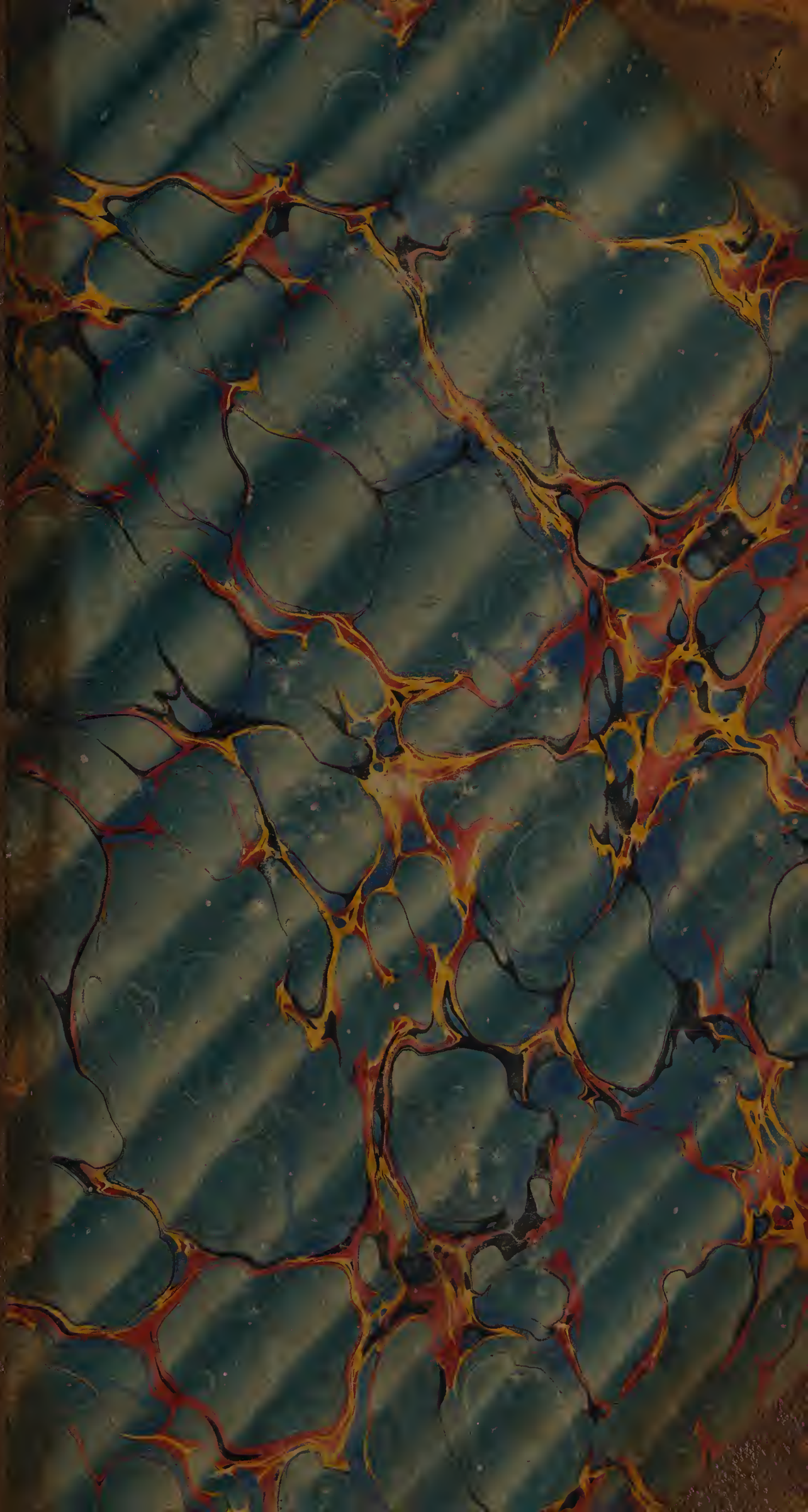

35TH CONGRESS, 2d Session. } HOUSE OF REPRESENTATIVES. { Ex. Doc. No. 105.

REPORT

OF THE

COMMISSIONER OF PATENTS

FOR THE YEAR 1858.

ARTS AND MANUFACTURES,
IN THREE VOLUMES.

VOLUME I.

WASHINGTON:
JAMES B. STEEDMAN, PRINTER.
1859.

In the House of Representatives,

March 2, 1859.

Resolved, That there be printed of the Mechanical part of the Patent Office Report five thousand copies for the use of the Patent Office, and fifteen thousand for the use of the members of the House of Representatives.

Attest:

J. C. ALLEN, *Clerk.*

United States Patent Office,
January 31, 1859.

Sir: As required by the 14th section of the act approved March 3, 1837, I have the honor to transmit herewith the Annual Report of this Office for the year 1858, which I have to request may be laid before the Congress of the United States.

I have the honor to be, very respectfully, your obedient servant,

J. HOLT,
Commissioner of Patents.

Hon. James L. Orr,
Speaker of the House of Representatives.

CONTENTS.

I.—COMMISSIONER'S REPORT.

II.—LISTS OF EXPIRED PATENTS.

III.—LIST OF PATENTS ISSUED.

IV.—DESCRIPTIONS AND CLAIMS.

REPORT

OF THE

COMMISSIONER OF PATENTS

FOR THE YEAR 1858.

UNITED STATES PATENT OFFICE,
January 31, 1859.

SIR: I have the honor to submit the following tables as illustrating the operations and condition of this office for the year closing the 31st December, 1858:

No. 1.

Number of applications for patents during the year 1858	5,364
Number of patents granted, including designs, re-issues, and additional improvements	3,710
Number of caveats filed	943
Number of applications for extensions of patents	24
Number of patents extended	20
Number of patents expired on 31st December, 1858	563

Of the patents granted, there were—

To citizens of the United States	3,668
To subjects of Great Britain	20
To subjects of the French empire	14
To subjects of other foreign governments	8
Total	3,710

The patents issued to citizens of the United States were distributed among the several States, Territories, &c., as follows:

New York	1,075
Pennsylvania	447
Massachusetts	438
Ohio	302
Connecticut	211
Illinois	155
New Jersey	126
Maryland	82
Indiana	82
Virginia	61
Maine	58
Michigan	54
Wisconsin	54
District of Columbia	52
New Hampshire	51
Rhode Island	48
Missouri	46
Vermont	42
Louisiana	34
Iowa	33
Mississippi	31
Kentucky	30
Alabama	24
California	23
North Carolina	22
Georgia	21
Tennessee	19
South Carolina	12
Texas	10
Delaware	8
Florida	4
Washington Territory	4
Arkansas	3
Minnesota	2
Kansas Territory	1
United States navy	2
United States army	1
Total	3,668

Of the 3,710 patents thus issued, 561 were for inventions relating to agricultural implements and processes, of which 152 were for improvements in reaping and mowing machines; 42 were for improvements in cotton gins and presses, and in packing cotton; 164 for improvements in the steam-engine; 198 for improvements in railroads, railroad cars, &c.; and 116 for improvements in the sewing-machine. Since the issue of the first patent for the latter to J. J. Greenough, in 1842, two hundred and eighty-five patents have been granted for

improvements upon it. This machine, so wonderful alike for the delicacy and accuracy as for the simplicity of its operations, may now be regarded as rapidly approaching perfection, and is destined to bless all lands with its truly beneficent ministrations. In a form so cheap as to be within the reach of the humblest household, it now enables a single female to perform, within the accustomed hours of labor, with slight fatigue, an amount of sewing which would be a painful task for twenty-five operatives stitching with the hand and needle. The belief is confidently entertained that at no distant day it will become almost as universal as were the distaff and spinning-wheel of the olden time; but, unlike these memorials of ceaseless toil, it will enter the homes of impoverished and suffering humanity, to lighten the burdens and brighten the lives of those whose elevation and happiness have been the unceasing care, as they are now the crowning glory, of the Christian civilization of the world.

No. 2.

Statement of moneys received at the Patent Office during the year 1858.

Received on applications for patents, re-issues, additional improvements, extensions, caveats, disclaimers, and appeals	$188,087 00
Received for copies, and for recording assignments	15,629 16
Total	203,716 16

No. 3.

Statement of expenditures from the patent fund during the year 1858.

For salaries	$82,073 41
Temporary clerks	42,355 03
Contingent expenses	37,803 90
Payment to judges in appeal cases	200 00
Refunding money paid into the treasury by mistake	374 75
Refunding money on withdrawals	30,386 65
	193,193 74

No. 4.

Statement of the condition of the patent fund.

Amount to the credit of the patent fund, 1st January, 1858	$39,719 46
Amount paid in during the year	203,716 16
Total	243,435 62
Deduct amount of expenditures during the year	193,193 74
Leaving in the treasury, 1st January, 1859	50,241 88

No. 5.

Table exhibiting the business of the office for seventeen years, ending December 31, 1858.

Years.	Applications filed.	Caveats filed.	Patents issued.	Cash received.	Cash expended.
1842	761	291	517	$36,505 68	$31,241 48
1843	819	315	531	35,315 81	30,776 96
1844	1,045	380	502	42,509 26	36,344 73
1845	1,246	452	502	51,076 14	39,395 65
1846	1,272	448	619	50,264 16	46,158 71
1847	1,531	533	572	63,111 19	41,878 35
1848	1,628	607	660	67,576 69	58,905 84
1849	1,955	595	1,070	80,752 78	77,716 44
1850	2,193	602	995	86,927 05	80,100 95
1851	2,258	760	869	95,738 61	86,916 93
1852	2,639	996	1,020	112,056 34	95,916 91
1853	2,673	901	958	121,527 45	132,869 83
1854	3,324	868	1,902	163,789 84	167,146 32
1855	4,435	906	2,024	216,459 35	179,540 33
1856	4,960	1,024	2,502	192,588 02	199,931 02
1857	4,771	1,010	2,910	196,132 01	211,582 09
1858	5,364	943	3,710	203,716 16	193,193 74

It will be observed that the depression under which the business of the office was laboring at the date of the last annual report has passed away, and that the rebound from the disastrous effects of the revulsion of 1857, then so confidently predicted, has already been fully realized. The applications of 1858 amount to 5,364 against 4,771 in 1857 and 4,960 in 1856, while the receipts show an excess over the expenditures of $10,522 42 against a deficit of $15,450 08 in 1857.

From the most reliable sources of information to which access could be had, the subjoined table has been compiled, with a view of exhibiting the comparative progress of inventions for a single year in the several countries therein enumerated.

Country.	Patents granted in 12 months.	Population.
France	5,820	35,781,628
United States	3,710	23,191,918
Great Britain (sealed)	1,890	27,511,447
Belgium	1,406	4,426,202
Austria	703	36,514,466
Sardinia	171	4,368,972
Saxony	107	1,828,732
Sweden	64	3,482,541
Victoria (Australia)	53	410,766
Prussia	49	16,923,721
Bavaria	41	4,519,546
Netherlands	39	3,203,232
Russia	26	69,660,146
Hanover	20	349,958

It is a fact, as significant as it is deplorable, that of the 10,359 inventions shown to have been made abroad during the last twelve months, but forty-two have been patented in the United States. The exorbitant fees exacted of the foreigner, and the severity of the offensive discrimination established to his prejudice, afford a sufficient explanation of this result. Were we to judge alone from the ninth section of the act of 1836, it might well be concluded that the government of this country regarded an invention made beyond the seas as something intrinsically dangerous, if not noxious, the introduction of which it is morally just and politically wise to burden with taxation, just as you would thus burden the importation of some foreign poisonous drug. There is a loftier view of this question, and one deemed more in harmony with the progressive spirit of the age—a view which hails the fruits of the inventive genius, in whatever clime matured, as the common property of the world, and gives them cordial welcome as the common blessings of the race to whose amelioration they are devoted.

Since the month of November, 1857, a board temporarily organized, and consisting of three examiners, specially detailed for this duty, have been occupied in the examination of appeals from the decisions of the primary examiners to the Commissioner. During the past year they investigated and disposed of 535 cases, in most of which they have submitted elaborately prepared reports. The results of their action have been eminently satisfactory, and have commanded, it is believed, the entire confidence of the country. The withdrawal of these officers from their respective classes has practically reduced the examining corps to nine instead of twelve, the number at which it was fixed in 1856. The applications of that year amounted to 4,960, those of 1858 amounted to 5,364, so that with a reduced force there is a heavy increase of the labor to be performed. This is unfortunate and to be deplored in reference alike to the public and the inventor. The former has a deep interest in that thorough and faithful examination of applications contemplated by the patent laws, in order that rights which belong to all may not be unjustly monopolized by one; the latter has the same interest, lest a patent, hastily and incautiously granted, should prove, in his hands, but a lure to draw him into harassing and impoverishing litigation. The legalization of this board, and the restoration of examiners to the three classes now virtually deprived of them, would furnish at once the relief required.

Since the establishment of this temporary board of appeals, the classes from which its members were respectively withdrawn have been in charge of those who have the rank and pay of assistant examiners only. In the new position, however, assigned them they have had imposed upon them the responsibilities of examiners in chief, and it is due to them to say that they have discharged their duties with zeal and fidelity. In my judgment, it is but just that they should be compensated according to the character of the services they have rendered. Assistant examiners similarly circumstanced were provided for by Congress in 1856, and I commend the claims of those now referred to to your favorable consideration.

There are now on file in this office upwards of twenty thousand models belonging to rejected cases. For a series of years they have,

for want of sufficient room, been kept in a condition little favorable to their preservation or usefulness. They present a chaotic and partially dilapidated mass of mechanical devices of no value as compared with the space they will occupy, and the expense their repair, arrangement, and preservation will involve. The fact that they are illustrations of inventions which have been determined to be not patentable, generally for want of novelty, is proof conclusive that they are, in effect, but duplicates of illustrations previously existing, and a large portion of which are already preserved by the office in patented cases. There would seem, therefore, to be no adequate motive for permitting them longer to encumber the building. The west wing of the Patent Office, to which, if retained, they must be transferred, is approaching completion; and the present moment, before the heavy expense incident to their restoration and custody is incurred, is deemed appropriate for deciding the final disposition which shall be made of them.

The defects in the existing patent laws have again and again been pointed out in the annual reports of this office, and are believed to be thoroughly understood and appreciated by the country. The subject has been so often and so earnestly pressed upon the consideration of Congress, that I cannot regard it as my duty, if, indeed, it would be my privilege, to renew the discussion at this moment. I cannot, however, forbear expressing again, with emphasis, my conviction as to the necessity of a change in that feature of the existing law which withholds from parties to controversies pending in this office the process of subpœna for compelling the attendance of witnesses and the production of papers. Every judicial tribunal in the land, from the highest to the lowest, no matter how paltry the amount in contest, is armed with this authority, without which, indeed, the administration of public justice would prove but little better than a mockery. With the issues of fact to be tried here are often bound up the entire fortunes of inventors, and the interests they involve are to be estimated by thousands and hundreds of thousands of dollars. Under the pressure of legislation, the parties to these issues are driven into this office, and compelled to have them investigated and decided here, while at the same time they are denied the only instrumentality by which their rights can be vindicated and maintained. They are thus forced to beg their testimony as an alms, or buy it as they would their provisions upon the shambles of the market. They are completely at the mercy of those witnesses who sell the truth, and are, of course, often subjected to the most onerous, and not unfrequently to the most infamous exactions. It is a gross and monstrous injustice, which admits of no defence, of no palliation, and which cannot fail to shock the moral sense of all who, in the heady current of political life, can be induced to pause long enough to contemplate its revolting features. It may well be doubted whether an evil of such deformity, and unredeemed as it is by any pretence of right or reason, would, if exposed as this has been, under any other form of government upon the earth, have been permitted to endure for a single day.

In view of the frequency with which the proposed changes in the patent laws have been urged upon the notice of Congress, it has been with extreme diffidence that I have ventured even a passing allusion

to the subject. A just estimate of the magnitude of the issues of which this office has charge, and a conviction of the vastly increased efficiency which these changes would secure to its administration, must be my apology. A class of men who have given to their native land and to the world the cotton gin, the steam-engine, the electric telegraph, the reaper, the planing and the sewing machines—inventions whose beneficent influences tell with measureless power upon every pulsation of our domestic, social, and commercial life—may well be pardoned for believing that their wants should not be treated with entire indifference by that body which represents alike the intellect and heart, as it does the material interests of the great country of which they are citizens.

J. HOLT.

Hon. JAMES L. ORR,
Speaker of the House of Representatives.

ALPHABETICAL LIST OF PERSONS WHOSE PATENTS FOR INVENTIONS AND DISCOVERIES HAVE EXPIRED DURING THE YEAR 1858.

No.	Patentee.	Invention or discovery.	Class.
3691	Abbé, Alanson	Corselet for curved spines, &c	20
4001	Ackerman, Gershom L	Wheels, carriage	10
376	Adams, Nathaniel	Moulding and pressing brick	13
3769	Adams, Seth	Printing-presses	18
3744	Adams, Thomas F	Printing in colors, machine for	18
3416	Allen, William K	Ploughs, adjusting	1
3827	Amelung, H. A	Lard, preparing	4
3711	Ansell, John, and James Gallery.	Grist-mills	13
3468	Arnold, Erastus	Grinding grain, portable mill for	13
3665	Arnold, William E	Washing-machines	17
3618	Avery, Wyllys	Turning wood tapering	14
3508	Bailey, Loammi	Stoves	5
3683	Baker, Horace	Barrels, machinery for making	14
3731	Baker, C. B., and E. Gifford	Brick-presses	15
3552	Barber, Sprague	Steam valves, conical seat	6
3843	Barbour, Horace, and John Gleason.	Carding fibrous substances, self-stripping card for.	3
3661	Barkdull, Joseph S	Crimps for collar pads	16
3676	Barnum, Daniel	Boiler, steam-engine, regulating the supply of water to.	6
3600	Bartley, Jonathan P	Shingle-cutter	14
3755	Bartol, Barnabas H	Steam valves, method of connecting the action of the cut-off and.	6
3707	Barton, Gardner, jr	Engines, fire	11
3438	Battin, Joseph	Coal, breaking	5
3539	Bay, James M	Railroads, connecting cast iron rails for	9
251	Bayley, Moses	Rotary press for woollen goods	12
3645	Baylor, Peter	Boring-machines, method of securing, to the article to be bored.	14
3451	Bazin, S. and J. A	Ropes, machinery for laying and winding the same into coils.	3
3767	Beecher, Mather	Bark-mill for grinding tanners' bark	13
3557	Bennet, William	Ships, cellars, &c , mode of calking the seams of.	7
3571	Bennett, Epenetus A	Trusses	20
3454	Benson, Joseph	Oil-feeders	5
3613	Bent, Thomas, assignor to W. and R. P. Resor.	Stoves, cooking	5
3556	Bentley, Harness	Churns	1
3470	Bentz, Samuel	Stoves, cooking	5
169	Bigelow, Erastus B	Lace, power loom for weaving	3
3611	Bingham, Albert	Bolt in door fastenings, operating the	2
3819	Birdsell, James	Cultivator teeth	1
3699	Black, John	Mill-stones, dressing	15
3730	Blaney, Benjamin	Warming buildings, apparatus for	5
3399	Booth, John, and William H. Stevenson.	Brick-moulding machines	15
3636	Bradley, Jeptha	Furnaces, air-heating	5
3834	Bradley, Leman	Furnaces for smelting iron	2
3853	Bradley, Leman	Furnaces of steam boilers	6
3397	Brayton, William H	Loom for regulating the delivery of the warp from the warp beam.	3
3525	Breuer, Dierck	Planting-machines	1
3596	Broadmeadow, Simeon	Steel, manufacture of	2
3605	Broadmeadow, Simeon	Iron, wrought, mode of obtaining directly from the ore.	2

Persons whose patents for inventions have expired.

No.	Patentee.	Invention or discovery.	Class.
3409	Broadmeadow, S., assignor to Wm. Green.	Furnace, reverberatory, for smelting or puddling iron.	2
3455	Brower, Jacob W	Smut-machines	1
3770	Brown, Benjamin H	Brick-presses	15
3704	Brown, Charles W	Tonguing and grooving machines	14
3474	Brown, Harvey	Ploughs, combined	1
3688	Brown, William	Tanning	16
3641	Bruce, Aaron F	Hemp and flax break	3
3680	Buchanan, Ryburn	Bolter for bolting flour	13
3484	Buel, Abel B	Harness, check-hooks for	16
3476	Bulkley, Ralph	Propelling boats and other vessels, oblique paddle-propeller for.	7
3752	Bull, J. H. and R. H	Balance-spring	12
3608	Burke, W. A., assignor to Amoskeag Manufacturing Co.	Dyeing yarn, machinery for	4
3722	Burt, Henry	Machinery, governor for regulating the movements of mill-wheels, steam-engines, and other.	13
3519	Bush, Rosswell	Stoves, cooking	5
3402	Butler, Constant B	Hemp-breaker and cleaner	3
3712	Butterfield, Benjamin	Railroads, key for fastening the rails of, to their chairs.	9
3640	Camp, Henry W	Stoves, cooking	5
3530	Carnegy John	Water-wheels, current	11
3741	Carr, W. and J., and J. Shannon	Fish-nets	3
3521	Carver, Eleazer	Ginning cotton, saw-gin for	3
3689	Carver, George	Brushes, scrubbing	17
1710	Cary, Jonathan H	Turning spools	14
3558	Cathcart, Charles W	Threshing-machines	1
3733	Chamberlin, Edward	Saleratus, making	4
3774	Chandler, Adoniram	Life-preserver	7
3852	Chandler, Thomas, and Asa D. Reed.	Winnowing-machines	1
3679	Chatterton, Richard D	Paddle-wheels of steamboats, &c	7
3445	Chesnut, William D	Cars, railroad, locomotive, &c., coupling bars for.	10
3572	Childs, A. D	Horse-power for driving machinery	13
3547	Choate, Warren C	Square-rigged vessels, forming and rigging the sails of.	7
3656	Chollar, J. B., and H. Parmlee, assignors to Chollar, Jones, and Low.	Stoves, railway	5
3723	Clark, Edwin	Cutters, sausage meat	17
3499	Clark, James M	Smut-machines	1
3400	Cline, John	Stoves, air-tight	5
3660	Cochrane, John	Boilers, steam, &c , regulating the supply of water to.	6
3422	Coffin, James B	Washing-machine	17
3737	Cole, Erastus E	Saws, circular, for cutting off piles under water.	14
3696	Cole, Thomas, and John Littlefield.	Winnowing-machines	1
3837	Cole, Tillott	Shingles, cutting, machine for	14
3548	Coleman, Obed M	Piano-fortes	18
3395	Colton, Sabin	Lock, combination	2
3820	Combs, John P	Tailors' measures	21
3872	Converse, William F., and Richard H. Penny, and Richard H. Hannaford.	Bedsteads, cutting screws in the posts and on the rails of.	17

Persons whose patents for inventions have expired.

No.	Patentee.	Invention or discovery.	Class.
3460	Cook, George W	Churns	1
3740	Cook, Roswell	Water-wheels	11
3778	Cooper, Isaac	Bedsteads, sacking-bottoms for	17
3439	Cope, S. and J. D.	Bee-hives	1
3456	Cornell, Ezra	Cutting trenches and laying pipes	9
3449	Covel, Emerson G.	Water-wheels, combined	11
3614	Cox, John	Tanning	16
3464	Cram, Smith	Pressing and raising weights, machines for.	12
491	Crompton, William	Loom, figure power	3
3481	Cranage, Thomas	Boots, cutting	16
3867	Crawford, A. B	Hulling clover machines	1
3732	Crawford, Benjamin	Steam-engines, condenser and boilers of.	6
3856	Cutter, Calvin	Trusses	20
3638	Cutting, James A	Bee-hives	1
3812	Darling, Eliakim C	Trusses	20
3697	Davenport, Charles, assignor to Davenport & Bridges.	Railroad truck-frames	9
3836	Davison, Clement	Stereotyping	18
3910	Davy, John T	Bakers	5
3788	Day, Horace H	India rubber goods corrugated and sherred	22
3822	Dennett, Daniel	Wind-wheels, horizontal	11
3598	Deutsch, Edward	Cements and pigments, water-proof	4
472	Dewey, David	Rake, horse	1
3537	Dodd, Robert J	Cupping instrument	20
3485	Dodge, J. Smith	Teeth, setting artificial	20
3632	Downey, Robert	Leather, making	16
5403	Doyen, J. Le	Compounds, disinfecting	4
3500	Draper, Francis	Lamp-caps	5
3559	Dubosq, Henry	Suspender buckles	21
3780	Dupuy, Eugene	Nursing-bottle	20
3709	Dyzert, William	Cultivators	1
3582	Eddy, R. H., assignor to D. Jarves and New England Glass Company.	Lamp-caps	5
3789	Ellis, Zabina	Tallow, &c., cutting	4
3695	Embree, James	Scythe-handles, &c., machine for making	14
3869	Ericsson, John	Propelling ships	7
3803	Esterly, George	Harvesting-machines	1
3506	Evans, David	Refrigerator	17
3518	Farrar, Alonzo	Reflectors, metallic	5
3544	Fatman, Joseph	Sealing-wax, igniting	4
4476	Ferguson, Robert, and John Clark.	Printing calico	18
3502	Ferguson, Hiram	Water-wheels	11
3591	Fernald, Henry B	Lamps	5
3693	Field, William	Rolling irregular figures to a pattern, machine for.	2
3533	Fink, Julius	Ranges, kitchen	5
3828	Fish, Ezra	Sewing-machines	1
3790	Fish, Randal	Hats of leather, skins, and other materials, machinery for forming.	16
3823	Fitzgerald, Elisha	Braid, Tuscan, &c., weaving	3
4702	Fontaine de Marreau, Peter A. L.	Barometers	8
3428	Forsyth, William F	Doors, sliding	9
3751	Fowler, De Grasse	Pins, arranging and sticking in papers	2
3771	Francis, William, and William Johnson.	Marking and lettering packages, &c	18

Persons whose patents for inventions have expired.

No.	Patentee.	Invention or discovery.	Class.
3646	Fulkerson, Jacob D	Bee-hives	1
3626	Fulton, Calvin	Stoves, cooking	5
3800	Gale, Dan	Uterine injections, instrument for	20
3657	Gale, Isaiah	Boot-shanks, elastic	16
3503	Gardiner, Perry G	Presses, cotton	12
3534	Garrison, H. and G	Sugar candy	4
3581	Gathing, Richard I	Seed-planters	1
3826	Gilbert, Joseph	Chimneys, building	5
3716	Gilman, Alonzo	Printing-press	18
3715	Gilman, Eliphalet C	Laths and clapboards, sawing	14
3461	Goodyear, Charles	India rubber fabrics	22
3462	Goodyear, Charles	India rubber fabrics	22
3619	Gordon, James W. W	Ointment, mercurial, machine for making	4
3504	Gori, Ottoviano, and P. Ernst	Piano-fortes	18
3785	Gould, Ezra	Wool, combing	3
3453	Grandjean, Auguste	Composition for dyeing the hair	4
3658	Groat, Jacob	Grinding grain, cylindrical mill for	13
3659	Groat, Jacob	Hulling and pearling rice	1
3817	Groat, Jacob	Smut-machines	1
3564	Grout, John R	Drill or borer, governing the feed of	2
3496	Grout, John H., and F. M. Ray.	Plates, door	2
5028	Grouvelle, P. and L. N., and E. Mouchot, assignors to B. Rodriguez.	Ovens, bake	5
3794	Guernsey, Calvin O	Grain, fanning mill for	1
3473	Hager, Abraham	Sugar-boilers	4
3846	Haines, Alford C	Baths, vapor, apparatus for	20
3871	Hains, Samuel B	Horse-power for driving machinery	13
3480	Halsted, Oliver	Exercise, machines for producing	17
3664	Hamlin, Lemon	Bee palaces	1
3809	Hammond, Thomas	Bonnets, portable	3
3435	Harley, Benjamin F., and John D. Morris.	Hinges, butt, moulds for	2
3684	Harris, James S	Silk reels	3
3627	Hatch, George W	Carriages, wagons, &c., couplings for	10
3440	Hatch, Julius W	Buckles	2
3574	Hatfield, Jehu	Interest, machines for calculating	8
3505	Heck, John	Mill bush	13
3821	Hemingway, Daniel	Fireplaces	5
3538	Herbert, James	Ploughs for excavating ditches	1
3628	Hermance, John C	Stoves, cooking	5
3524	Herr, Samuel L	Grinding corn and cobs, mill for	13
3777	Hills, Dudley	Ploughs, gathering weeds under the furrow slice of.	1
3483	Hinton, Jacob H	Brooms, machine for making	17
3550	Hoe, Richard M	Inking-rollers	18
3551	Hoe, Richard M	Printing-presses	18
3687	Hoe, Richard M	Printing-press	18
3761	Holmes, James G	Invalids, chairs for	20
3735	Horn, Edwin B	Lamps, self-supplying	5
3413	Hoskins, Thomas H	Corn-planters	1
3447	Hotchkin, Ashley	Stoves, cooking	5
3431	Hovey, William	Straw-cutters	1
3649	Hubbell, William W	Fire-arms	19
3772	Hurd, Joseph	Sugar, cleaning	4
3854	Hurd, Joseph	Chimneys, caps for regulating the draught of	5
3673	Huse, Enoch	Tobacco, renovating	4

Persons whose patents for inventions have expired.

No.	Patentee.	Invention or discovery.	Class.
389	Imlay, Richard	Supporting bodies of cars, &c	8
3868	Isbister, Caleb	Nail-cutting machine, feeder for	2
3603	Isham, Henry	Tailors' measures	21
3403	Ives, Joseph Shaler	Piano-forte, tuning-pins for	18
3637	Jackson, Amos	Presses	12
3398	James, Aaron E	Bee-hives	1
3588	James, Henry B	Smut-machines	1
3642	Jenks, Jacob	Stone-cutters	15
3793	Jennings, Isaiah	Lamps, volatile, ingredients for burning	5
3866	Johnson, Edwin F	Steam-engines, locomotive	6
3701	Johnson, Israel G	Shingles, sawing	14
3585	Johnson, John, and O. Freeman, assignor to W. H. Tuttle.	Cracker-machines	17
3510	Johnson, Nelson	Water-wheels	11
3441	Jones, S. S	Stoves, cooking	5
3750	Katen, Lewis	Block-letters, making	18
3713	Kaufman, David	Washing-machines	17
3728	Kendall, Thomas	Bonnet tips, apparatus for pressing	3
3682	Kenney, Cyrus	Hinges, butt blank, machinery for trimming.	2
3690	Kenney, Cyrus	Hinges, butt, of wrought iron, machinery for making.	2
3717	Kenney, Cyrus	Hinges, butt, of wrought iron, bending the knuckles of.	2
3758	Kephart, Peter	Fruit and vegetable preservers	17
3531	Kesselmeier, Frederick	Clock pendulums	8
3535	Kesselmeier, Frederick	Stoves, cooking	5
3442	Ketchum, Archibald C	Potato-diggers	1
3831	Ketchum, William F	Reaping-machines	1
3848	Ketler, Adam	Stoves, cooking	5
3639	Kettering, Adam, and A. Vogle	Tanning	16
3870	Kilburn, W., and F. Haines	Seed-planters	1
3792	Kingman, Henry W	Bedsteads, bureau	17
3671	Kymer, John	Furnace grate bars	5
3489	Lamb, Seth	Presses, cotton	12
3511	Lane, Isaac C	Loom, rotary temples for	3
3662	Lawrence, Henry	Buckles	2
3748	Lauve, Norbert	Ratan and cane cutters	1
3719	Law, Hervey	Match-splints, cutting	14
3448	Lear, P., and E. Buck, assignors to P. Lear.	Paddle-wheels, horizontal	7
3526	Leland, Abner	Stoves, cooking	5
3426	Lester, Ebenezer A	Steam-engines, vibrating	6
3700	Lester, Ebenezer A	Wheels, cast iron railroad-car, making	10
3753	Lewis, James	Stoves, cooking	5
3692	Lewis, Winslow, sr., and Benjamin Hemmenway.	Lamps, light-house	5
3714	Ling, Thomas	Churns	1
3736	Locke, Edward	Steam-engine, rotary, exhausting the case of a.	6
3465	Long, Israel	Ploughs, wheel	1
3459	Loper, Richard F	Propeller, rotary inclined, for vessels	7
3685	Loper, Richard F	Guns, constructing large	19
3786	Loper, Richard F	Propellers, submerged, coupling the shafts of, for steamboats and other vessels.	7
3427	Loring, Thomas	Hinges, flask for moulding	2
4540	Low, Charles	Steel and iron, manufacture of	2
3472	Lukins, Ephraim	Washing-machines	17

Persons whose patents for inventions have expired.

No.	Patentee.	Invention or discovery.	Class.
3602	Lyman, Eldridge	Tenoning and mortising machines	14
3830	Lyon, James H	Stoves, cooking	5
3652	Madden, John	Carriages, detaching horses from	10
3851	Maguire, John	Flats, manufacture of	3
3407	Mallory, Meredith	Smut-machines	1
3842	Maples, Darius W	Lock, permutation, for vaults, safes, &c	2
3743	Marshall, William, and J. B. Thursly.	Hides, raw, machine for cutting	16
3840	Martin, John, jr	Presses, cheese, self-acting	12
3494	Mayo, John K	Saws, circular, for sawing lumber, &c., manner of applying.	14
3540	McAll, William	Corn-shellers	1
3615	McCauley, William L	Boots, cork-sole	16
3578	McCollum, James	Carriages, wrought-iron wheels for	10
3801	McCully, Francis, jr	Bobbins, method of operating the, in machinery for spinning fibrous substances.	3
3437	McDonough, Thomas	Steam-engines, conical balance valves of	6
3478	McWilliams, Alexander	Fruit-gatherers	1
3477	Merritt, Caleb	Bonnets and hats, machinery for pressing.	3
3412	Miller, John	Saw-mills, tail-blocks of	14
3775	Miller, Rudolph	Corn-fodder, cutting and crushing	1
3570	Mills, Peter	Stoves, cooking	5
3824	Mini, G	Lampblack, making	4
3452	Montgomery, William	Hemp, &c., heckling and spinning	3
3745	Moody, R., and S. D. Dakin	Dock, floating dry, basin to be used in connexion with a.	9
3644	Mooers, Jonathan	Ploughs	1
3490	Moor, Albert	Harpoon	7
3396	Moore, George R	Balances	12
3414	Moreau, Gabriel H	Propelling steam and other vessels	7
3415	Moreau, Gabriel H	Steam-generators	6
3746	Morewood, Edmund P	Iron and copper, coating, with tin and other metals.	2
3609	Morgan, Amos	Drilling-machines	2
3675	Morgan, Morgan, jr	Fire-fenders	5
3565	Morris, Edmund	Plates, door, and signs, of separate types, &c., method of making.	2
3738	Morris, Edmund	Paper, sand, glass, or emery, making	3
3516	Mumford, Silas G	Cotton, wool, &c., burring and cleaning	3
3514	Myers, Gideon	Composition for aqueduct pipes	4
3560	Naylor, Peter	Roofs of houses, &c., securing tin plate, &c., on.	9
3406	Nelson, Robert	Cultivators	1
3549	Newbrough, William	Washing-machines	17
3747	Newell, Robert	Lock, combination, for doors, safes, &c	2
3479	Nichols, Eli B , and D. Marsh	Grinding grain, mills for	13
3865	Nicolls, Gustavus A	Railroads, safety-switch for	9
3668	Nicolson, Samuel	Ice-breaker for boats and other vessels	7
3599	Nield, James	Looms, power	3
3486	North, Oren S	Labels for mail-bags	2
3563	Noyes, Isaac	Salt making	4
3757	Owens, Edwin	Ditching machines	9
3832	Packard, M and C. B	Grain, separating, from straw	1
3705	Pagin, John	Smut-machines	1
3463	Palmer, Moses	Wheel-hubs, lining metallic boxes for	10
3678	Palmer, Waterman B	Logs, setting saw	16
3847	Parish, Nathan	Washing-machines	17

Persons whose patents for inventions have expired.

No.	Patentee.	Invention or discovery.	Class.
3825	Park, Jesse K	Manifold letter-writers	18
3443	Parker, E. and T	Composition for glazing	4
3629	Parker, Joseph J	Saw-mills, tail and head blocks of, self-setting.	14
3482	Partridge, Benoni F	Rakes, grain	1
3429	Peas, Abram	Steam-engine, rotary	6
3466	Peck, George	Presses, cotton	12
3721	Peck, Jacob	Corn and cane cutters	1
3670	Peck, Lauren M	Vise, standing or bench	14
3.97	Perry, Stuart	Gases or vapors, engine to be operated by the explosive mixtures of inflammable.	6
3762	Peters, William T., executor of Ithiel Town.	Bricks, moulding	15
3433	Pettes, Simon	Stoves, cooking	5
3991	Pfisher, D., assignor to John Keller.	Stone, sawing and dressing	15
7269	Phillips, W. H	Fire, apparatus for extinguishing	5
4124	Pilbrow, James	Railroads, atmospheric	10
3509	Pittenger, William	Cutters, sausage-meat	17
542	Pitts, J. A. and H. A	Threshing and cleaning grain	1
3859	Post, Lewis	Fracture apparatus	20
3634	Post, Nathan	Hames, horse	16
3408	Potter, B. and A. F	Lathe for turning boats' oars	14
3861	Potter, William L	Stoves, cooking	5
3562	Pratt, Loea	Seed-planters	1
3815	Prescott, Jedediah	Presses, cotton	12
3739	Provost, William F	Presses, cotton	12
3703	Putney, David	Water-wheels	11
3457	Quail, John H	Cars, railroad, for turning curves	10
3694	Rand, John	Vessels of soft metal, method of making	2
3595	Reid, Elisha	Journals, preventing, from heating	13
3760	Reinhardt, C. C., and V. Carter	Trusses	20
3607	Reynolds, Griffin, jr	Hemp cradles	1
3653	Reynolds, John	Carriage-bodies, hanging	10
3841	Reynolds, Oliver	Bee-hives	1
3425	Reynolds, R., jr	Gin, cotton, roller	3
3681	Reynolds, S. G	Spike-machines	2
3589	Rice, Dennis	Harrows, sward-cutting	1
3857	Richards, Richard	Soles, cutting	16
3522	Richardson, Samuel S	Fitting ladies' dresses	21
3643	Ricketts, Lovering	Piano-fortes	18
3807	Riggs, John W	Stoves, cooking	5
3417	Riley, William W.	Ointments for piles	4
3779	Ringgold, Samuel	Saddles, construction of	16
3724	Ripley, Ezra	Metal, method of making patterns for casting hollow ware and other articles of.	2
4189	Ritterbrant, Louis Antoine	Boiler, steam, removing incrustation of	6
3796	Robbins, Zenas C	Boilers, steam, &c., heater of	6
3804	Robinson, J. D	Water-wheels	11
3555	Robinson, Peter	Steam-engine and other boilers, supplying air to consume the combustible gases, &c., that escape from the furnace of.	6
3672	Rodgers, James	Sewing with a running stitch, machine for.	16
3810	Roe, Livingston	Fractures, apparatus for	20
3849	Rogers, Calvin B	Saws, machinery for filing	14

Persons whose patents for inventions have expired.

No.	Patentee.	Invention or discovery.	Class.
3765	Rogers, Henry J	Telegraph signal	9
3401	Roome, William J	Composition for leather, water-proof	4
3575	Roop, Benjamin	Mash-tubs	4
3726	Rose, William	Wood, shaving	14
3727	Rose, William	Hoops, splitting	14
3590	Ross, Charles	Rules or measures for boards, leather, &c.	8
3816	Ross, John G	Wheels, tide	13
4226	Rowan, William, assignor to Thomas Murray Megget.	Boxes, anti-friction, for axles, &c.	10
3749	Rowland, Daniel	Coffee-pots	17
3783	Roys, Franklin	Bread, knife for cutting	17
3776	Russell, Thomas J	Boring timber, machine for	14
3467	Rust, Samuel	Lamp-wicks, raising	5
3498	Sabins, David	Trusses	20
3446	Sanderson, Robert	Pressing, lever-powers for	12
3838	Sanford, Levi	Planes, bench, setting the bit in	14
3686	Savage, E., and S. North	Fire-arms	19
3512	Savage, Elisha C	Hooks and eyes	20
3768	Sawyer, Nathan	Brick-presses	15
3806	Saxton, J., and G. Elliott, assignors to Harned & Elliott.	Stoves, air-tight, self-regulating	5
3532	Scammon, Samuel, and R. Nason	Smut-machines	1
3616	Schermerhorn, J. B	Churns	1
3725	Sealy, Richard	Hydro-pneumatic apparatus for raising beer, &c., from casks.	11
3594	Sebo, John	Awnings	22
3475	Sellers, C. and G E	Pipes, lead, machinery for manufacture of	2
3631	Sewell, William, jr	Presses, cotton	12
3580	Shailer, Thomas	Trap for catching animals	22
3568	Sherard, John H	Ginning cotton, saw-gin for	3
3536	Shnell, James S	Carriages, disengaging horses from	10
3802	Sickels, Frederick E	Steam-engines, opening and closing the valves of.	6
3845	Sickels, Gerard, assignor to G. L. F. Griswold.	Bedsteads, sofa	17
8988	Sievier, Robert W	Looms for weaving piled fabrics without the figuring wires.	3
3892	Slane, P. F., and John Golding	Lamps, glass, making	5
3574	Slater, Joseph R., and S. G. Pratt.	Hames, horse	16
3515	Smart, John	Stoves	5
3720	Smedley, Jeffery	Brick-presses	15
3576	Smith, Aaron	Ploughs	1
3579	Smith, Aaron	Ploughs, double	1
3404	Smith, David	Pressing, machines for preparing tobacco for.	12
3773	Smith, Elisha	Friction-matches	4
3718	Smith, Joseph	Excavator, scoop, or dredging-machine	9
3621	Smith, William H	Cements, making	4
3569	Snyder, Elisha S	Smut-machines	1
3586	Soule, William	Washing-machines	17
3742	Southall, Thomas, and Charles Crudgington.	Iron and steel, process of manufacturing, &c.	2
3635	Spicker, Charles F	Coloring and hardening wood	4
3729	Sprout, Erastus T	Carriages, spring-brace for	10
3787	Squier, John B	Saw-mill, setting logs on the carriage of a.	14
3829	Stanley, William	Wheat-fans	1

Persons whose patents for inventions have expired.

No.	Patentee.	Invention or discovery.	Class.
3669	Stanton, Henry	Saw-mill carriages, for steadying the logs thereon.	14
3808	Stearns, Nathaniel P	Saw-mills, setting saw-logs and opening and shutting gates of.	14
3543	Stephenson, Marcus R., and O. Edwards.	Lock, door, combination	2
3546	Stephenson, Marcus R., and O. Edwards.	Locks for banks, safes, vaults, &c	2
3651	Stephenson, Marcus R., and O. Edwards; Marcus R. Stephenson, assignor to Edwin Holman.	Locks for banks, safes, &c	2
3667	Stetson, Francis M., and John Eaton.	Saw-mills, setting logs on the carriages of.	14
3862	Stevens, John H	Boxes, machinery for preparing wood for making.	14
3666	Stevens, Pelatiah, jr	Boot-crimps	14
3553	Stevens, Phineas	Spinning, flier and dead-spindle for	3
3863	Stickney, Gage	Hinges, butt, planing and dressing the knuckles on their inner sides.	2
3858	Stigleman, Calvin, and A. Seely.	Saws of saw-mills without a gate, straining the.	14
3764	Stiles, A. C	Chairs, rocking	17
3567	Stimpson, Albert	Water-wheels	11
3587	Stimpson, H. H	Ranges, cooking	5
3592	Straub, Abraham	Smut-machines	1
3612	Straub, Isaac	Stoves, cooking	5
3620	Stuart, Frederick A	Threshing-machines	1
3647	Stuart, Frederick A	Forges, blacksmiths'	2
3604	Stutton, Samuel G	Scrapers for repairing and making roads, &c.	9
4277	Tatham, I., and D. Cheetham	Roving in cars, mode of laying	3
3864	Taylor, Anthony	Ploughs	1
3791	Taylor, Eliakim	Straw-cutters	1
3811	Taylor, Ezra	Straw-cutters	1
3418	Taylor, John	Anvils, machine for making	2
3593	Taylor, Samuel	Brushes, trimming the bristles of, &c	17
3411	Theaker, Thomas C	Saw-mills, tail and head blocks of	14
3501	Thompson, Ambrose W	Ranges, kitchen	5
3542	Thompson, John	Ploughs	1
3650	Thorndike, John H	Pipes, supply, construction of, for aqueducts.	11
3766	Thorp, John	Hook-spinner and twister, whirling and rotary ring.	3
3545	Tillman, Samuel D	Stoves, apparatus for regulating the heat of.	5
3763	Timby, Theodore R	Water-wheels	11
300	Titcomb, E. M	Spinning woollen roving	2
3513	Tobin, John	Lamp, lard	5
3450	Tolles, Elisha	Cars, railroad, to prevent accidents from what are called "snake-heads."	10
3850	Tower, Jonas	Iron or other ores, process of reducing, to the metallic state by coating them with certain fluxes.	2
3756	Trail, Archibald	Ships and other vessels, strengthening the sails of.	7
3805	Tucker, Edwin	Turning irregular forms, machinery for	14
5261	Turnbull, Alexander	Tanning	16
3622	Twitchell, Mark	Brick-presses	15

Persons whose patents for inventions have expired.

No.	Patentee.	Invention or discovery.	Class.
3782	Henry G. Tyer & John Helm	India rubber, maching for cutting	22
3855	Valentine, Samuel L	Water-wheels	11
3487	Varnel, Reuben C	Cloth, brushing and winding	3
3818	Vermillion, Dennis	Excavator or drag for removing mud, &c., in beds of rivers.	
3471	Verplank, Isaac B	Buckles	
3708	Vestal, Aaron H	Potatoes, keeping sweet	17
3458	Vine, William	Cutlery, cleaning and polishing	2
3606	Von Schmidt, Peter	Propellers, submerged	7
3601	Wade, Robert M	Mill bush	13
3655	Wager, James	Stoves, cooking	5
3623	Walker, George	Furnaces for heating buildings	5
3436	Walker, Rd., and J. McIntire	Loom, knitting	3
3434	Walters, George T	Grinding-mills	13
3528	Ward, Hammond	Stone, dressing	15
3491	Waring, George E	Furnaces, portable	5
3759	Waste, Oramel W	Chronometer escapement	8
3423	Watkins, David	Wheat-fans	1
3625	Weaver, Daniel	Water-wheels	11
3577	Webb, Benjamin	Saw-mill carriages, self-setting apparatus for setting logs on.	14
3617	Webster, James W	Smut-machines	1
3420	Wiseman, Joseph	Paints, fire and water-proof	4
3663	Wemple, Jacob V. A., and G. Westinghouse.	Grain-separators	1
3781	West, Christopher	Lamps, construction of	5
3554	West, George R	Bee-hives	1
3624	White, James	Stoves	5
3497	Whitman, L. and Ezra, jr	Threshing-machines	1
3795	Whiton, Lyman	Stays for supporting spine of the human body.	20
3860	Wieting, Archibald	Stoves, cooking	5
3654	Wight, Oliver B	Washing-machines	17
3706	Wilkinson, Thomas	Currycombs	2
3797	Wilson, Alexander M	Streets, machine for sweeping	9
3784	Wilson, Ebenezer	Lard, rendering	4
3839	Wilson, William	Latch, mortise, for doors	2
3583	Wiszt, John A	Water and animal power	11
3529	Wolfe, T. Jefferson	Pumps	11
3405	Wood, Simeon	Shingles, shaving	14
3495	Wood, William	Shingles, cutting	14
3814	Wood, William A., and J. C. Loveland.	Grain-cradles	1
4691	Woodcock, Bancroft	Stoves, cooking	5
233	Woodcock, Bancroft	Plough, improvement in	1
4441	Woodcroft, Bennett	Propellers, spiral	7
3520	Woodward, Lewis	Washing-machines	17
3492	Woolley, John	Stoves, air-heating and cooking	5
3507	Woolley, John	Roofs of houses, &c., manner of making.	9
3424	Worthington, H. R	Propelling canal and other boats	7
3677	Worthington, H. R	Steam-engine, auxiliary, constructing and governing an, for the purpose of supplying a steam-boiler with water.	6
3835	Wright, Peter M	Presses, cotton	12
3517	Wyeth, Nathaniel J	Composition for making brick	4
3630	Yale, Linus	Locks, door	2
3610	Young, E. W., & T. H. Wilson.	Smut-machines	1
3430	Young, Jas., & Elmon Parker	Stoves, cooking	5

ALPHABETICAL LIST OF PERSONS WHOSE PATENTS FOR DESIGNS HAVE EXPIRED DURING THE YEAR 1858.

No.	Patentees.	Designs.
368	Abendroth, John	Stoves, cooking.
362	Ames, Winslow, assignor to Hartshorn & Ames	Grates, parlor.
429	Ames, W., assignor to J. Hartshorn & W. Ames	Stoves.
367	Arnold, Dutee	Stoves, cooking.
369	Ball, Thomas	Bust of Jenny Lind.
372	Batchelor, Nathaniel A	Clock frame.
401	Blanchard, Reuben, jr., assignor to Learned & Thatcher	Stoves.
402	Blanchard, Reuben, jr., assignor to Learned & Thatcher	Stoves.
403	Blanchard, Reuben, jr., assignor to Learned & Thatcher	Stoves.
370	Burleigh, M. C	Stove doors and panels.
392	Burnet, William	Water coolers.
415	Chapin, Nathan	Tables.
352	Chilson, Gardner	Furnace registers.
353	Chilson, Gardner	Furnace registers.
354	Chilson, Gardner	Furnace registers.
355	Chilson, Gardner	Furnace registers.
417	Cobb, Lyman	Stoves.
405	Cook, Aaron	Combs for ladies.
382	Cox, A., E. Johnson, and D. B. Cox	Stoves.
383	Cox, A., E. Johnson, and D. B. Cox	Stoves.
341	Davis, William C	Stoves, cook.
390	Davis, William C	Stoves.
419	Davy, John T	Fences, cast iron.
350	Delany, Edward J., assignor to Heins & Adamson	Umbrella stands.
393	Dewitt, James V	Stoves.
423	Fitzgerald, Frederick, assignor to Silas C. Herring and John Ryer.	Iron railing.
400	Flinchbaugh, H. K	Tomb, cast iron.
430	Freeman, Edmund L	Presses, mantle-pieces, &c., for frames for.
406	Fulton, Calvin	Stove plates.
345	Gibbs, Samuel W., assignor to North, Harrison & Co	Stoves.
346	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry	Stoves, cooking.
356	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry	Stoves.
357	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry	Stoves.
359	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry	Stoves.
3	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry	Stoves.
380	Gibbs, Samuel W., assignor to Jagger, Treadwell & Perry	Stoves.
394	Gibbs, Samuel W., assignor to North, Harrison & Chase	Stoves.
422	Gibbs, Samuel W., assignor to North, Harrison & Chase	Stoves.
342	Gilbert, Charles	Stoves.
428	Green, Jeremiah D., assignor to Backus, Bacon & Co	Stoves.
381	Hallman, W. G	Stoves.
378	Hapgood, Lyman S	Stove plates.
347	Harris, Conrad, and Paul W. Zoiner	Stoves.
375	Hathaway, William L	Stoves.
348	House, Samuel A	Stoves, cooking.
349	House, Samuel A	Stoves, parlor.
388	House, Samuel A	Stoves.
371	Hutchinson, James, assignor to D., A. E., and N. Powers	Floor oil-cloth.
411	Hutchinson, James, assignor to Deborah, Albert E., and N B. Powers.	Floor oil-cloth.
374	Hutton, P. M	Bedsteads.
407	Hutton, Pelatiah M	Bedsteads, cast iron
408	Jones, Anthony W., assignor to James McGregor, jr	Stoves.
344	Lamb, Joseph G	Stoves.
380	Lamb, Joseph G	Stoves.

Persons whose patents for designs have expired.

No.	Patentees.	Designs.
387	Lamb, Joseph G	Stoves.
360	Lewis, W. and W. H	Pedestals and columns.
410	Merchant, Silas	Stoves.
425	Muller, Charles	Hat stand.
397	Penniman, Elijah P	Stove plates.
398	Penniman, Elijah P	Stove plates.
414	Penniman, E. P., assignor to H. Ruttan	Stove or furnace for ventilating.
358	Perry, John S	Stoves.
361	Pratt, Joseph	Grates, parlor.
391	Pratt, Joseph	Stoves, parlor.
384	Rathbone, John F	Stoves.
389	Rathbone, John F	Stoves, cooking.
395	Rathbone, John F	Stoves, cooking.
396	Rathbone, John F	Stoves, plates of Franklin.
363	Richardson, N. P	Stoves, air-tight.
376	Richardson, N. P	Stoves.
399	Richmond, Apollos, assignor to A. C. Barstow & Co	Stoves, parlor, plates of.
424	Richmond, Apollos, assignor to A. C. Barstow & Co	Stove plates, parlor.
416	Ripley, Ezra	Stove fronts.
377	Ripley, Ezra, assignor to D. Stafford & Co	Stoves.
421	Ripley, Ezra, assignor to Chollar, Sage, & Dunham	Stove.
426	Ripley, Ezra, and N. S. Vedder, assignor to Low & Hicks	Stove, parlor.
351	Sailor, S. H., assignor to Warnick, Leibrandt, & Co	Stoves, cooking.
409	Sailor, Samuel H., assignor to North, Harrison, & Chase	Stoves.
379	Sanderson, William L., assignor to R. R. Finch	Stoves.
420	Savery, William	Stoves.
364	Schultz, Frederick	Stoves, air-tight.
343	Smith, Elihu	Stoves.
385	Stuart, David, and Jacob Beesley, assignors to William P. Cresson.	Stoves.
427	Stuart, David, and Jacob Beesley, assignors to William P. Cresson.	Stove registers.
404	Vedder, N. S, assignor to A. T. Dunham & Co	Stoves.
373	Wager, James, David Pratt, and Volney Richmond	Stoves.
413	Weeman, Ebenezer	Gates, metallic.
365	Williams, Seth, jr., assignor to Williams, Bird & Co	Stoves.
418	Woolson, Charles J	Stoves.
412	Zeuner, Charles, assignor to M. Greenwood & Co	Shovels, stands for.

CLASSIFIED LIST OF PATENTS FOR INVENTIONS AND DISCOVERIES THAT HAVE EXPIRED DURING THE YEAR 1858.

CLASS I.—AGRICULTURE, *including instruments and operations.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Bee-hives	Aaron E. James	Point Pleasant, Va	Jan. 6, 1844.
Bee-hives	S. and J. D. Cope	Damascusville, Ohio	Feb. 12, 1844.
Bee-hives	George R. West	Fairfield, Ohio	April 20, 1844.
Bee-hives	James A. Cutting	Haverhill, N. H	June 24, 1844.
Bee-hives	J. D. Fulkerson	Unity, Ohio	July 1, 1844.
Bee-hives	Oliver Reynolds	Webster, N. Y	Dec. 4, 1844.
Bee-palaces	Lemon Hamlin	Kirkersville, Ohio	July 13, 1844.
Churns	George W. Cook	St. Louis, Mo	Feb. 28, 1844.
Churns	Harmess Bentley	Ballston, N. Y	April 20, 1844.
Churns	J. B. Schermerhorn	New York, N. Y	June 5, 1844.
Churns	Thomas Ling	Portland, Me	Aug. 21, 1844.
Corn and cane-cutters	Jacob Peck	Oakland, Tenn	Aug. 28, 1844.
Corn-fodder, cutting and crushing	Rudolph Miller	York, Penn	Oct. 3, 1844.
Corn-shellers	William McAll	Talladega, Ala	April 13, 1844.
Cultivators	Robert Nelson	West Point, Ind	Jan. 15, 1844.
Cultivators	William Dyzert	Gettysburg, Penn	Aug. 16, 1844.
Cultivator-teeth	James Birdsell	Hamorton, Penn	Nov. 9, 1844.
Fruit-gatherers	Alexander McWilliams	Washington, D. C	Mar. 13, 1844.
Grain-cradles	William A. Wood and John C. Loveland	Hoosick Falls, N. Y	Nov. 13, 1844; antedated Nov. 9, 1844.
Grain, fanning-mill for cleaning	C. O. Guernsey	Russia, N. Y	Oct. 12, 1844.
Grain, separating, from straw	M. and C. B. Packard	Clarendon, N. Y	Nov. 18, 1844.
Grain-separators	J. V. A. Wemple and George Westinghouse	Mohawk, N. Y	July 13, 1484.
Harrows, sward cutting	Dennis Rue	Rowe, Mass	May 17, 1844.
Harvesting-machines	George Easterly	Heart Prairie, Wis	Oct. 22, 1844.
Hemp-cradles	Griffin Reynolds, jr	Washington, Ky	May 30, 1844.
Hulling and pearling rice	Jacob Groat	Troy, N. Y	July 11, 1844.
Hulling clover machines	A. B. Crawford	Wooster, Ohio	Dec. 31, 1844.
Plough	Bancroft Woodcock	Mount Pleasant, Penn	June 14, 1837.
Ploughs	John Thompson	Ripley, Ohio	April 17, 1844.

Ploughs	Aaron Smith	Bloomfield, Mich	May 6, 1844.
Ploughs	J. Mooers	Hazelton, Penn	July 1, 1844.
Ploughs	Anthony Taylor	New Garden, Ohio	Dec. 19, 1844.
Ploughs, adjusting	William K. Allen	Brownsboro', Ky	Jan. 31, 1844.
Ploughs, combined	Harvey Brown	Payson, Ill	Mar. 9, 1844.
Ploughs, double	Aaron Smith	Bloomfield, Mich	May 10, 1844.
Ploughs, for excavating ditches	James Herbert	Lagrange, Ind	April 13, 1844.
Ploughs, gathering weeds under the furrow slice of.	Dudley Hills	East Hartford, Conn	Oct. 7, 1844.
Ploughs, wheel	Israel Long	Bucyrus, Ohio	Mar. 9, 1844.
Potato-diggers	Archibald C. Ketchum	Schenectady, N. Y	Feb. 20, 1844.
Rake, horse	David Dewey	Poultney, Vt	Nov. 23, 1837.
Rakes, grain	Benoni F. Partridge	Onondaga, N. Y	Mar. 13, 1844.
Ratoon and cane cutters	Norbert Laure	Plaquemines, La	Sept. 17, 1844.
Reaping-machines	William J. Ketchum	Buffalo, N. Y	Nov. 18, 1844.
Seeding; corn-planters	Thomas H. Hoskings	Crawfordsville, Ind	Jan. 20, 1844.
Seeding; planting-machines	Dierck Brener	Petersburg, Tenn	April 4, 1844.
Seeding; seed-planters	Loca Pratt	Amherst, N. H	April 25, 1844.
Seeding; seed-planters	Richard J. Gatling	Murfreesborough, N. C	May 10, 1844.
Seeding; seed-planters	W. Kilburn and F. Haines	Lawrenceville, Penn Marietta, Penn	Dec. 31, 1844.
Seeding; sowing-machines	Ezra Fisk	Fayette, Maine	Nov. 18, 1844.
Smut-machines	Meredith Mollory	Mount Morris, N. Y	Jan. 20, 1844.
Smut-machines	Jacob W. Brower	Mount Airy, N. C.	Feb. 28, 1844.
Smut-machines	James M. Clarke	Strasburg, Penn.	Mar. 20, 1844.
Smut-machines	S. Scammon and R. Nason	Waterville, Me.	April 10, 1844.
Smut-machines	Elisha S. Snyder	Charlestown, Va.	April 30, 1844.
Smut-machines	Henry B. James	Mount Holly, N. J.	May 17, 1844.
Smut-machines	Abraham Straub	Milton, Penn.	May 17, 1844.
Smut-machines	Elisha W. Young and Thomas H. Wilson	Parkman, Ohio Harrisburg, Penn	June 5, 1844.
Smut-machines	James W. Webster	Luray, Va	June 5, 1844.
Smut-machines	John Pagin	Michigan City, Ind.	Aug. 14, 1844.
Smut-machines	Jacob Groat	Troy, N. Y.	Nov. 9, 1844.
Straw-cutters	William Hovey	Worcester, Mass.	Feb. 12, 1844.
Straw-cutters	Eliakim Taylor	Rochester, N. Y.	Oct. 12, 1844.
Straw-cutters	Ezra Taylor	Rochester, N. Y.	Nov. 6, 1844.
Threshing and cleaning grain	J. A. and H. A. Pitts	Winthrop, Me.	Dec. 29, 1837; antedated June 29, 1837.

Expired patents for inventions—CLASS I.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Threshing-machines	L. and E. Whitman, jr	Winthrop, Me.	Mar. 20, 1844.
Threshing-machines	Charles W. Cathcart	New Durham, Ind.	April 25, 1844.
Threshing-machines	Frederick A. Stuart	Catharine, N. Y.	June 5, 1844.
Wheat-fans	David Watkins	Port Republic, Va.	Feb. 2, 1844.
Wheat-fans	William Stanley	Jamestown, N. C	Nov. 18, 1844.
Winnowing-machines	Thomas Cole and John Littlefield	Allensville, Ind.	Aug. 7, 1844.
Winnowing-machines	Thomas Chandler and Asa D. Reed	Illinois Michigan	Dec. 7, 1844.

CLASS II.—METALLURGY, *and manufacture of metals and instruments therefor.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Anvils, machine for making	John Taylor	Shadegap, Penn	Jan. 31, 1844.
Bolt in door-fastenings, operating the	Albert Bingham	Boston, Mass	June 5, 1844.
Buckles	Julius W. Hatch	Manlius, N. Y.	Feb. 20, 1844.
Buckles	Isaac B. Verplank	Mentz, N. Y	Mar. 9, 1844.
Buckles	Henry Laurence	Manlius, N. Y.	July 13, 1844.
Currycombs	Thomas Wilkinson	Cambridge, N. Y.	Aug. 16, 1844.
Cutlery, cleaning and polishing	William Vine	New York, N. Y	Feb. 28, 1844.
Drill or borer, governing the feed of	John R. Grout	Birmingham, Mich.	April 25, 1844.
Drilling-machines	Amos Morgan	Wooster, Ohio	May 30, 1844.
Forges, blacksmith's	Frederick A. Stuart	Catharine, N. Y.	July 1, 1844.
Furnace, reverberatory, for smelting or puddling iron.	S. Broadmeadow, assignor to William Green.	Woodbridge, N. J.	Jan. 20, 1844.
Furnaces for smelting iron	Leman Bradley	Sharon, Conn.	Nov. 18, 1844.
Hinges, butt-blank, machinery for trimming	Cyrus Kenney	Troy, N. Y.	July 26, 1844.
Hinges, butt, moulds for	Benjamin F. Harley and John D. Morris	Philadelphia, Penn.	Feb. 12, 1844.
Hinges, butt, of wrought iron, bending the knuckles.	Cyrus Kenney	Troy, N. Y.	Aug. 23, 1844.

Hinges, butt, of wrought iron, machinery for making.	Cyrus Kenney	Troy, N. Y.	Aug. 7, 1844.
Hinges, butt, planing and dressing the knuckles on their inner sides.	Gage Stickney	Blackwoodtown, N. J.	Dec. 19, 1844.
Hinges, flask for moulding	Thomas Loring	Gloucester, N. J.	Feb. 7, 1844.
Iron and copper, coating with tin and other metals.	Edmund P. Morewood	New York, N. Y.	Sept. 17, 1844.
Iron or other ores, process of reducing to the metallic state, by coating them with certain fluxes.	Jonas Tower	Madison, Ohio	Dec. 7, 1844.
Iron and steel, process of manufacturing, &c.	Thomas Southall and Charles Crudginton	Kidderminster, Eng	Sept. 14, 1844; antedated Feb. 1844.
Iron, wrought, mode of obtaining directly from the ore.	Simeon Broadmeadow	New York, N. Y.	May 30, 1844.
Labels for mail-bags	Oren S. North	New Britain, Conn.	Mar. 13, 1844.
Latch, mortise, for doors	William Wilson	Northampton, Mass	Nov. 26, 1844.
Laths, metallic, for fire-proof ceilings of houses.	Palmer Sumner	New York, N. Y	April 25, 1844.
Lock, combination	Sabin Colton	Philadelphia, Penn.	Jan. 6, 1844.
Lock, combination, door	M. R. Stephenson and Oliver Edwards	Boston, Mass	April 17, 1844.
Lock, combination, for doors, safes, &c.	Robert Newell	New York, N. Y.	Sept. 17, 1844.
Lock, permutation, for vaults, safes, &c.	Darius W. Maples	Geneva, N. Y.	Dec. 4, 1844.
Locks for banks, safes, &c.	M. R. Stephenson and Oliver Edwards	Boston, Mass	July 9, 1844.
Locks for banks, safes, vaults, &c.	M. R. Stephenson and Oliver Edwards	Boston, Mass	April 17, 1844.
Locks, door	Linus Yale	Springfield, Mass	June 13, 1844.
Metal, method of making patterns for casting hollow ware and other articles of.	Ezra Ripley	Troy, N. Y	Aug. 31, 1844.
Nail-cutting machines, feeder for	Caleb Jobister	Alleghany, Penn	Dec. 31, 1844.
Pins, arranging and sticking in papers	De Grasse Fowler	North Bradford, Conn	Sept. 20, 1844.
Pipes, lead, machinery for the manufacture of.	Charles and George E. Sellers	Cincinnati, Ohio.	Mar. 9, 1844.
Plates, door	J. H. Grout and F. M. Ray	New York, N. Y	Mar. 20, 1844.
Plates, door and signs of separate types, &c., method of making.	Edmund Morris	Philadelphia, Penn.	April 25, 1844.
Rolling irregular figures to a pattern, machine for.	William Field	Pawtucket, R. I.	Aug. 7, 1844.
Spike-machine	Samuel G. Reynolds	Bristol, R. I.	July 26, 1844.
Steel and iron, manufacture of	Charles Low	England	May 28, 1846; antedated May 25, 1844.
Steel, manufacture of	Simeon Broadmeadow	New York, N. Y.	May 25, 1844.
Vessels of soft metal, method of making	John Rand	Citizen of U. S.	Aug. 7, 1844.

CLASS III.—MANUFACTURES OF FIBROUS AND TEXTILE SUBSTANCES, *including machines for preparing fibres of wool, cotton, silk, fur, paper, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Braid, Tuscan, &c., weaving	Elisha Fitzgerald	New York, N. Y	Nov. 13, 1844; antedated October 16, 1844.
Bonnet tips, apparatus for pressing	Thomas Kendall	New York, N. Y	Sept. 3, 1844.
Bonnets and hats, machine for pressing	Caleb Merritt	Baltimore, Md	Mar. 13, 1844.
Bonnets, portable	Thomas Hammond	New York, N. Y	Oct. 30, 1844.
Carding fibrous substances, self-stripping card for.	H. Barbour and J. Gleason	Lowell, Mass	Dec. 4, 1844.
Cloth, brushing and winding	Reuben C. Varnel	West Somers, N. Y	Mar. 13, 1844.
Cotton, wool, &c., burring and cleaning	Silas G. Mumford	North Providence, R. I	Mar. 28, 1844.
Gin, cotton, roller, &c	Richard Reynolds, jr	Beaufort, S. C	Feb. 2, 1844.
Ginning cotton, saw-gin for	Eleazer Carver	Bridgewater, Mass	April 4, 1844.
Ginning cotton, saw-gin for	John H. Sherard	Livingston, Ala	April 30, 1844.
Hats, manufacture of	John Maguire	Washington, D. C	Dec. 7, 1844.
Hemp breaker and cleaner	Constant B. Butler	Petersburg, Tenn	Jan. 6, 1844.
Hemp and flax break	Aaron F. Bruce	Marshall, Mo	June 24, 1844.
Hemp, &c., heckling and spinning	William Montgomery	Boston, Mass	Feb. 28, 1844.
Lace, power loom for weaving	Erastus B. Bigelow	West Boylston, Mass	April 20, 1837.
Loom, figure power	William Coompton	Taunton, Mass	Nov. 25, 1837.
Loom, fish nets	J. and William Carr and J. Shannon	Sunbury, Penn	Sept. 4, 1844.
Loom for regulating the delivery of the warp from the warp beam.	William H. Brayton	Warren, R. I	Jan. 6, 1844.
Loom, knitting	Richard Walker and Jefferson McIntire	Portsmouth, N. H	Feb. 12, 1844.
Loom, rotary temples for	Isaac C. Lane	Waltham, Mass	Mar. 26, 1844.
Looms for weaving piled fabrics without the figuring wires.	Seivier Robert W	Middlesex county, England	June 1, 1852; antedated September 5, 1844.
Looms, power	James Nield	Taunton, Mass	May 25, 1844.
Paper, sand, glass, or emery, making	Edmund Morris	Philadelphia, Penn	Sept. 14, 1844.
Ropes, machinery for laying and winding the same into coils.	S. and J. A. Bazin	Canton, Mass	Feb. 28, 1844.
Rotary press for woollen goods	Moses Bayley	Salisbury, Mass	July 5, 1837.

Roving in cans, mode of laying	J. Tatham and D. Cheetham	Rochdale, England	Nov. 18, 1845; antedated March 14, 1844.
Silk reels	James S. Harris	Poultney, Vt	July 30, 1844.
Spinning bobbins, method of operating the, in machinery, for spinning fibrous substances.	Francis McCully, jr	Patterson, N. J	Oct. 30, 1844.
Spinning, flier and dead spindle for	Phineas Stevens	Nashua, N. H	April 20, 1844.
Spinning, hook, spinner, and twister whirling, and rotary ring.	John Thorp	North Wrentham, Mass	Sept. 27, 1844.
Spinning woollen roving	Edgar M. Titcomb	Andover, Mass	July 29, 1837.
Wool, combing	Ezra Gould	Patterson, N. J	Oct. 9, 1844.

CLASS IV.—CHEMICAL PROCESSES, MANUFACTURE, AND COMPOUNDS, *including medicines, dyeing, color-making, distilling, soap and candle making, mortars, cements, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Cements, making	William H. Smith	Georgetown, D. C	June 10, 1844.
Coloring and hardening wood	Charles F. Spicker	New York, N. Y	June 24, 1844.
Composition for aqueduct pipes	Gideon Myers	Bridgewater, N. Y	Mar. 28, 1844.
Composition for dyeing the hair	Auguste Grandjean	New York, N. Y	Feb. 28, 1844.
Composition for glazing	Thomas and Ephraim Parker	Orangeville, Pa	Feb. 20, 1844.
Composition for making brick	Nathaniel J. Wyeth	Cambridge, Mass	Mar. 28, 1844.
Composition for leather, water-proof	William J. Roome	New York, N. Y	Jan. 6, 1844.
Compounds, disinfecting	Jean LeDoyen	Paris, France	Dec. 24, 1847; antedated Oct. 8, 1844.
Dyeing yarn, machinery for	William A. Burke, assignor to "Amoskeag Manufacturing Company."	Manchester, N. H	May 30, 1844.
Friction matches	Elisha Smith	Erving, Mass	Oct. 3, 1844.
Lamp-black, making	John G. Mini	Philadelphia, Pa	Nov. 13, 1844.
Lard, preparing	H. A. Amelung	Alton, Ill	Nov. 13, 1844.
Lard, rendering	Ebenezer Wilson	Cincinnati, Ohio	Oct. 9, 1844.
Mash tubs	Benjamin Roop	Pekin, Ohio	May 6, 1844.
Ointment, mercurial, machines for making	James W. W. Gordon	Baltimore, Md	June 5, 1844.
Ointment for piles	William W. Riley	Mansfield, Ohio	Jan. 31, 1844.

Expired patents for inventions—CLASS IV.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Paints, fire and water-proof	Joseph Weisman	Philadelphia, Pa	Jan. 31, 1844.
Saleratus, making	Edward Chamberlain	Boston, Mass	Sept. 7, 1844.
Salt, making	Isaac Noyes	Kanawha Salines, Va	April 25, 1844.
Sealing-wax, igniting	Joseph Fatman	Philadelphia, Pa	April 17, 1844.
Sugar-boilers	Abraham Hager	Donaldsonville, La	Mar. 9, 1844.
Sugar candy	H. and G. Garrison	Newburgh, N. Y	April 10, 1844.
Sugar, cleaning	Joseph Hurd	Stoneham, Mass	Oct. 3, 1844.
Tallow, &c., cutting	Zabina Ellis	Kensington, Pa	Oct. 12, 1844.
Tobacco, renovating	Enoch Huse	Newburyport, Mass	July 22, 1844.

CLASS V.—CALORIFICS, *comprising lamps, fire-places, stoves, grates, furnaces for heating buildings, cooking-apparatus, preparation of fuel, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Chimneys, building	Joseph Gilbert	Stark county, Ohio	Nov. 13, 1844.
Chimneys, caps for regulating the draught of	Joseph Hurd	Stoneham, Mass	Dec. 12, 1844.
Coal, breaking	Joseph Battin	Philadelphia, Penn	Feb. 12, 1844.
Fire, apparatus for extinguishing	William H. Phillips	Langton Place, England	April 9, 1850; antedated Dec. 4, 1844.
Fire-fenders	Morgan Morgan, jr	New York, N. Y	July 22, 1844.
Fire-places	Daniel Hemingway	Leesbury, Ky	Nov. 9, 1844.
Furnace grate bars	John Kymer	Caermarthen, South Wales	July 19, 1844.
Furnaces, air-heating	Jeptha Bradley	St. Albans, Vt	June 24, 1844.
Furnaces, portable	George E. Waring	Stanford, Conn	Mar. 16, 1844.
Furnaces for heating buildings	George Walker	New Haven, Conn	June 10, 1844.
Lamp-caps	Francis Draper	East Cambridge, Mass	Mar. 20, 1844.

Lamp-caps	R. H. Eddy, assignor to D. Jarvis and New England Glass Company.	Boston, Mass	May 10, 1844.
Lamps, lard	John Tobin	Bloomfield, N. J	Mar. 26, 1844.
Lamp-wicks, raising	Samuel Rust	New York, N. Y	Mar. 9, 1844; antedated Jan. 29.
Lamps	Henry B. Fernald	Boston, Mass	May 17, 1844.
Lamps, construction of	Christopher West	Baltimore, Md	Oct. 7, 1844.
Lamps, making glass	P. F. Slane and John Golding	East Cambridge, Mass	Jan. 23, 1845; antedated July 23, 1844.
Lamps, light-house	Winslow Lewis, sr., and Benjamin Hemmenway	Boston, Mass Roxbury, Mass	Aug. 7, 1844.
Lamps, self-supplying	Edwin B. Horn	Boston, Mass	Sept. 11, 1844.
Lamps, volatile ingredients for burning	Isaiah Jennings	New York, N. Y	Oct. 12, 1844.
Oil feeders	Joseph Benson	Boston, Mass	Feb. 28, 1844.
Ovens, bake	Grouvelle, P. L. N., and E. Mouchot, assignor to B. Rodriguez	Paris, France New Orleans, La	March 20, 1847; antedated April 27, 1844.
Ranges, cooking	Herbert H. Stimson	Boston, Mass	May 17, 1844.
Ranges, kitchen	Ambrose W. Thompson	Philadelphia, Pa.	March 20, 1844.
Ranges, kitchen	Julius Fink	Philadelphia, Pa.	April 10, 1844.
Reflectors, metallic	Alonzo Farrar	Boston, Mass	April 4, 1844.
Stoves	James White	Milton, Pa.	June 10, 1842.
Stoves	Loammi Bailey	Boston, Mass	March 26, 1844.
Stoves	John Smart	Philadelphia, Pa	March 28, 1844.
Stoves, air-heating and cooking	John Woolley	Springfield, Mass	March 16, 1844.
Stoves, air-tight	John Cline	Norwalk, Ohio	Jan. 6, 1844.
Stoves, air-tight, self-regulating	Saxton and Elliot, assignors to Harned and Elliott.	Philadelphia, Pa	Oct. 30, 1844.
Stoves, apparatus for regulating (the heat of)	Samuel D. Tillman	Seneca Falls, N. Y	April 17, 1844.
Stoves, cooking	John T. Davy	Troy, N. Y	Feb. 12, 1845; antedated Aug. 12, 1844.
Stoves, cooking	James Young and E. Parker	Philadelphia, Pa	Feb. 12, 1844.
Stoves, cooking	Simon Pettes	Schenectady, N. Y	Feb. 12, 1844.
Stoves, cooking	S. S. Jones	Philadelphia, Pa	Feb. 20, 1844.
Stoves, cooking	Ashley Hotchkin	New York	Feb. 20, 1844.
Stoves, cooking	Samuel Pentz	Boonsboro', Md	March 9, 1844.
Stoves, cooking	Roswell Bush	Rochester, N. Y	April 4, 1844.
Stoves, cooking	Abner Leland	Milton, Pa	April 4, 1844.
Stoves, cooking	Frederick Kesselmeier	Wooster, Ohio	April 13, 1844.
Stoves, cooking	Peter Mills	Binghampton, N. Y	April 30, 1844.

Expired patents for inventions—CLASS V.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Stoves, cooking	Isaac Straub	Cincinnati, Ohio	June 5, 1844.
Stoves, cooking	Thomas Bent, assignor to W. & R. P. Resor.	Cincinnati, Ohio	June 5, 1844.
Stoves, cooking	Calvin Fulton	Rochester, N. Y.	June 10, 1844.
Stoves, cooking	John C. Hermance	Schenectady, N. Y	June 13, 1844; antedated June 7, 1844.
Stoves, cooking	Henry W. Camp	Oswego, N. Y	June 24, 1844.
Stoves, cooking	James Wager	Troy, N. Y	July 9, 1844.
Stoves, cooking	James Lewis	Amsterdam, N. Y	Sept. 20, 1844.
Stoves, cooking	John W. Riggs	Fort Plain, N. Y	Oct. 30, 1844.
Stoves, cooking	James H. Lyon	Schenectady, N. Y	Nov. 18, 1844.
Stoves, cooking	Adam Ketler	Philadelphia, Pa	Dec. 7, 1844.
Stoves, cooking	Archibald Wieting	Middletown, Pa	Dec. 16, 1844.
Stoves, cooking	William L. Patter	Clifton Park, N. Y	Dec. 19, 1844.
Stoves, railway	J. B. Chollar and H. Parmlee, assignors to Chollar, Jones, and Low.	West Troy, N. Y	July 11, 1844.
Warming buildings, apparatus for	Benjamin Blaney	Boston, Mass	Sept. 7, 1844.

CLASS VI.—STEAM AND GAS ENGINES, *including boilers and furnaces therefor, and parts thereof.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Boilers, steam, &c., heater of	Zenas C. Robbins	St. Louis, Mo	Oct. 16, 1844.
Boilers, steam, &c., regulating the supply of water to.	John Cochrane	Newark, N. J	July 13, 1844.
Boilers, steam engine, regulating the supply of water to.	Daniel Barnum	Bridgeport, Conn	July 24, 1844.
Boiler, steam, removing incrustations of	Louis Antoine Ritterbandt	Poland	Sept. 11, 1845; antedated Dec. 2, 1844.

Furnaces of steam boilers	Leman Bradley	Sharon, Conn	Dec. 12, 1844.
Gas or vapor, engine to be operated by the explosive mixtures of inflammable.	Stuart Perry	Newport, N. Y	May 25, 1844.
Steam-engine, auxiliary, constructing and governing an, for the purpose of supplying a steam-boiler with water.	Henry R. Worthington	New York, N. Y	July 24, 1844.
Steam-engines, opening and closing the valves of.	Frederick E. Sickles	New York, N. Y	Oct. 19, 1844.
Steam-engine and other boilers, supplying air to consume the combustible gases, &c., that escape from the furnaces of.	Peter Robinson	Waterloo, N. Y	April 20, 1844.
Steam-engine, rotary	Abram Pease	Lyons, N. Y	Feb. 12, 1844.
Steam-engine, rotary, exhausting the case of a	Edward Locke	Newport, England	Sept. 11, 1844.
Steam-engine, vibrating	Ebenezer A. Lester	Boston, Mass	Feb. 7, 1844.
Steam-engines, condenser and boilers of	Benjamin Crawford	Alleghany City, Penn	Sept. 7, 1844.
Steam-engines, conical balance valves of	Thomas McDonough	Middletown, Conn	Feb. 12, 1844.
Steam-engines, locomotive	Edwin F. Johnson	Middletown, Conn	Dec. 31, 1844.
Steam-generators	Gabriel H. Moreau	France	Jan. 26, 1844.
Steam-valves, conical seat	Sprague Barber	New York, N. Y	April 20, 1844.
Steam-valves, method of connecting the action of the cut-off and.	Barnabas H. Bartol	Coldspring, N. Y	Sept. 20, 1844; antedated Mar. 20, 1844.

Class VII.—Navigation and maritime implements, *comprising all vessels for conveyance on water, their construction, rigging, and propulsion, diving-dresses, life-preservers, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Harpoon	Albert Moor	Hampden, Me	Mar. 16, 1844.
Ice-breaker for boats and other vessels	Samuel Nicholson	Boston, Mass	July 16, 1844.
Life-preserver	Adoniram Chandler	New York, N. Y	Oct. 3, 1844.
Paddle wheels, horizontal	P. Lear and E. Buck. Buck assignor to Lear.	Boston, Mass	Feb. 20, 1844.
Propeller, rotary inclined, for vessels	Richard F. Loper	Philadelphia, Penn	Feb. 28, 1844.
Propellers, spiral	Bennet Woodcroft	Manchester, England	April 4, 1846; antedated Feb. 13, 1844.

Expired patents for inventions—Class VII.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Propellers, submerged	Peter Von Schmidt	Washington, D. C	May 30, 1844.
Propellers, submerged, coupling the shafts of, for steamboats and other vessels.	Richard F. Loper	Philadelphia, Penn	Oct. 9, 1844.
Propelling boats and other vessels, oblique paddle propeller for.	Ralph Bulkley	New York, N. Y	Mar. 13, 1844.
Propelling canal and other boats	Henry R. Worthington	New York, N. Y.	Feb. 2, 1844.
Propelling ships	John Ericsson	New York, N. Y	Dec. 31, 1844.
Propelling steam and other vessels	Gabriel H. Moreau	France	Jan. 26, 1844.
Ships and other vessels, strengthening the sails of.	Archibald Trail	Great Britain	Sept. 24, 1844; antedated Feb. 24, 1844.
Ships, cellars, &c., mode of caulking the seams of.	William Bennet	New York, N. Y	April 20, 1844.
Square-rigged vessels, forming and rigging the sails of.	Warren C. Choate	Washington, D. C	April 17, 1844.

Class VIII.—Mathematical, philosophical, and optical instruments, *including clocks, chronometers, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Barometers	Fontaine Moreau, P. A., de	London, England	Aug. 20, 1846; antedated April 27, 1844.
Chronometer escapements	Oramel W. Waste	Pittsford, N. Y	Sept. 24, 1844.
Clock-pendulums	Frederick Kesselmeicr	Wooster, Ohio	April 10, 1844.
Interest, machine for calculating	Jehu Hatfield	Glenn's Falls, N. Y	May 6, 1844.
Rules or measures for boards, leather, &c	Charles Ross	Piqua, Ohio	May 17, 1844.

CLASS IX.—CIVIL ENGINEERING AND ARCHITECTURE, *comprising works on rail and common roads, bridges, canals, wharves, docks, rivers, weirs, dams, and other internal improvements, buildings, roofs, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Dock, floating dry, basin to be used in connexion with.	R. Moody and S. D. Dakin	New York, N. Y.	Sept. 17, 1844.
Doors, sliding	William T. Forsyth	Philadelphia, Penn	Feb. 12, 1844.
Excavating, cutting trenches, and laying pipes	Ezra Cornell	Ithaca, N. Y	Feb. 28, 1844.
Excavating; ditching-machines	Edwin Owen	Laporte, Indiana	Sept. 21; antedated Mar. 24, 1844.
Excavating; excavator or drag for removing mud, &c., in beds of rivers.	Dennis Vermillion	Washington, D. C	Nov. 9, 1844.
Excavating; excavator, scoop or dredging-machine.	Joseph Smith	Mansfield, Ohio	Aug. 24, 1844.
Excavating; scrapers for repairing and making roads, &c.	Samuel G. Sutton	Yorkshire, N. Y	May 30, 1844.
Railroads, connecting cast-iron rail for	James M. Bay	Harrisburg, Penn	April 13, 1844.
Railroads, key for fastening the rails of, to their chairs.	Benjamin Butterfield	Kensington, Penn	Aug. 21, 1844.
Railroads, safety switch for	Gustavus A. Nicolls	Reading, Penn	Dec. 19, 1844.
Railroad truck-frames	Charles Davenport, assignor to Davenport and Bridges.	Cambridgeport, Mass	Aug. 10, 1844.
Roofs of houses, &c., manner of making	John Woolley	Springfield, Mass	Mar. 26; antedated March 16, 1844.
Roofs of houses, &c	Peter Naylor	New York, N. Y	April 25, 1844.
Streets, machine for sweeping	Alexander M. Wilson	Rossville, N. Y	Oct. 16, 1844.
Telegraphs, signal	Henry J. Rogers	Baltimore, Md	Sept. 27, 1844.

CLASS X.—LAND CONVEYANCE, *comprising carriages, cars, and other vehicles used on roads, and parts thereof.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Boxes, anti-friction, for axles, &c.	William Rowan, assignor to Thomas Murray Megget	Belfast, Ireland New Orleans, La	Oct. 9, 1855; antedated November 7, 1844.
Cars, railroad, and carriages, supporting the bodies of.	Richard Imlay	Philadelphia, Penn	Sept. 21, 1837.
Cars, railroad, for turning curves	John H. Quail	Philadelphia, Penn	Feb. 28, 1844.
Cars, railroad, locomotives, &c., coupling-bars for.	William D. Chesnut	Wilmington, Del	Feb. 20, 1844.
Cars, railroad, to prevent accidents from what are called "snake-heads."	Elisha Tolles	New York, N. Y	Feb. 20, 1844.
Carriage bodies, connecting with perch by means of springs.	George Nichols	Trumbull, Conn	April 10, 1844.
Carriage bodies, hanging	John Reynolds	Newberry, Penn	July 9, 1844.
Carriages, detaching horses from	John Madden	Warren, Ohio	July 9, 1844.
Carriages, disengaging horses from	James S. Shnell	Shiremanstown, Penn	April 13, 1844.
Carriages, spring-brace for	Erastus T. Sprout	Dimock, Penn	Sept. 7, 1844.
Carriages, wagons, &c., couplings for	George W. Hatch	Parkman, Ohio	June 13, 1844.
Carriages, wrought-iron wheels for	James McCollum	Wilsonville, Ala	May 10, 1744.
Railroads, atmospheric	James Pilbrow	Tottenham, England	July 26, 1845; antedated May 17, 1844.
Wheels, cast-iron railroad car, making	Ebenezer A. Lester	Boston, Mass	Mar. 9, 1844.
Wheels, carriage	Gershom L. Ackerman	Troy, N. Y	April 16, 1845; antedated October 16, 1844.
Wheel-hubs, lining metallic boxes for	Moses Palmer	Baltimore, Md	Mar. 9, 1844.

CLASS XI.—HYDRAULICS AND PNEUMATICS, *including water-wheels, wind-mills, and other implements operated on by air or water, or employed in the raising and delivery of fluids.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Engines, fire	Gardiner Barton, jr	Waterford, New York	Aug 16, 1844.
Hydro-pneumatic apparatus for raising beer, &c., from casks.	Richard Sealy	New York, N. Y	Aug. 31, 1844.
Pipes, supply, construction of, for aqueducts	John H. Thorndike	Boston, Massachusetts	July 1, 1844.
Pumps	T. Jefferson Wolfe	Baltimore, Maryland	April 10, 1844.
Water and animal power	John A. Wiszt	Philadelphia, Pennsylvania	May 10, 1844.
Water wheels	Hiram Ferguson	Richland, New York	Mar. 20, 1844.
Water-wheels	Nelson Johnson	Rathboneville, New York	Mar. 26, 1844.
Water-wheels	Albert Stimpson	Rockingham, Vermont	April 25, 1844.
Water-wheels	Daniel Weaver	McKeansburg, Pennsylvania	June 10, 1844.
Water-wheels	David Putney	Redbank, Pennsylvania	Aug. 12, 1844.
Water-wheels	Roswell Cook	Elkland, Pennsylvania	Sept. 4, 1844.
Water wheels	J. D. Robinson	Peoria, Illinois	Oct. 24, 1844.
Water-wheels	Samuel L Valentine	Bangor, Maine	Dec. 12, 1844.
Water-wheels	Theodore R. Timby	Cato 4 corner, New York	Sept. 27, 1844.
Water wheels, combined	E. G. Covel	Glenn's Falls, New York	Feb. 20, 1844.
Water-wheels, current	John Carnegy	Tully, Missouri	April 10, 1844.
Wind-wheels, horizontal	Daniel Dennett	Centreville, Louisiana	Nov. 13, 1844.

CLASS XII.—LEVER, SCREW, AND OTHER MECHANICAL POWER, *as applied to pressing, weighing, raising, and moving weights.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Balances	George R. Moore	Brattleboro', Vermont	Jan. 6, 1844.
Balances, spring	J. H. and R. H. Bull	New York, N. Y	Sept. 20, 1844.
Presses	Amos Jackson	Liberty, Illinois	June 24, 1844.
Presses, cheese. self-acting	John Martin, jr	Aztalan, Wisconsin	Nov 26, 1844.
Presses, cotton	Seth Lamb	New York, N. Y	Mar. 16, 1844.
Presses, cotton	Perry G. Gardiner	New York, N. Y	Mar. 20, 1844.
Presses, cotton	William Sewell, jr	Macon, Georgia	June 15, 1844.
Presses, cotton	George Peck	Fairfield, Connecticut	March 9, 1844.
Presses, cotton	William F. Provost	Barnwell District, South Carolina	Sept. 14, 1844.
Presses, cotton	Jedediah Prescott	Memphis, Tennessee	Nov. 9, 1844.
Presses, cotton	Peter M. Wright	New York, N. Y	Nov. 26, 1844.
Pressing and raising weights, machines for	Smith Cram	New York, N Y	March 9, 1844.
Pressing, lever power for	Robert Sanderson	Athens, Ohio	Feb. 20, 1844.
Pressing, machines for preparing tobacco for	David Smith	South Hill, Virginia	Jan. 15, 1844.
Rotary press for woollen goods	Moses Bayley	Salisbury, Massachusetts	July 5, 1837.

CLASS XIII.—GRINDING-MILLS AND MILL-GEARING, *including grain-mills, mechanical movements, and horse-power.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Bark-mill for grinding tanners' bark	Mather Beecher	Remsen, N. Y	Sept 27, 1844.
Bolter, for bolting flour	Ryburn Buchanan	Sullivan county, Tenn.	July 24, 1844.
Grinding corn and cobs, mill for	Samuel L. Herr	Mexico, Penn	April 4, 1844.
Grinding grain, cylindrical mill for	Jacob Groat	Troy, N. Y	July 11, 1844.
Grinding grain, mill for	E. B. Nichols and D. Marsh	Fairfield, Conn	Mar. 13, 1844.
Grinding grain, portable mills for	Erastus Arnold	Otego, N Y	Mar. 9, 1844.
Grinding-mills	George T. Walters	Nicholasville, Kentucky	Feb. 12, 1844.
Grist-mills	John Ansell and J. Gallery	Brooklyn, N. Y	Aug. 21, 1844.

Horse-power for driving machinery	A. D. Childs	Rochester, N. Y	May 6, 1844.
Horse-power for driving machinery	Samuel B. Haines	Greensburg, Penn	Dec. 31, 1844.
Journals, preventing from heating	Elisha Reid	Columbus, Ga	May 25, 1844.
Machinery, governor for regulating the movements of mill-wheels, steam-engine, and other	Henry Burt	Boston, Mass	Aug. 31, 1844.
Mill-bush	John Heck	Boonsboro', Md	Mar. 26, 1844.
Mill-bush	Robert M. Wade	Summit Point, Va	May 25, 1844.
Wheels, tide	John G. Ross	New York, N. Y	Nov. 9, 1844.

CLASS XIV.—LUMBER, *including machines and tools for preparing and manufacturing, such as sawing, planing, mortising, shingles and staves, carpenters' and coopers' implements.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Barrels, machinery for making	Horace Baker	McLean, N. Y	July 30, 1844.
Boring-machines, method of securing, to the article to be bored.	Peter Baylor	Salem, Ohio	July 1, 1844.
Boring timber, machine for	Thomas J. Russell	Franklin Square, Ohio	Oct. 3, 1844.
Boxes, machinery for preparing wood for making	John H. Stevens	New York, N. Y	Dec. 19, 1844.
Hoops, splitting	William Rose	Philadelphia, Penn	Sept. 3, 1844.
Lathe for turning boats' oars	B. and A. F. Potter	Hubbardston, Mass	Jan. 20, 1844.
Laths and clapboads, sawing	Eliphalet C. Gilman	Canaan, Conn	Aug. 23, 1844.
Logs, setting saw	Waterman B. Palmer	Brookfield, N. Y	July 24, 1844.
Match splints, cutting	Henry Law	Wilmington, N. C	Aug. 28, 1844.
Planes, bench, setting the bitt in	Levi Sanford	East Solon, N. Y	Nov. 26, 1844.
Saws, circular, for cutting off piles under water.	Erastus E. Cole	Boston, Mass	Sept. 14, 1844.
Saws, circular, for sawing lumber, &c., manner of applying	John K. Mayo	Orrington, Maine	Mar. 20, 1844.
Saws, machine for filing	Calvin B. Rogers	Saybrook, Conn	Dec. 7, 1844.
Saws of saw-mills without a gate, straining the	Calvin Stigleman and A. Seely	Alton, Ill	Dec. 16, 1844.
Saw-mill, setting logs on the carriage of a	John B. Squier	Liberty Township, Ohio	Oct. 9, 1844.

Expired patents for inventions.—CLASS XIV.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Saw-mills, tail-blocks of	John Miller	Williamsport, Ohio	Jan. 20, 1844.
Saw-mills, tail and head blocks of	Thomas C. Theaker	Bucyrus, Ohio	Jan. 20, 1844.
Saw-mills, tail and head blocks of, self-setting	J. J. Parker	Plymouth, Ohio	June 13, 1844.
Saw-mills, setting logs on the carriage of	F. M. Stetson and John Eaton	Sangerfield, N. Y Brookfield, N. Y	July 15, 1844.
Saw-mills, setting saw logs and opening and shutting gates of.	Nathaniel P. Stearns	Linklaen, N. Y	Oct. 30, 1844.
Saw-mill carriages, self-setting apparatus for setting logs on.	Benjamin Webb	Warren, N. Y.	May 6, 1844.
Saw-mill carriages, for steadying logs thereon.	Henry Stanton	Richfield, N. Y	July 16, 1844.
Scythe-handles, &c., machinery for making	James Embree	Marshallton, Penn	Aug. 7, 1844.
Shingle-cutter	Jonathan P. Bartley	Flanders, N. Y	May 25, 1844.
Shingles, cutting	William Wood	Westport, Conn	Mar. 20, 1844.
Shingles, cutting, machine for	Tillot Cole	Kent, N. Y	Nov. 26, 1844.
Shingles, sawing	Israel G. Johnson	Augusta, Me	Aug. 12, 1844.
Shingles, shaving	Simeon Wood	Worcester, Mass	Jan. 15, 1844.
Tenoning and mortising machines	Eldridge Lyman	Northfield, Mass	May 25, 1844.
Tonguing and grooving machines	Charles W. Brown	Boston, Mass	Aug. 14, 1844.
Turning irregular forms, machinery for	Edwin Tucker	Bucyrus, Ohio	Oct. 24, 1844.
Turning spools	Jonathan H. Cary	North New Salem, Mass	Aug. 21, 1844.
Turning wood tapering	Wyllys Avery	Salisbury, N. Y	June 5, 1844.
Vice, standing or bench	Lauren M. Peck	Philadelphia, Penn.	July 18, 1844.
Wood, shaving	William Rose	Philadelphia, Penn.	Sept. 3, 1844.

CLASS XV.—STONE AND CLAY MANUFACTURES, *including machines for pottery, glass-making, brick-making, dressing and preparing stone, cements, and other building materials.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Brick-moulding machines	John Booth and William H. Stevenson	Columbus, Miss	Jan. 6, 1844.
Brick-presses	Mark Twitchell	Gray, Me	June 10, 1844.
Brick-presses	Jeffery Smedley	Columbia, Penn	Aug. 28, 1844.
Brick-presses	C. B. Baker and E. Gifford	Troy, N. Y	Sept. 7, 1844.
Brick-presses	Nathan Sawyer	Baltimore, Md	Sept. 27, 1844.
Brick-presses	Benjamin H Brown	Philadelphia, Penn	Oct. 3, 1844.
Bricks, moulding	Wm. S. Peters, executor of Ithiel Town	New Haven, Conn	Sept. 27, 1844.
Moulding and pressing bricks	Nathaniel Adams	Cornwall, N. Y	Sept. 8, 1837.
Mill-stones, dressing	John Black	Helena, Ark	Aug. 10, 1844.
Stone-cutters	Jacob Jenks	Roscoe, Ill	June 24, 1844.
Stone, dressing	Hammond Ward	Charlton, Mass	April 10, 1844.
Stone, sawing and dressing	D. Pfister, assignor to John Keller	Manedorf, Switzerland	April 10, 1845; antedated Dec. 3, 1844.

CLASS XVI.—LEATHER, *including tanning and dressing, manufacture of boots, shoes, saddlery, harness, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Boot-crimps	Pelatiah Stevens, jr	Canton, Mass	July 15, 1844.
Boot-shanks, elastic	Isaiah Gale	Natchez, Miss	July 11, 1844.
Boots, cork sole	William L. McCauley	Baltimore, Md	June 5, 1844.
Boots, cutting	Thomas Cranage	Warren, Ohio	Mar. 13, 1844.
Crimps for collar pads	Joseph S. Barkdull	Ballston, N Y	July 13, 1844.
Hames, horse	Nathan Past	Madrid, N. Y	June 15, 1844.
Hames, horse	Joseph K. Slater and Sylvanus G. Pratt	Boston, Mass	Sept. 20, 1844.
Harness, check hooks for	Abel B. Buell	Westmoreland, N. Y	Mar. 13, 1844.

Expired patents for inventions.—CLASS XVI.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Hats of leather, skins and other materials, machinery for forming.	Randall Fish	New York, N. Y	Oct. 12, 1844.
Hides, raw, machine for cutting	W. Marshall and J. B. Thursby	Brooklyn, N. Y	Sept. 14, 1844.
Leather, making	Robert Downey	New Albany, Ind	June 15, 1844.
Saddles, construction of	Samuel Ringgold	Fort McHenry, Md	April 7, 1844.
Sewing with a running stitch, machine for	James Rodgers	New York, N. Y	July 22. 1844
Soles, cutting	Richard Richards	Lynn, Mass	Dec. 16, 1844.
Tanning	John Cox	Gorgie Mills, Edinburgh, Scotl'd	June 5, 1844.
Tanning	Adam Kettering and A. Vogle	Hempfield, Penn	June 24, 1844.
Tanning	William Brown	Manchester, Md	Aug. 1, 1844.
Tanning	Alexander Turnbull	England	Aug. 28, 1847; antedated Sept. 26, 1844.

CLASS XVII.—HOUSEHOLD FURNITURE, *machines and implements for domestic purposes, including washing-machines, bread and cracker-machines, feather-dressing, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Bedsteads, bureau	Henry W. Kingman	New York, N. Y.	Oct. 12, 1844.
Bedsteads, cutting screws in the posts and on the rails of.	William F. Converse, R. H. Penny, and R. S. Hanniford.	Harrison, Ohio	Dec. 31, 1844.
Bedsteads, sacking bottoms for	Isaac Cooper	Johnstown, Penn	Oct. 7, 1844.
Bedsteads, sofa	G. Sickles, assignor to G. L. F. Griswold	Middletown, Conn	Dec. 4, 1844.
Bread, knife for cutting	Franklin Roys	Berlin, Conn	Oct 9, 1844.
Brooms, machine for making	Jacob H. Hinton	Lancaster, Pa	Mar. 13, 1844.
Brushes, scrubbing	George Carver	Chambersburg, Pa	Aug. 1, 1844.
Brushes, trimming the bristles of, &c	Samuel Taylor	East Cambridge, Mass	May 17, 1844.
Chairs, rocking	A. C. Stiles	South Bloomfield, Ohio	Sept. 27, 1844.

Coffee-pots	Daniel Rowland	Washington, D. C	Sept. 17, 1844.
Cracker-machine	J. Johnson and Otis Freeman, assignors to W. H. Tutte.	Boston, Mass	May 17, 1844.
Cutters, sausage meat	William Pettenger	Rome, Ohio	Mar. 26, 1844.
Cutters, sausage meat	Edwin Clark	Hartford, Conn	Aug. 31, 1844.
Exercise, machines for producing	Oliver Halsted	New York, N. Y	Mar. 13, 1844.
Fruit and vegetable preservers	Peter Kephart	Uniontown, Md	Sept. 24, 1844.
Potatoes, keeping sweet	Aaron H. Vestal	Cambridge City, Ind	Aug. 16, 1844.
Refrigerator	David Evans	Philadelphia, Pa	Mar. 26, 1844.
Washing-machine	James B. Coffin	Big Prairie, Ohio	Feb. 2, 1844.
Washing-machines	Ephraim Lukens	Baltimore, Md	Mar. 9, 1844.
Washing-machines	Lewis Woodward	Med ord, N. J	April 4. 1844.
Washing-machines	William Newbrough	Wooster, Ohio	April 17, 1844.
Washing-machines	William Soule	Stafford, Conn	May 17, 1844.
Washing-machines	Oliver B. Wight	Sturbridge, Mass	July 9, 1844.
Washing-machines	William E. Arnold	Rochester, N. Y	July 13, 1844.
Washing-machines	David Kaufman	Mohecanville, Ohio	Aug. 21, 1844.
Washing-machines	Nathan Parrish	Rush, N. Y	Dec. 4, 1844.

Class XVIII.—Arts polite, fine, and ornamental, *including music, painting, sculpture, engraving, books, paper, printing, binding, jewelry, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Block-letters, making	Lewis Katen	New York, N. Y	Sept. 20, 1844.
Inking-rollers	Richard M. Hoe	New York, N. Y	April 17, 1844.
Manifold letter-writers	Jesse K. Park	New York, N. Y	Nov. 13, 1844.
Marking and lettering packages, &c	William Francis and William Johnson	Waynesville, N. C	Oct. 3, 1844.
Piano-forte, tuning pins for	James Shaler Ives	Bristol, Conn	Jan 6, 1844.
Piano-fortes	Obed M. Coleman	Philadelphia, Pa	April 17, 1844.
Piano-fortes	Lovering Ricketts	Baltimore, Md	June 24, 1844.
Piano-fortes	O. Gori and P. Ernst	New York, N. Y	Mar. 26, 1844.
Printing calico	Robert Ferguson and John Clark	Glasgow, Scotland	April 25, 1846; antedated September 14, 1844.

Expired patents for inventions.—CLASS XVIII.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Printing in colors, machines for	Thomas F. Adams	Philadelphia, Pa	Sept. 17, 1844.
Printing-press	Alonzo Gilman	Troy, N. Y	Aug. 23, 1844.
Printing-press	Richard M. Hoe	New York, N. Y	July 30, 1844.
Printing-presses	Richard M. Hoe	New York, N Y	April 17, 1844.
Printing presses	Seth Adams	Boston, Mass	Sept. 27, 1844.
Stereotyping	Clement Davidson	Saratoga, N. Y	Nov. 26, 1844.

CLASS XIX.—FIRE-ARMS AND IMPLEMENTS OF WAR, AND PARTS THEREOF, *including the manufacture of shot and gunpowder.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Fire-arms	William W. Hubbell	Philadelphia, Pa	July 1, 1844.
Fire-arms	E. Savage and S North	Middletown, Conn	July 30, 1844.
Guns, constructing large	Richard F. Loper	Philadelphia, Pa	July 30, 1844.

CLASS XX.—SURGICAL AND MEDICAL INSTRUMENTS, *including trusses, dental instruments, bathing apparatus, &c.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Baths, vapor, apparatus for	Alford C. Haines	Plattsburg, N. Y	Dec. 4, 1844.
Corslet for curved spines, &c	Alanson Abbé	Roxbury, Mass	Aug. 7, 1844.
Cupping instrument	Robert J. Dodd	Philadelphia, Pa	April 13, 1844.
Fracture apparatus	Lewis Post	Lodi, N. Y	Dec. 16, 1844.
Fractures, apparatus for	Livingston Roe	White Plains, N. Y	Nov. 6, 1844; antedated May 6, 1844.

Invalids, chairs for	James G. Holmes	Charleston, S. C	Sept. 24, 1844.
Nursing-bottle	Eugene Dupuy	New York, N. Y	Oct. 7, 1844.
Stays for supporting spine of the human body	Lyman Whiton	Troy, N. Y	Oct. 12, 1844.
Teeth, setting artificial	J. Smith Dodge	New York, N. Y	Mar. 13, 1844.
Trusses	David Sabins	Lancaster, Pa	Mar. 20, 1844.
Trusses	Epenetus A. Bennett	New York, N. Y	April 30, 1844.
Trusses	C. C. Reinhardt and V. Carter	Baltimore, Md	Sept. 24, 1844.
Trusses	Eliakim C. Darling	New Orleans, La	Nov. 6, 1844.
Trusses	Ca vin Cutter	Springfield, Mass	Dec. 16, 1844.
Uterine injections, instruments for	Dan Gale	Boston, Mass	Oct. 16, 1844.

Class XXI.—Wearing apparel, *articles for the toilet, &c., including instruments for manufacturing.*

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Fitting ladies' dresses	Samuel S. Richardson	Baldwin, Maine	April 4, 1844.
Hooks and eyes	Elisha C. Savage	Hartford, Conn	Mar. 26, 1844.
Suspender buckles	Henry Dubosq	Philadelphia, Penn	April 25, 1844.
Tailors' measures	Henry Isham	Montpelier, Vt	May 30, 1844.
Tailors' measures	John P. Combs	Trenton, N. J	Nov. 9, 1844.

Class XXII.—Miscellaneous.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Awnings	John Sebo	Wilmington, Del	May 25, 1844.
India rubber, machine for cutting	Henry S Tyler and John Helm	New Brunswick, N. J	Oct. 9, 1844.
India rubber fabrics	Charles Goodyear	New York, N. Y	Mar. 9, 1844.
India rubber fabrics	Charles Goodyear	New York, N. Y	Mar. 9, 1844.
India rubber goods, corrugated and shirred	Horace H. Day	Jersey City, N. J	Oct. 12, 1844; antedated June 19, 1844.
Trap for catching animals	Thomas Shailer	Haddam, Conn	May 10, 1844.

CLASSIFIED LIST OF PATENTS FOR DESIGNS THAT HAVE EXPIRED DURING THE YEAR 1858.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Bedsteads	P. M. Hutton	Troy, N. Y	May 20, 1851.
Bedsteads, cast iron	Pelatiah M. Hutton	Troy, N. Y	Sept. 2, 1851.
Bust of Jenny Lind	Thomas Ball	Boston, Mass	April 29, 1851.
Clock frame	Nathaniel A. Batchelor	New York, N. Y	May 13, 1851.
Combs for ladies	Aaron Cook	Newtown, Conn	Aug. 19, 1851.
Fences, cast-iron	John T. Davy	Troy, N. Y	Oct. 21, 1851.
Floor, oil-cloth	James Hutchinson, assignor to D., A. E., and N. Powers.	Troy, N. Y	May 13, 1851.
Floor, oil-cloth	James Hutchinson, assignor to Deborah, Albert E., and N. B. Powers.	Troy, N. Y	Sept. 2, 1851.
Furnace-registers	Gardner Chilson	Boston, Mass	Mar. 4, 1851.
Furnace-registers	Gardner Chilson	Boston, Mass	Mar. 4, 1851.
Furnace-registers	Gardner Chilson	Boston, Mass	Mar. 4, 1851.
Furnace-registers	Gardner Chilson	Boston, Mass	Mar. 4, 1851.
Gates, metallic	Ebenezer Weeman	Charlestown, Mass	Sept. 16, 1851.
Grates, parlor	Joseph Pratt	Boston, Mass	Mar. 25, 1851.
Grates, parlor	Winslow Ames, assignor to Hartshorn and Ames.	Nashua, N. H	April 1, 1851.
Hat-stand	Charles Muller	Tompkinsville, N. Y	Nov. 18, 1851.
Iron-railing	Frederick Fitzgerald, assignor to Silas C. Herring and John Ryer.	New York, N. Y	Nov. 18, 1851.
Pedestals and columns	W. and W. H. Lewis	New York, N. Y	Mar. 25, 1851.
Presses, mantle-pieces, &c., frames for	Edmund L. Freeman	Bellville, N. Y	Dec. 23, 1851.
Shovel, stands for	Charles Zeuner, assignor to M. Greenwood & Co.	Cincinnati, Ohio	Sept. 9, 1851.
Stove	Ezra Ripley, assignor to Chollar, Sage, and Dunham.	Troy, N. Y	Oct. 28, 1851.
Stove, cook	William C. Davis	Cincinnati, Ohio	Jan. 1, 1851.
Stove doors and panels	M. C. Burleigh	Somersworth, N. H	May 13, 1851.
Stove-fronts	Ezra Ripley	Troy, N. Y	Sept. 30, 1851.
Stove or furnace, ventilating	E. P. Penniman, assignor to H. Ruttan	Rochester, N. Y	Sept. 16, 1851.
Stove, parlor	Ezra Ripley and N. S. Vedder, assignors to Low and Hicks.	Troy, N. Y	Nov. 25, 1851.

Stove-plates	Calvin Fulton	Rochester, N. Y	Sept. 2, 1851.
Stove-plates	Lyman S. Hapgood	Boston, Mass	June 3, 1851.
Stove-plates	Elijah P. Penniman	Rochester, N. Y	July 15, 1851.
Stove-plates	Elijah P. Penniman	Rochester, N. Y	July 15, 1851.
Stove-plates, parlor	Apollos Richmond, assignor to A. C. Barstow & Co.	Providence, R. I	Nov. 18, 1851.
Stove-registers	David Stuart and Jacob Beesly, assignors to William P. Cresson	Philadelphia, Pa	Dec. 2, 1851.
Stoves	R. J. Blanchard, assignor to Learned & Thatcher.	Albany, N. Y	July 29, 1851.
Stoves	R. J. Blanchard, assignor to Learned & Thatcher.	Albany, N. Y	July 29, 1851.
Stoves	R. J Blanchard, assignor to Learned & Thatcher.	Albany, N. Y	July 29, 1851.
Stoves	Silas Merchant	Cleveland, Ohio	Sept 2, 1851.
Stoves	Samuel H. Sailor, assignor to North, Harris, & Chase.	Philadelphia, Pa	Sept. 2, 1851.
Stoves	Anthony W. Jones, assignor to James McGregor, jr.	New York, N. Y	Sept. 2, 1851.
Stoves	Lyman Cobb	Ackron, Ohio	Oct. 14, 1851.
Stoves	Charles J. Woolson	Cleveland, Ohio	Oct. 14, 1851.
Stoves	William Savery	New York, N. Y	Oct. 21, 1851.
Stoves	S. W. Gibbs, assignor to North, Harrison, and Chase.	Albany, N. Y	Nov. 11, 1851.
Stoves	W. Ames, assignor to J. Hartshorn and W. Ames.	Nashua, N. H	Dec. 9, 1851.
Stoves	Jeremiah D. Green, assignor to Backus, Bacon, & Co.	Le Roy, N. Y	Dec. 9, 1851.
Stoves	Samuel W. Gibbs, assignor to Jagger, Treadwell, & Perry.	Albany, N. Y	Mar. 4, 1851.
Stoves	Samuel W. Gibbs, assignor to Jagger, Treadwell, & Perry.	Albany, N. Y	Mar. 4, 1851.
Stoves	Samuel W. Gibbs, assignor to Jagger, Treadwell, & Perry.	Albany, N. Y	Mar. 4, 1851.
Stoves	John S. Perry	Albany, N. Y	Mar. 4, 1851.
Stoves	J. Wager, D. Pratt, and V. Richmond	Troy, N. Y	May 20, 1851.
Stoves	Ezra Ripley, assignor to D. Stafford & Co	Troy, N. Y	May 27, 1851.
Stoves	N. P. Richardson	Portland, Me	May 27, 1851.
Stoves	William L. Hathaway	Dighton, Mass	May 27, 1851.

Expired patents for designs.

Inventions or discoveries.	Patentees.	Residence.	Date of patent.
Stoves	William L. Sanderson, assignor to R. R. Finch.	Troy, N. Y	June 3, 1851.
Stoves	Samuel W. Gibbs, assignor to Jagger, Treadwell, & Perry.	Albany, N. Y	June 10, 1851.
Stoves	A. Cox, E. Johnson, and D. B. Cox	Troy, N. Y	June 10, 1851.
Stoves	A. Cox, E. Johnson, and D. B. Cox	Troy, N. Y	June 10, 1851.
Stoves	W. G. Hallman	Philadelphia, Pa	June 10, 1851.
Stoves	John F. Rathbone	Albany, N. Y	June 10, 1851.
Stoves	D. Stuart and J. Beesley, assignors to W. P. Cresson.	Philadelphia, Pa	June 10, 1851.
Stoves	Joseph G. Lamb	Cincinnati, Ohio	June 17, 1851.
Stoves	Joseph G. Lamb	Cincinnati, Ohio	June 17, 1851.
Stoves	Samuel A. House	Mechanicsville, N. Y	June 24, 1851.
Stoves	William C. Davis	Cincinnati, Ohio	July 8, 1851.
Stoves	N. S. Vedder, assignor to A. T. Durham & Co.	Troy, N. Y	July 29, 1851.
Stoves	Charles Gilbert and Mitchell G. Hallman, assignors to Charles Gilbert.	Philadelphia, Pa	Jan. 1, 1851.
Stoves	Elihu Smith	Albany, N. Y	Jan. 7, 1851.
Stoves	Joseph G. Lamb	Cincinnati, Ohio	Jan. 21, 1851.
Stoves	C. Harris and Paul W Zoiner	Cincinnati, Ohio	Jan. 28, 1851.
Stoves	Seth Williams, assignor to Williams, Bird, and Co.	Nashua, N. Y	April 8, 1851.
Stoves	Samuel W. Gibbs, assignor to Jagger, Treadwell, and Co.	Albany, N. Y	April 8, 1851.
Stoves	James V. Dewitt	Buffalo, N. Y	July 8, 1851.
Stoves, air-tight	N. P. Richardson	Portland, Me	April 1, 1851.
Stoves, air-tight	Frederick Schultz	Philadelphia, Pa	April 1, 1851.
Stoves, cooking	S W. Gibbs, assignor to North, Harrison, and Chase.	Albany, N. Y	July 8, 1851.
Stoves, cooking	John F. Rathbone	Albany, N. Y	July 8, 1851.

Stoves, cooking	Samuel W. Gibbs, assignor to Jagger, Treadwell, and Perry.	Albany, N. Y	Jan. 21, 1851.
Stoves, cooking	Samuel A. House	Mechanicsville, N. Y.	Feb. 4, 1851.
Stoves, cooking	S. H. Sailor, assignor to Warnick, Liebrant, and Co.	Philadelphia, Pa.	Feb. 25, 1851.
Stoves, cooking	Dutee Arnold	Providence, R. I.	April 15, 1851.
Stoves, cooking	John Abendroth	Port Chester, N. Y	April 15, 1851.
Stoves, parlor	Joseph Pratt	Boston, Mass	July 8, 1851.
Stoves, parlor, plates of	Apollos Richmond, assignor to A. C Barstow & Co.	Providence, R. I.	July 15, 1851.
Stoves, plates of Franklin	John F. Rathbone	Albany, N. Y	July 8, 1851.
Table	Nathan Chapin	Syracuse, N. Y.	Sept. 30, 1851.
Tomb, cast-iron	H. K. Flinchbaugh	Conestoga, Pa	June 22, 1851.
Umbrella-stands	Edward J. Delany, assignor to Heins & Adamson.	Philadelphia, Pa	Feb. 18, 1851.
Water-coolers	William Burnett	Cincinnati, Ohio	July 8, 1851.

ALPHABETICAL LIST OF PERSONS TO WHOM PATENTS FOR INVENTIONS OR DISCOVERIES, AND FOR DESIGNS, HAVE BEEN GRANTED DURING THE YEAR 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Abbott & Lawrence. (See Smith & Brown, assignors.)			
	Abbott, S. R., *et al.* (See G. D. Sargent, assignor.)			
1044	Abendroth, William P.	Stove, cook's	Aug. 31, 1858	Design
20770	Abernethy, R. P., assignor to Union Cork Manufacturing Company.	Corks, machine for cutting	July 6, 1858	XXII.
20771	Abernethy, R. P., and M. M. Wombaugh	Corks, machine for cutting	July 6, 1858	XXII.
19116	Absterdam, John	Telegraphic cables, construction of	Jan. 19, 1858	VIII.
20534	Absterdam, John	Gas, apparatus for manufacturing	June 15, 1858	IV.
21543	Ackerman, C	Lock	Sept. 21, 1858	II.
19822	Adair, J. V	Harvester, corn	April 6, 1858	I.
21594	Adams, A	Corn-sheller	Sept. 28, 1858	I.
21174	Adams, Calvin	Corn-sheller	Aug. 17, 1858	I.
22223	Adams, F. C., and J. Peckover	Stove, cooking	Dec. 7, 1858	V.
546	Adams, Isaac	Printing-press	April 20, 1858	Reissue.
	Adams, James. (See Watson, James F., assignor.)			
22053	Adams, John	Wash-boards	Nov. 16, 1858	XVII.
21238	Adams, Newton	Rope, machinery for making	Aug. 24, 1858	III.
22272	Adams, R. A	Stencils	Dec. 14, 1858	XVIII.
21866	Adams, Sanford	Wire-riddles, tools for manufacturing	Oct. 26, 1858	II.
20314	Adams, Seth	Cock-valve	May 25, 1858	XI.
	Adams, Seth. (See Burnett, William, assignor.)			
	Adams, S. W., and B. B. Hill. (See Hill & Adams.)			
21055	Adams, W	Cultivator	Aug. 3, 1858	I.
	Aeby, A. E, and F. L. Kidder. (See Kidder & Aeby.)			
22337	Ager, W	Rice, mode of cleaning	Dec. 21, 1858	XIII.
21305	Agnew, John	Bale-hoops, coupling for	Aug. 31, 1858	XII.
22404	Ahl, Frederick	Boot-jack	Dec. 28, 1858	XXII.
19901	Aiken, Herrick	Awls and tools	April 12, 1858	II.

1001	Aiken, Herrick	Tool-box	May	11, 1858	Design.
20854	Aiken, N. P.	Knitting-machine	July	13, 1858	III.
22004	Aiken, W.	Knitting-machine	Nov.	9, 1858	III.
20398	Akers, Thomas P.	Boilers, steam, telephonic indicator for	June	1, 1858	VI.
21306	Akins, Henry S.	Plough, hillside	Aug.	31, 1858	I.
20397	Akins, John D.	Musical instruments	June	1, 1858	XVIII.
22152	Alberger, J. L.	Oils, kettle for trying	Nov.	30, 1858	III.
19178	Albertson, John R.	Planter, potato	Jan.	26, 1858	I.
20755	Albrecht, Joseph, assignor to Charles J. Rulh	Acid, sulphurous, obtaining pure	June	29, 1858	IV.
	Albro, Henry. (See Vrooman, H. S., assignor.)				
20611	Albro, Henry.	Wharf, floating, revolving	June	22, 1858	IX.
21644	Alcorn, James, jr.	Furnaces, steam-boiler	Oct.	5, 1858	V.
19402	Alcott, A. N.	Apple-corer	Feb.	23, 1858	XVII.
21307	Alden, John B., and Edwin L. Gates	Hose, &c., machine for cleaning	Aug.	31, 1858	XI.
20315	Alexander, C. W.	Rifles, breech-loading	May	25, 1858	XIX.
19536	Alexander, Thomas J.	Sawing-machine	Mar.	9, 1858	XIV.
21175	Allen David	Washing-machine	Aug.	17, 1858	XVII.
20316	Allen, A. J., and W. S. Hudson	Furnace-grates	May	25, 1858	V.
21400	Allen, Ethan	Fire-arm, revolving	Sept.	7, 1858	XIX.
22005	Allen, Ethan	Fire-arms, revolving	Nov.	9, 1858	XIX.
633	Allen, Ethan	Pistols and other fire-arms	Dec.	14, 1858	Reissue.
20612	Allen, F.	Brick-machine	June	22, 1858	XV.
20927	Allen, H.	Condenser, tube-joints for	July	20, 1858	VI.
21308	Allen, Horatio P.	Planter, cotton-seed	Aug.	31, 1858	I.
21476	Allen, John	Washing-machine	Sept.	14, 1858	XVII.
20768	Allen, John F.	Valve-gearing for steam-engines	June	29, 1858	VI.
20928	Allen, K. H.	Railroad rails, connecting the ends of	July	20, 1858	IX.
19975	Allen, N. E.	Rake, horse hay	April	20, 1858	I.
21401	Allen, R. L.	Harvester	Sept.	7, 1858	I.
19741	Allen, R. N.	Car axle-boxes, railroad	Mar.	23, 1858	X.
19331	Allen, T. F.	Cars, railway, mode of connecting the trucks of	Feb.	16, 1858	X.
19284	Allenden, John	Shoes, bags, &c., implement for holding open	Feb.	9, 1858	XVI.
21645	Allington, Silas	Gate	Oct	5, 1858	IX.
22006	Allis, Horace B.	Flour-cooler	Nov.	9, 1858	XIII.
	Allstatter, R., and P. Black. (See J. M. Long, assignor.)				
	Allyn, Y., and A. Hager. (See Hager & Allyn.)				
	Alston, William J., *et al.* (See Lytle, Alston, & True.)				

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20026	Alter, David, and Samuel A. Hill	Distilling coal, &c , revolving retorts for	April 27, 1858	IV.
21309	Alter, Jacob A	Locomotive-engines, scraper for removing sparks from the smoke-stack of.	Aug. 31, 1858	VI.
20463	Ambler, F. P., jr., assignor to F. P. Ambler & Sons.	Harness-saddles, construction of wooden saddle-trees for.	June 1, 1858	XVI.
20613	Ambrose, George	Engine, reciprocating rotary	June 22, 1858	VI.
20687	Ames, H. O	Evaporating vessels, arrangement of steam-coils in.	June 29, 1858	IV.
	Ames, Nathan, Samuel Green, *et al.* (See Donald McLean, assignor.)			
	American Book and Paper Folding Company. (See North, John, assignor.)			
19332	Ammen, Daniel	Lantern, signal	Feb. 16, 1858	VII.
21056	Anderson, A	Steam-engines, governor for	Aug. 3, 1858	VI.
	Anderson & Chadwick. (See Chadwick & Anderson.)			
19902	Anderson, Charles F	Seeding-machine	April 13, 1858	I.
	Anderson, John, William Toby, *et al.* (See Benjamin Pitcher, assignor).			
22054	Andrews, A. T. and J. H	Bomb-lance	Nov. 16, 1858	XIX.
	Andrews, J. K., and L. Matthews. (See Levi Matthews, assignor.)			
21239	Andrews, Solomon	Lamp burner, vapor	Aug. 24, 1858	V.
21310	Andrews, Solomon	Sewing-machine	Aug. 31, 1858	III.
21057	Angel, W. H., and M. Coffin	Wheat-separator	Aug. 3, 1858	I.
19285	Angell, Benjamin J	Sewing-machine	Feb. 9, 1858	III.
22055	Annan, Alexander	Knife-sharpener	Nov. 16, 1858	XVII.
	Anthony, Alfred, and G. F. Wilson, *et al.* (See James M. Whiting, assignor.)			
21176	Appleton, James S	Churn	Aug. 17, 1858	I.
	Area, H. A., *et al.* (See V. N. Mitchell, assignor.)			
	Arkerson & Kendrick. (See Kendrick & Arkerson.)			

21058	Armstrong, John J. and A T.	Knife-sharpener	Aug. 3, 1858	XVII.
21077	Armstrong, John T.	Sawing-machine, cross-cut	Aug. 17, 1858	XIV.
	Armstrong, R H, and W. Straw. (See Straw & Armstrong.)			
21477	Armstrong, W. T.	Washing-machine	Sept. 14, 1858	XVII.
21867	Armstrong, W. T.	Washing-machine	Oct. 26, 1858	XVII.
21718	Arnall, William M., assignor to himself, O. P. Smith, and A. C. Jordan.	Barrels, machine for crozing, chamfering, and bevelling.	Oct. 5, 1858	XIV.
19475	Arndt, Jacob	Bellows	Mar. 2, 1858	XI.
20535	Arnett, W. D.	Car axle-boxes, from pedestals, disconnecting	June 15, 1858	X.
19537	Arnold, Alfred	Engines, rotary steam	Mar. 9, 1858	VI.
19228	Arnold, Francis	Hair in curl, ladies' clamp for holding	Feb. 2, 1858	XXI.
20981	Arnold, H. L.	Stone-sawing machine	July 27, 1858	XV.
22338	Arnold, Horace L.	Car seats and couches	Dec. 21, 1858	X.
22405	Arnold, James G.	Envelope, letter	Dec. 29, 1858	XVIII.
	Arnold, S C. (See Isaac Rich, assignor.)			
	Ashcroft, E. H., *et al.* (See J. Jackman, jr., assignor.)			
	Ashcroft, Edward H. (See Franz Burckle.)			
	Ashmead, J. H., *et al.* (See Leroy White, assignor.)			
	Atkinson, S., and L. Crossman. (See Crossman & Atkinson.)			
20186	Atkins, George W.	Measurer, grain, self-regulating	May 11, 1858	VIII.
21402	Atwater, B.	Sewing-machine	Sept. 7, 1858	III.
21646	Atwater, Bryan	Trap, fly	Oct. 5, 1858	XXII.
19671	Atwater, James B	Pump	Mar. 23, 1858	XI.
	Atwood, Anson. (See Bosworth, George S., assignor.)			
21806	Atwood, E. G.	Skirts, skeleton	Oct. 19, 1858	XXI.
19903	Atwood, J. E. and J. C. and O	Sewing-machine	April 13, 1858	III.
22273	Atwood, James E.	Sewing-machine	Dec. 14, 1858	III.
21805	Atwood, L.	Oils, &c., extraction of volatile, from coal	Oct. 19, 1858	IV.
22406	Atwood, L.	Oils, pyrogenic, manufacture of	Dec. 28, 1858	IV.
22407	Atwood, Luther	Distillation, destructive, apparatus for	Dec. 28, 1858	IV.
22408	Atwood, Luther	Distillation of wood, &c., destructive, apparatus for	Dec. 28, 1858	IV.
	Ankney, P. J., and J. H. Grimsley. (See Grimsley & Ankney.)			
	Aultman. C., & Co. (See Lewis Miller, assignor.)			
	Austin, T. K., *et al.* (See Raymond & Robitaille, assignors.)			

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21730	Austin, Thomas K	Fire-arm, revolving	Oct. 12, 1858	XIX.
21589	Austin, William, assignor to himself and William Obdyke.	Teapots	Sept. 21, 1858	XVII.
19729	Averill, Damon R., assignor to himself and James F Davis.	Varnishes, composition for	Mar. 22, 1858	IV.
19064	Averill, L. B	Stave machine	Jan. 12, 1858	XIV.
19976	Avery, Cyrus	Horse-power, gearing for	April 20, 1858	XIII.
22007	Avery, O. & Z. W	Sewing-machine	Nov. 9, 1858	III.
	Avery, S., and C. D. Van Allen. (See Van Allen & Avery.)			
22396	Ayling, George C., assignor to himself and H. A. Ayling.)	Altitude, &c., instrument for measuring	Dec. 21, 1858	VIII.
	Aylsworth, T. D., and E. L Hagar. (See Hagar & Aylsworth.)			
21403	Ayres, David C	Harrows	Sept. 7, 1858	I.
21404	Babcock, A G	Planter, corn	Sept. 7, 1858	I.
21807	Babcock, A G	Seeding-machine	Oct 19, 1858	I.
21110	Babcock, D	Straw-cutter	Aug. 10, 1858	I.
19339	Babcock, J. K	Railroad snow-ploughs	Feb. 16, 1858	IX.
21731	Babcock, Joseph M	Stove, cook, hot-air	Oct. 12, 1858	V.
	Babcock, Nathan, and C. B. Cottrell. (See Cottrell, C. B., assignor.)			
	Babcock, S., *et al.* (See Cooley & Cooke, assignors.)			
21732	Babcock, W H	Window-blinds, method of adjusting	Oct. 12, 1858	IX.
	Batchelder, John, *et al.* (See Kennedy & Plummer, assignors.)			
617	Batchelder, John, assignor to Isaac M. Singer and Edward Clark.	Sewing-machine	Nov. 2, 1858	Reissue.
	Backus, Isaac, *et al.* (See Bates, R. H. N., assignor)			
	Bacon, F. M., and Joseph Fowler. (See Fowler & Bacon.)			

	Bacon, S. T. (See J. North, assignor.)			
22224	Bader, Adolphus	Table, extension	Dec. 7, 1858	XVII.
22339	Badger, John	Seeding-machine	Dec. 21, 1858	I.
20027	Baier, L.	Lock	April 27, 1858	II.
	Bailey, F., and Josee Johnson. (See Johnson & Bailey.)			
19336	Bailey, J. B.	Window-shades, rollers for	Feb. 16, 1858	XVII.
543	Bailey, J. B.	Window-shades, rollers for	April 13, 1858	Reissue.
19963	Bailey, John A., assignor to James Horner and James Ludlum.	Rolling-mills	April 13, 1858	II.
20615	Bailey, L.	Plane-irons, device for adjusting	June 22, 1858	XIV.
20855	Bailey, L.	Spoke-shave	July 13, 1858	XIV.
21311	Bailey, L.	Planes, bench, method of securing plane irons to the stocks of.	Aug. 31, 1858	XIV.
20134	Bailey, L., and R. Thayer	Lamps	May 4, 1858	V.
	Bailey, S. A., and R. Wheeler. (See Wheeler & Bailey.)			
22340	Bailey, Thomas D.	Pegging-jacks	Dec. 21, 1858	XVI.
21733	Bailey, Yarnal	Gas-burner	Oct. 12, 1858	V.
21178	Baird, James M.	Car-seats, railroad	Aug. 17, 1858	X.
19229	Baker, Artemus	Baskets, splint, tool for manufacturing	Feb. 2, 1858	XXII.
22274	Baker, Daniel S.	Wristband-fastener	Dec. 14, 1858	XXI.
	Baker & Grover, assignors. (See Grover & Baker.)			
19334	Baker, H. D.	Churn	Feb. 16, 1858	I.
19010	Baker, Henry F.	Planter, seed	Jan. 5, 1858	I.
	Baker, H. N., and H. M. Collier. (See Collier & Baker.)			
20539	Baker, John G.	Glazier's pins, machine for cutting	June 15, 1858	XXII.
19476	Baker, Joseph	Cherries, machine for stoning	Mar. 2, 1858	XVII.
	Baker, Potter, & Grover. (See Blodgett, S. C., assignor, through N. Hunt.)			
19122	Baker, Samuel	Planter, seed	Jan. 19, 1858	I.
	Baker, W. R., and J. B. McCormick. (See McCormick & Baker.)			
	Baldwin & Bliss. (See Watson, John F., assignor.)			
	Baldwin & Co. (See Bliss, E., assignor.)			
	Baldwin & Co. (See Watson, John F.)			
21240	Baldwin, Frederick	Lathe for turning beaded work	Aug. 24, 1858	XIV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20403	Baldwin, M. W.	Watches, attachment for, to ascertain the time without looking at the watch.	June 1, 1858	VIII.
19011	Baldwin, S.	Spinning oakum	Jan. 5, 1858	III.
22397	Baldwin, Samuel, assignor to Baldwin & Co.	Watch-faces	Dec. 21, 1858	VIII.
22153	Baldwin, Thomas C.	Curtain-fixtures	Dec. 1, 1858	XVII.
	Ball, Edward O., *et al.* (See Heneaze, Robert, assignor.)			
19808	Ball, George S., assignor to Benjamin Kuhns	Drills, seed	Mar. 30, 1858	I.
21933	Ball, J.	Swords, method of hanging	Nov. 2, 1858	XXII.
20246	Ball, Joseph E.	Hame-tugs, fastening for	May 18, 1858	XVI.
19977	Ball, L.	Life-boat	April 20, 1858	VII.
20614	Ball, L.	Cars from running off the track, preventing	June 22, 1858	X.
19675	Ball, Leverett	Railroad rails	Mar. 23, 1858	IX.
1060	Ball, T., assignor to George W. Nichols	Statues of Henry Clay	Nov. 9, 1858	Design.
19614	Ball, Thomas C., assignor to A. S. Davis and H. C. Handerson	Latch for doors	Mar. 23, 1858	II.
22049	Ball, Thomas C., assignor to himself and L. Bisco, A. S. Davis, K. Crossfield, Edward Edwards, and Sarah Green.	Car-wheels, railroad	Nov. 9, 1858	X.
22056	Ball, Thomas C.	Cradle, infants'	Nov. 16, 1858	XVII.
20135	Balla, James	Saws, band, device for sheltering from dust the lower carrying pulley of.	May 4, 1858	XIV.
19335	Ballard, Charles	Filtering apparatus	Feb. 16, 1858	XI.
19118	Baltzby, John W., and W. Hobson	Reapers, hand	Jan. 19, 1858	I.
20536	Bancker, G.	Brick-machine	June 15, 1858	XV.
21934	Bancker, Gerard, and A. Campbell	Motion, rotary, mechanism for transmitting	Nov. 2, 1858	XIII.
21106	Bancroft, N. W., assignor to himself and H. M. Proctor.	Butter-worker	Aug. 3, 1858	XVII.
19179	Banks, Joseph	Plough	Jan. 26, 1858	I.
19742	Banks, Joseph	Cultivator	Mar. 30, 1858	I.
20929	Banta, Jacob J.	Knife-cleaner	July 20, 1858	XVII.
20616	Bantz, Gideon	Furnaces for heating steam-boilers, &c.	June 22, 1858	V.

	Bantz, Gideon, and Adrian V. B. Orr. (See Orr & Bantz.)				
19120	Bapterosses, Jean Felix	Buttons	Jan.	19, 1858	XXI.
19180	Barden, John S	Pumps, rotary	Jan.	26, 1858	XI.
19464	Bardèn, John S., assignor to himself and Aaron W. Rockwood.	Engine, steam oscillating	Feb.	23, 1858	VI.
	Bargis, T. J., and J. E. Underwood. (See Underwood & Bargis)				
20399	Barker, P	Grain, machine for elevating, measuring, registering, and bagging.	June	1, 1858	XIII.
20474	Baker, Peleg	Threshing-machine, machine for measuring, registering. and receiving grain direct from.	June	8, 1858	I.
19539	Barlow, Charles E	Plane, floor	Mar.	9, 1858	XIV.
21808	Barlow, Nelson	Pots, coffee	Oct.	19, 1858	XVII.
21935	Barlow, Nelson	Saw-gummer	Nov.	2, 1858	II.
19337	Barnard, H	Ore-washer	Feb.	16, 1858	II.
19538	Barnard, Heman A	Wood of unequal lengths at once, mode of bending several pieces of.	Mar.	9, 1858	XIV.
19338	Barnard, Henry	Gold-washer	Feb.	16, 1858	II.
22154	Barnard, William B	Block, tackle	Dec.	1, 1858	VII.
21179	Barnes, Charles L	Augers, method of securing the centre of the spindles of.	Aug.	17, 1858	XIV.
189	Barnes, Charles R	Mill-stone dress for hulling rice	Jan.	26, 1858	Add'l imp't.
20464	Barnes, E., assignor to E. Crane	Railroad chairs	June	1, 1858	IX.
20930	Barnes, E. F	Telegraphing magnet easy of adjustment, combination of electro and permanent magnets to render.	July	20, 1858	VIII.
20982	Barnes, E. F	Telegraphic-machine, self-adjusting and embossing	July	27, 1858	VIII.
20617	Barnes, E. R	Railroad chair	June	22, 1858	IX.
19121	Barnes, Henry	Guns, lock of double-barrelled	Jan.	19, 1858	XIX.
22216	Barnes, Henry, assignor to himself and N. G. Macrum.	Press, hay and cotton	Dec.	1, 1858	XII.
19477	Barnes, Jethro W	Wagons, manure	Mar.	2, 1858	X.
21464	Barnes, Stephen, assignor to himself, Henry S. Parsons, and Samuel Rowland.	Brushes, manufacture of	Sept.	7, 1858	XVII.
	Barnes, T. H., *et al.* (See Lane, Jas. C., assignor.)				
	Barnes, W. T , and J. S. Buell, assignors. (See Buell & Barnes)				
20688	Barnes, W. T	Sewing-machines	June	29, 1858	III.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20318	Barnett, G. W	Wheels, driving, for portable steam-engines and agricultural implements, &c.	May 25, 1858	XIII.
20319	Barnett, George W	Boilers, steam	May 25, 1858	VI.
21868	Barnett, Samuel M	Scrubbing-machine	Oct. 26, 1858	XVII.
21809	Barney, John K	Gauge for contents of casks, &c	Oct. 19, 1858	XI.
	Barnum, Burr, Condit, Swift, and Carr. (See Frost & Monroe, assignors.)			
20136	Barnum, Daniel	Engines, steam	May 4, 1858	VI.
	Barnum, Daniel, *et al.* (See Low, Joshua, assignor.)			
	Barnum, J. W., *et al.* (See Tyler, S. G., assignor)			
22088	Barr, Daniel W	Hoisting-machine	Nov. 9, 1858	XII.
	Barry, Thomas, and E. A. Tuttle. (See Tuttle & Barry.)			
19119	Barrett, E. D	Valves and passages in the cylinders of steam engines, arrangement of.	Jan. 19, 1858	VI.
	Barrett, O. D., and W. De Witt (See De Witt & Barrett.)			
	Barrett, O. W. and E. E , *et al.* (See Morse & Hughes, assignors.)			
20473	Barrett, S. M., R. S. Lee, and J. M. Waters	Washboard	June 8, 1858	XVII.
22341	Barrington, J. A	Harvesters	Dec. 2, 1858	I.
20475	Barrington, John A	Harvesters, raking attachment to	June 8, 1858	I.
20689	Barrowman, Moses	Plough, drain	June 29, 1858	I.
19678	Barrows, E., jr	Furnaces, hot-air, self-adjusting damper for	Mar. 23, 1858	V.
	Barry, Thomas, and E. A. Tuttle. (See Tuttle & Barry)			
986	Barstow, A. C	Stoves	Jan. 19, 1858	Design.
1023	Barstow, A. C	Range fronts	July 6, 1858	Design.
1063	Barstow, A. C	Stoves, cooks'	Nov. 16, 1858	Design.

	Barstow, J. P., *et al.* (See Bates, R. H. N., assignor.)			
	Barstow, Samuel, *et al* (See Chichester, Lewis J., assignor.)			
19823	Bartholf, A.	Sewing-machine	April 6, 1858	III.
21734	Bartholomew, Frederick H.	Closet, water	Oct. 12, 1858	IX.
20540	Bartholomew, J.	Mills, grist, machine for gathering the toll in	June 15, 1858	XIII.
558	Bartle, Warren S.	Fertilizers, machine for sowing	May 18, 1858	Reissue
22104	Bartlett, Abel H.	Refrigerator	Nov. 23, 1858	XXII.
	Bartlett, Joseph W. (See Jackson, T. D., assignor.)			
	Bartlett, Lewis L (See Charles Hartwell, assignor.)			
21405	Bartlett, Louis D.	Sifters, coal or ashes	Sept. 7, 1858	V.
	Bartlett, N., and J. Wharton. (See Wharton and Bartlett.)			
19333	Barton, Chester	Seeding-machine	Feb. 16, 1858	I.
20538	Barton, J.	House-bell	June 15, 1858	XVII.
22155	Barton, James	Tool for cutting key-seats in wheels and pulleys	Dec. 1, 1858	II.
20187	Bartoo, J.	Water-wheel	May 11, 1858	XI.
20678	Baschnagel, Francis, assignor to himself and the Beverly Rubber Company.	Rubber, restoring waste vulcanized	June 22, 1858	IV.
	Bastian, G. (See Benton, Behn, and Bastian.)			
	Batchelder, *et al.* (See Watson, John F.)			
19170	Batchelder, Asahel G., assignor to Hiram E. Pearson and Alden M. Butterfield.	Blind-fixtures, window	Jan. 19, 1858	IX.
	Batchelder, J. M., and M. G. Farmer. (See Farmer and Batchelder.)			
26028	Batchelder, John M.	Inkstands	April 27, 1858	XVIII.
20604	Batchelder, W. W., assignor to William T. Townsend.	Gas-burners, argand	June 22, 1858	V.
22409	Batchelder, William W.	Lamp	Dec. 28, 1858	V.
19540	Batcheller, H. F.	Planters, hand corn	Mar. 9, 1858	I.
19978	Batchelor, Job	Saws, dressing	April 20, 1858	XIV.
20856	Bate, John J.	Kettles for rendering lard	July 13, 1858	V.
20386	Bateman, Horatio, assignor to William F. Bateman.	Lamp, vapor	May 25, 1858	V.
	Bates, Hardy, and Parkinson. (See Hardy and Parkinson, assignors.)			

Patentees of inventions and designs, 1858.

No.	Invention or discovery.	Invention or discovery.	Date.	Class.
1013	Bates, R. H. N, assignor to himself, Isaac Backus, and J P. Barstow.	Stove-doors	June 8, 1858	Design.
	Battle, John A M. (See Troost, Lewis, assignor.)			
19117	Bauder, Michael L.	Churn	Jan. 19, 1858	I.
	Bauman. (See Hersh, *et al.*)			
19277	Bayley, O. W., assignor to the Boston Locomotive Works.	Furnaces for locomotives	Feb. 2, 1858	V.
22057	Bayly, Obadiah J	Lock, safe	Nov. 16, 1858	II.
20690	Bazin, J. A.	Cordage, machinery for braiding	June 29, 1858	III.
20691	Bazin, J. A.	Cordage, webbing and manufacturing braided	June 29, 1858	III.
19904	Beach, Charles	Reaping and mowing machines	April 13, 1858	I.
19615	Beach, Henry H.	Winnower, grain	Mar. 16, 1858	I.
19906	Beadle, John L	Sawing-machine	April 13, 1858	XIV.
22009	Beach, Moses S	Paper, wetting, apparatus for	Nov. 9, 1858	XVIII.
22010	Beach, Moses S	Printing-presses	Nov. 9, 1858	XVIII.
22011	Beach, Moses S	Printing-presses, feeding out paper from	Nov. 9, 1858	XVIII.
19478	Beach, Waldren	Carriage-wheels, metallic	Mar. 2, 1858	X.
	Beadle, John L., and J. Stevens. (See Stevens Judd, assignor.)			
21478	Beals, Fordyce	Fire-arm, revolving	Sept. 14, 1858	XIX.
20692	Beardsly, B. A.	Mills, grinding	June 29, 1858	XIII.
21810	Beardsly, James H.	Paints, composition for	Oct. 19, 1858	IV.
20247	Beattie, William F. C	Gates, farm, method of opening and closing	May 18, 1858	IX.
19341	Beauche, Louis	Cigars, machinery for making	Sept. 16, 1858	XXII.
20541	Beaumont, William	Gas, apparatus for manufacturing	June 15, 1858	IV.
21479	Beverdy, Samuel	Skirts, ladies' hoop	Sept. 14, 1858	XXI.
	Becker, N. J, and J. M. Harvey. (See Harvey and Becker)			
21111	Becker, N. J., and J. M. Harvey	Threshing and separating grain, machine for	Aug. 10, 1858	I.
21312	Beck, James	Looms for weaving skirt-fringe	Aug. 31, 1858	III.
22156	Beckwith, J. F., and A. G. Gage	Planters, seed	Dec. 1, 1858	I.
19671	Beckwith, Robert R	Gun, walking-stick	Mar. 23, 1858	XIX.

21180	Bedgood, Thomas M.	Planters, corn	Aug. 17, 1858	I.
19616	Beebe, James W.	Hats, ventilating	Mar. 16, 1858	III.
20248	Beers, S. A	Rai's, railroad, fastening	May 18, 1858	IX.
21241	Beers, S. A	Railroad rails	Aug. 24, 1858	IX.
1005	Beesley, J., assignor to John S. Clark and Washington Harris.	Stove-doors	May 11, 1858	Design.
	Behn, Bastian, and Benton (See Benton, J. B., J. F. Behn, and G. Bastian.)			
20975	Behrens, H J., assignor to C F. Pomeroy	Soldering-iron	July 20, 1858	II.
	Beidelman, George and Samuel, and J. Orange (See Orange and Beidelman.)			
19905	Belchamber, Alfred	Winnowing-machines, chaff, screws for	April 13, 1858	I.
19907	Bellamy, E.	Pumps, double-acting force	April 13, 1858	XI.
20029	Bellinger, Franklin	Mill-stone dress	April 27, 1858	XIII.
20465	Bellingrath, Leonard J, assignor to T. and W. McLaurin and James W. Strange.	Distilling turpentine, apparatus for	June 1, 1858	IV.
22342	Pelson, R. W.	Stoves	Dec. 21, 1858	V.
19405	Belter, John H.	Furniture, method of manufacturing	Feb. 23, 1858	XVII.
19340	Bement, William B	Shafting, hangers for	Feb. 16, 1858	XIII.
	Bender, Edwin. (See Shedaker, Benjamin H., assignor.)			
	Benedict & Burnham Manufacturing Company. (See Jordan, E, assignor.)			
21406	Benedict, E. U	Railroad tracks, joints for	Sept. 7, 1858	IX.
21480	Benedict, E. U	Rails, T, joints for	Sept. 14, 1858	IX.
19065	Benedict, Newton	Carriage tops	Jan. 12, 1858	X.
	Benedict *et al.* (See DeWitt, John C., assignor.)			
19181	Bennett, Nicholas, assignor to David P rker	Washing-machine	Jan. 26, 1858	XVII.
20693	Bennett, W.	Tool handles, socket for	June 29, 1858	XIV.
1056	Bennett, William	Shovels, cast iron fire	Oct. 12, 1858	Design.
20931	Bennett, W. R., and C. Stover	Twine box	July 20, 1858	XXII.
20772	Benton, J. B, J. F. Behn, and G Bastian	Hay, machine for raking and loading	July 6, 1858	I.
21112	Berdan, A	Planters, seed	Aug. 10, 1858	I.
21113	Berdan, A	Harrows	Aug. 10, 1858	I.
19809	Bergen, Peter, assignor to Jane Ann Bergen	Corn-shellers	March 30, 1858	I.
	Berrian, John M. and Cornelius A. (See Hiler Selah, assignor.)			
22112	Berry, H. S	Tuyere, blacksmith's	Nov. 9, 1858	II.
20773	Berry, R. M	Sewing-machines	July 6, 1858	III.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22225	Berry, Robert M	Sewing machines	Dec. 7, 1858	III.
20618	Berry, Thomas	Harvester, hemp	June 22, 1858	I.
19743	Bertrand, C E	Sugar-mould carriage	March 30, 1858	IV.
	Bess Redden, and H. Sloan, *et al.* (See Turner, Alexander, assignor)			
	Bess, Turner, and Sloan. (See Turner, Bess, & Sloan.)			
	Best, John, and J. B. Clow (See McMurtry, John, assignor)			
22105	Bestwick, John, jr	Fastener, sash	Nov. 23, 1858	II.
20400	Bettley, A	Fence, lattice, iron	June 1, 1858	IX.
21735	Bettinger, Matthias, and A. Boos	Hinge	Oct. 12, 1858	II.
	Bevan, L. L., and Daniel Zuern. (See Zuern & Bevan.)			
19066	Bevard, William	Barrel-head machinery, circular-cutting, method of connecting the bevelling knives in.	Jan. 12, 1858	XIV.
	Beverly Rubber Company. (See Baschnagel, Francis, assignor.)			
	Beverly Rubber Company. (See Hall, Hiram L., assignor)			
21647	Biddle, Moses H	Traps, animal, construction of	Oct. 5 1858	XXII.
21544	Bidwell, S., assignor to New York Car and Steamboat Gas Company.	Gas-regulator	Sept. 21, 1858	IX.
21648	Bidwell, S. W	Window-blind, rolling	Oct. 5. 1858	IX.
20857	Bickford, D	Window-sashes, spring-pulley for	July 13, 1858	IX.
19479	Bickford, Dana	Pendulum, compound	March 2, 1858	VIII.
19744	Bickford, Dana	Time-keepers, regulator for	March 30, 1858	VIII.
21181	Bickford, L	Sowing fertilizers, machine for	Aug. 17, 1858	I.
	Bigelow & Bradley. (See Bradley & Bigelow)			
	Bigelow Brothers, *et al.* (See Watson, John F.)			
19824	Bigelow, E	Casters, syrup	April 6, 1858	XVII.
547	Bigelow, E	Casters, syrup	May 4, 1858	Reissue.
19673	Bigelow, George C	Door-sill, self-adjusting	March 23, 1858	IX.
20858	Bigelow, M. B	Paper, machines for cutting	July 13, 1858	XVIII.

19406	Billings, G. W	Dovetailing tool	Feb. 23, 1858	XIV.
19672	Bills, Henry A., and Stephen W. Wood	Printing press	March 23, 1858	XVIII.
21736	Binkley, Samuel	Drills, grain	Oct 12, 1858	I.
	Bird, John, David Challiner, *et al.* (See Reighhard, Jacob, assignor.)			
20249	Birdsell, John C	Hulling and threshing clover, machines for	May 18, 1858	I.
	Birmingham Iron Foundry Company. (See Clemons, Andrew B.)			
	Bisco, L., *et al.* See Ball, Thomas C., assignor.)			
19908	Bishop, E. B	Dredging-machine	April 13, 1858	IX.
20983	Bishop, George S	Cars, railroad, coupling for	July 28, 1858	X.
21737	Bishop, George S	Car-couplings	Oct. 12. 1858	X.
20774	Bishop, G. W	Stones, machinery for gathering	July 6, 1858	I.
21590	Bishop, Gilbert, assignor to Edward White	Veneers, machine for cutting	Sept. 21, 1858	XIV.
22226	Bishop, Robert H	Sewing-machine	Dec. 7, 1858	III
19124	Bishop, James	Railroad chair	Jan. 19. 1858	IX.
21738	Bishop, Josiah	Timekeepers, escapement for	Oct. 12, 1858	VIII.
21936	Bissell, Levi	Locomotive engines, trucks for	Nov. 2, 1858	VI.
	Bissell, Lounsberry, & Co. (See Butler, Thomas B., assignor)			
20030	Black, H. N	Hullers, rice	April 27, 1858	I.
21869	Black, J. F.	Harvesting-machines, grain discharging attachment to.	Dec. 26, 1858	I.
19604	Black, James, assignor to Scott, Todd, & Co	Steam, method of generating, in combination with atmospheric air as a motive power.	March 9, 1858	VI
22058	Black, Josiah	Lath-machine	Nov. 16, 1858	XIV.
	Black, P. and Allstatter. (See Long, J. M., assignor)			
21182	Black, William	Plough	Aug. 17, 1858	I.
	Blackman, S. G., and E. J. Manville. (See Manville & Blackman.)			
19745	Blackwell, J V	Hulling and cleaning clover seed, machinery for	March 30, 1858	I.
	Blackwell, S. M, *et al.* (See Culver, E., jr., assignor.)			
20542	Blake, Eli W	Stones, machine for crushing	June 15, 1858	XV.
20031	Blake, Henry D	Furniture casters	April 27, 1858	XVII.
19123	Blake, James P	Nails, trunk, machinery for covering the heads of	Jan. 19, 1858	II.
20775	Blake, L R	Sewing-machines	July 6, 1858	III.
	Blake, Robert, and L Button (See Button & Blake)			

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
1008	Blanchard, A. L.	Aquaria	June 1, 1858	Design.
21407	Blanchard, George	Closet, water	Sept. 7, 1858	IX.
19480	Blanchard, Thomas	Bending of shovel handles	Mar. 2, 1858	XIV.
19541	Blanchard, Thomas	Mills for reducing substances	Mar. 9, 1858	XIII.
19746	Blanchard, Thomas	Cigars	Mar. 30, 1858	XXII.
20137	Blanchard, Thomas	Wood, machine for bending	May 4, 1858	XIV.
21059	Blandy, H. and F. J. L.	Engines, steam	Aug. 3, 1858	VI.
19230	Blau, Hermann	Carpet-stretcher	Feb 2, 1858	XVII.
	Bliss & Baldwin. (See Watson, John F., assignor.)			
19966	Bliss, E., assignor to Baldwin & Co	Watch-cases	April 13, 1858	VIII.
628	Bliss, Elihu, assignor to Baldwin & Co	Watch-cases	Nov 23, 1858	Reissue.
20859	Bliss, J. W	Door-plates	July 13, 1858	XXII.
	Bliss, J. W. (See Harkness, J. W., assignor.)			
20984	Bliven, S. R.	Plough	July 27, 1858	I.
21465	Blodgett, S. C., assignor to G. B. Sloat & Co	Sewing-machines	Sept. 7, 1858	III.
613	Blodgett, Sherburne C., assignor (through N. Hunt) to O. B. Potter, W. O. Grover, and W. E. Baker.	Sewing-machines	Oct. 12, 1858	Reissue.
21870	Blondyn, A. C.	Car-seats	Oct. 26, 1858	X.
22059	Blood, Asa, jr	Bee-hives	Nov. 16, 1858	I.
19401	Bloodworth, Elijah H	Plough	Feb. 16, 1858	I.
19747	Boardman, Byron	Staples for blind-slats	Mar. 30, 1858	II.
	Boardman, Harris, *et al.* (See Spencer, Seth P., assignor.)			
19232	Bocage, Joseph W	Presses, jack-screw	Feb. 2, 1858	XII.
	Bodley & Lane. (See Smith & Lane, assignors.)			
1030	Bodine, John F., assignor to himself and William H. and J. Alfred Bodine.	Can-covers	Aug. 3, 1858	Design.
	Bodine & Potter. (See Borden, J., assignor to David Potter and Francis B. Bodine.)			
21313	Boernicke, C.	Umbrellas	Aug. 31, 1858	XXI.

	Bogert, Horatio. (See Bradford, Hezekiah, assignor.)				
	Bogert, Horatio. (See Perry & Fitzgerald, assignors.)				
21811	Boggs, W. T.	Gates, farm, mode of opening and closing	Oct.	19, 1858	IX.
20401	Bollens, A. D.	Photographic cameras, plate-holders for	June	1, 1858	XVIII.
19481	Bolton, Aquila	Coal, machine for breaking	Mar.	2, 1858	V.
20619	Bond, Oliver	Screw-drivers, handle for	June	22, 1858	II.
	Bonn, John H. (See Schleier, Charles S., assignor.)				
21183	Bonney, J. S., and C. W. Willard	Steam trip-hammers, operating	Aug.	17, 1858	VI.
	Boos, A., and M. Bettinger. (See Bettinger & Boos.)				
20250	Booth, A.	Shot, making	May	18, 1858	XIX.
21545	Booth, John	Brick-machine	Sept.	21, 1858	XV.
	Booth, R. W. (See Knight, Judson, assignor.)				
19964	Borden, J., assignor to David Potter and Francis B. Bodine.	Jars, preserving	April	13, 1858	XVII.
20032	Boorman, W.	Eggs, beating, churning, and the like processes, apparatus for	April	27, 1858	XVII.
19125	Borum, Samuel R., and William M. McClean	Ploughs	Jan	19, 1858	I.
20860	Bossard, J. S.	Hulling rice, machine for	July	13, 1858	I.
	Boston Locomotive Works. (See Bayley, O. W., assignor.)				
20694	Bostrom, E. T.	Planters, cotton-seed	June	29, 1858	I.
19979	Bosworth, C. F.	Sewing-machine	April	20. 1358	III.
21863	Bosworth, George S., assignor to Anson Atwood	Iron, cast, manufacturing car-wheels of	Oct.	19, 1858	III.
522	Bosworth, Zephaniah, assignor to James M. McKinlay.	Stoves, air-tight	Jan.	19, 1858	Reissue.
21314	Bottoms, Thomas J.	Seeding machines	Aug.	31, 1858	I.
	Bottoms, Thomas J., and James A. Bullock. (See Bullock & Bottoms.)				
201	Bottum, J. M.	Watchmakers' lathes, polishing apparatus for	June	8, 1858	Add'l imp't.
22227	Bowen, Jesse	Washing-machine	Dec.	7, 1858	XVII.
	Bower, Oliver P., *et al.* (See Hamilton, G. W.)				
	Bowers, W., and J. G. Goshon. (See Goshon & Bowers.)				
20387	Bowes, M., assignor to himself and George B. Waterhouse.	Pipe, machine for cutting	May	25, 1858	II.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19231	Bowker, Sewall H	Bonnet-frames, machine for forming	Feb. 2, 1858	III.
20033	Boyce, John A	Vehicles, attaching shafts to	April 27, 1858	X.
22275	Boyd, A. H	Sewing-machines	Dec. 14, 1858	III.
19171	Boyd, Amos H., assignor to Oliver D Boyd	Sewing-machines	Jan. 19, 1858	III.
19730	Boyd, Amos H , assignor to Samuel F. Chase	Shoe-peg machine	Mar. 23, 1858	XVI.
20016	Boyd, Amos H , assignor to Samuel F. Chase	Wooden dowel-pins, machine for making	April 20, 1858	XIV.
19233	Boyd. David M	Shingle-machine	Feb 2, 1858	XIV.
20695	Boyd, John T	Cloth, machines for turning selvages in	June 29, 1858	III
19067	Boyd, Joseph F	Sails, reefing	Jan. 12, 1858	VII.
	Boyd, S. (See Knight, Judson, assignor)			
20402	Boyd, W	Signals, semaphoric mechanism for operating	June 1, 1858	VIII.
20320	Boyden, O S , and M. C. Frederick	Composition for varnishing leather	May 25, 1858	IV.
19286	Boyers, William	Pumps	Feb. 9, 1858	XI.
19825	Brabyn, John L	Traps for animals	April 6, 1858	XXII.
20476	Braden, J. A	Lock	June 8, 1858	II.
21546	Braden, Joseph A	Shears	Sept. 21, 1858	II.
638	Braden, Joseph A	Shears	Dec. 28, 1858	Reissue.
612	Bradfield, Edward	Bolting flour	Oct. 12, 1858	Reissue.
20756	Bradford, Hezekiah, assignor to Horatio Bogert	Ore-separator	June 29, 1858	II.
	Bradford. L. H., and James A. Cutting. (See Cutting & Bradford)			
	Bradley, W. L & N. L., *et al.* (See Hubbard, G. W., assignor.)			
20190	Bradley, William	Warps, dressing and sizing	May 11, 1858	III.
213	Bradley, William	Warps, dressing and sizing, machinery for	Dec. 21, 1858	Add'l imp't.
22410	Bradley, William A., and Jacob Bigelow	Fuel, artificial, manufacture of	Dec. 28, 1858	V.
19407	Brady, Elijah	Stone-dressing machine	Feb. 23, 1858	XV.
	Brady, George H. (See Lyon & Brady)			
21184	Brady, J P	Mill-pick holders	Aug. 17, 1858	XIII.
	Bragg, Isaac W. (See Cope & Bragg)			
19012	Branch, John L., Isaac, and Daniel W	Car-brake, railroad	Jan. 5, 1858	X.
	Brandebury, Louis. (See Brauer, Louis, assignor.)			

	Brastow, George O , *et al.* (See Gray, Joshua, assignor.)			
20986	Brauer, Louis	Omnibus-register	July 27, 1858	X.
19278	Brauer, Louis, assignor to himself and L G. Brandebury and Joseph B. Stewart.	Telegraphic cables, apparatus for paying out	Feb. 2, 1858	VIII.
21060	Brazelton, E	Removing submarine deposits, method of	Aug. 3, 1858	IX.
19342	Breckenridge, J. H.	Powder-flask	Feb. 16, 1858	XIX.
21812	Breden. Otis	Nails, wrought manufacture of	Oct. 19, 1858	II.
21481	Bredt, Ernest	Skirting materials, manufacture of	Sept. 14. 1858	III.
19826	Breinig, David E	Mills, grinding	April 6, 1858	XIII.
19343	Breisach, L. R	Chair, rotating, blast producing	Feb. 16, 1858	XVII.
199	Breisach. L R	Chair, rotary, blast producing	June 1, 1858	Add'l imp't.
22343	Bremmer, C. A	Roofing, composition for	Dec. 21, 1858	IX.
20757	Brey, E., assignor to himself and J. S. Swartley	Gun-lock, double acting	June 29, 1858	XIX.
21242	Brickill, J H	Spinning-mules	Aug. 24, 1858	III.
19403	Bridge, William H	Cable-stoppers	Feb. 23, 1858	VII.
21937	Bridger, James	Leather straps, tool for chamfering	Nov. 2, 1858	XVI.
20321	Bridwell, Richard F	Sounding-apparatus	May 25, 1858	VII.
	Briggs, Hoover, Sloan, and Smith. (See Sloan, Smith, Hoover, & Briggs)			
19344	Briggs, Albert D	Harvesters	Feb. 16, 1858	I.
20987	Briggs, Albert D	Bridges, truss, bearing-blocks of	July 27, 1858	IX.
22106	Briggs, John C	Bridges, truss	Nov. 23, 1858	IX.
	Briggs, Joseph H. (See Denham & Briggs.)			
1053	Briggs, Martin	Fences, cast-iron	Oct. 5, 1858	Design.
20034	Brigham, Dennis	Evaporating brine, apparatus for	April 27, 1858	IV.
22060	Brinkerhoff, John P	Spoons, machine for making	Nov. 16, 1858	II.
19909	Brinley, Thomas E C	Ploughs	April 13, 1858	I.
21547	Brinley, Thomas E C	Ploughs, press and drill	Sept. 21, 1858	I.
20238	Brocksieper & J. B Sargent, assignor to Joseph B. Sargent.	Fastener, sash	May 11, 1858	II.
	Broderick, William. (See Burnett & Broderick.)			
20477	Brodie, George	Boilers, steam, apparatus for supplying water to	June 8, 1858	VI.
	Brokaw, Child, & Warder. (See Harding, Thomas, assignor)			
20017	Brokaw, J. W., assignor to Warder, Brokaw, & Child.	Reaping-machines	April 20, 1858	I.
20251	Brokaw, J. W , assignor to Warder, Brokaw, & Child.	Reaping and mowing machines	May 18, 1858	I.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21533	Brokaw, J. W., assignor to Warder, Brokaw, & Child.	Harvesters, guard fingers for	Sept. 14, 1858	I.
	Bromwell, William. (See Holzer, Charles F., assignor.)			
559	Bronson, Austin	Stoves, cooking	May 18, 1858	Reissue.
21061	Brooks, Aaron	Crank, substitute for the	Aug. 3, 1858	XIII.
20776	Brooks, E , and G. Walker	Fire-arm, breech-loading	July 6, 1858	XIX.
22336	Brooks, Olive Ann, administratrix of Lebbius Brooks, deceased.	Straw cutter	Dec. 14, 1858	I.
22344	Broughton, John	Engines, steam, cut-off gear for	Dec. 21, 1858	VI.
20985	Brower, A	Cement, water-proof	July 27, 1858	IV.
20322	Brower, W. G	Ice, machine for hoisting	May 25, 1858	XXII.
	Brown & Smith, assignors to North, Chase, & North (See Smith & Brown, assignors)			
	Brown & Smith, assignors to McDowell & Co. (See Smith & Brown.)			
19127	Brown, A. D	Furniture, construction of	Jan. 19, 1858	XVII.
	Brown, A , and L. Higgins. (See Higgins & Brown.)			
20543	Brown, Alanson	Quilting frame	June 15, 1858	XVII.
22061	Brown, Azro	Shoe-peg machine	Nov. 16, 1858	XVI.
	Brown, B. F. (See Brown E. L , assignor to B F. Brown.)			
19617	Brown, C B	Drills, seed	Mar. 16, 1858	I.
20191	Brown, C. B	Harvesters	May 11, 1858	I.
	Brown, C. B., and D. J. Lake. (See Granger, W. J., assignor)			
	Brown, C. W	Tonguing and grooving machine	July 28, 1858	Extension.
22262	Brown, Cyriel E , assignor to himself, John Tenney, and John Rhodes.	Spindles for throstle spinning	Dec. 7, 1858	III.
20679	Brown, E. L., assignor to B F. Brown	Vault covers, safety	June 22, 1858	IX.
19182	Brown, Edmund	Pepper boxes, air-tight	Jan. 26, 1858	XVII.

526	Brown, George W	Planters, seed	Feb. 16, 1858	Reissue.
	Brown, H. (See Smith, Brown, & Sailor, assignors.)			
	Brown, H. (See Smith & Brown, assignors to Abbott & Lawrence.)			
19828	Brown, Harvey	Churn	April 6, 1858	I.
20696	Brown, Harvey	Sawing-machine, rotary	June 29, 1858	XIV.
21482	Brown, Harvey	Sawing-machine, endless, sectional	Sept. 14, 1858	XIV.
	Brown, Henry H., *et al.* (See Farson, Enoch S , assignor.)			
19679	Brown, Hiram W	Gins, cotton	Mar. 23, 1858	III.
19965	Brown, J. S., assignor to himself and Joseph Kent.	Ovens	April 13, 1858	XVII.
20466	Brown, J. S., assignor to himself and Joseph Kent.	Stoves	June 1, 1858	V.
22157	Brown, James R	Pipe tongs	Dec. 1, 1858	II.
22411	Brown, Job	Measure, grain	Dec. 28, 1858	VIII.
19126	Brown, John A	Planters, seed	Jan. 19, 1858	I.
21062	Brown, R. J	Mills, flouring	Aug. 3, 1858	XIII.
19827	Brown, Robert	Coffee, apparatus for roasting	April 6, 1858	XVII.
21315	Brown, Robert J	Fence, portable	Aug. 31, 1858	IX.
20544	Brown, S. R	Sash-holder	June 15, 1858	II.
	Brown, Samuel, jr. (See Farrington & Brown, jr., assignors.)			
19677	Brown, Timothy	Metallic cheese-hoops, casting	Mar. 23, 1858	II.
	Brown, Thomas W. (See Reynolds, Edward, assignor.)			
20189	Brown, W	Churn	May 11, 1858	I.
	Brown, Wightman, and John F. Smith. (See Smith & Brown.)			
20932	Brown, William	Washing-machine	July 20, 1858	XVII.
	Brown, William G. (See Sawyer, Robert, assignor.)			
	Browne, Albert G., *et al.* (See Gray, William H., assignor.)			
19542	Browne, John H	Skins, artificial, manufactory of	March 9, 1858	XVI.
	Bruce, David, jr	Type-casting machines	June 30, 1858	Extension.
985	Bruce, George	Types	Jan. 19, 1858	Design.
1006	Bruce, George	Types, set of printing	May 25, 1858	Design.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
1014	Bruce, George	Types, printers'	June 15, 1858	Design.
1033	Bruce, George	Types, printers'	Aug. 10, 1858	Design.
1054	Bruff, Richard P., and Charles and G. A. Seaver	Marks, trade	Oct. 5, 1858	Design.
21316	Brumfield, O. H. S	Drills, seed	Aug. 31, 1858	I.
19676	Bruns, Adolphus	Carriages, &c., securing the wheels of	March 23, 1858	X.
20545	Brush, A. G	Churns, operating	June 15, 1858	I.
22158	Bryant, Henry, and R. D. O. Smith	Photographic plate shield	Dec. 1, 1858	XVIII.
601	Bryant, Joel	Ship-board, hoisting winches for	Sept. 21, 1858	Reissue.
22159	Bryant, Joel	Scissors	Dec. 1, 1858	XXI.
21018	Bryden, E. O.	Drills, wheat	July 27, 1858	I.
20620	Bryent, assignor to Daniel D. Badger	Railroad track and cast-iron pavement combined	June 22, 1858	IX.
1063	Bryson, R	Harvesters, grain and grass	Aug. 3, 1848	I.
19482	Buchanan, Andrew	Paddle-wheels	March 2, 1858	VII.
21938	Buchanan, J. H	Stoves	Nov. 2, 1858	V.
20546	Buchannan, C. S	Boilers, rotary, mode of heating	June 15, 1858	V.
19234	Bucklin, Moses	Cultivator teeth	Feb. 2, 1858	I.
527	Buckman, Ira	Gun walking-stick	Feb. 16, 1858	Reissue.
21230	Buel, J. S., and W. T. Barnes, assignors to J. Forsyth, R. D. Rockwell, V. M. Rice, and W. T. Barnes.	Sewing-machines	Aug. 17, 1858	III.
19810	Bulkley, H. C., assignor to James M. Ross	Car wheels, railroad	Mar. 30, 1858	X.
21185	Bulkley, H. G	Heating apparatus, steam	Aug. 17, 1858	V.
	Bullard, Charles H. (See Gordon, Thos., assignor.)			
19980	Bullard, Silas	Sleds, runners of	April 20, 1858	X.
22345	Bullock, Chester	Harvesters	Dec. 21, 1858	I.
21317	Bullock, James A., and Thomas J. Bottoms	Presses, cotton	Aug. 31, 1858	XII.
21591	Bullock, William, assignor to Geo. W. Taylor	Printing presses, automatic paper-feeder for	Sept. 21, 1858	XVIII.
20861	Bumgarner, J .R., and L. White	Hides and leather, machine for dressing	July 13, 1858	XVI.
	Bumgarner & White. (See White, L , and J. T. Bumgarner.)			
21871	Bump, James H	Churns	Oct. 26, 1858	I.
21813	Bunce, Benjamin	Valves, cut-off, for steam engines	Oct. 19, 1858	VI.

20323	Bunce, J. T.	Lathes	May	25, 1858	XIV.
21872	Bunce, William	Splints, extension	Oct.	26, 1858	XX.
21595	Bunsen, George C., and Cyrus Roberts	Seeding-machines	Sept.	28, 1858	I.
20862	Burbank, A.	Propeller for canal boats	July	13, 1858	VII.
	Burbank, John A , and Thomas Dugdale. (See Dugdale, Thomas A., assignor.)				
19731	Burekle, Franz, assignor to Edward H. Ashcroft	Gauges, steam	Mar.	23, 1858	VI.
193	Burdge, Jonathan	Mills, cutting flour	Mar.	9, 1858	Add'l imp't.
	Burdick, Hatfield, & Cloud. (See Cloud, Hatfield, & Burdiek)				
20138	Burdick, F. & L.	Hulling rice, machines for	May	4, 1858	I.
20933	Burdine, A. H	Saws, gin, machinery for sharpening	July	20, 1858	II.
21483	Burdine, A. H	Saw filer	Sept.	14, 1858	II.
19068	Burghart, William	Guns, needle	Jan.	12, 1858	XIX.
21114	Burk, N.	Leather into bales, machines for rolling	Aug.	10, 1858	XVI.
	Burke, Edmund, *et al.* (See Turner, Josiah, assignor.)				
22013	Burke, John M.	Ploughs	Nov.	9, 1858	I.
20478	Burket, George	Bedstead fastenings	June	8, 1858	XVII.
19618	Burling, Benjamin	Life preserving buoy	Mar.	16, 1858	VII.
21862	Burlingame, Stephen S., assignor to himself and William Taylor.	Lock, bank	Oct.	19, 1858	II.
21318	Burnell, Levi	Pump, rotary	Aug.	31, 1858	XI.
211	Burnell, Levi	Pump, rotary	Dec.	14, 1858	Add'l imp't.
22160	Burnet, Serrington S., and William Broderick	Sewing-machines	Dec.	1, 1858	III.
21649	Burnett, William	Pencil sharpener, slate	Oct.	5, 1858	XVIII.
19400	Burnett, William, assignor to Seth Adams	Gauge, steam pressure	Feb.	16, 1858	VI.
20841	Burnham, A., assignor to himself and Jas. M. Cook.	Railway bridge signalizer	July	6, 1858	IX.
21939	Burnham, C. E.	Hinge, gate	Nov.	2, 1858	II.
	Burnham, Charles, and William W. Wade. (See Wade & Burnham.)				
	Burns, D. H., and A. Lapham. (See Lapham & Burns.)				
21243	Burns, J	Addometer	Aug.	24, 1858	VIII.
20547	Burnside, S.	Seeding-machines	June	15, 1858	I.
	Burr, Condit, Swift, Barnum, & Carr. (See Frost & Monroe, assignors.)				
	Burr, Samuel J., and H. F. Read. (See Read, H. F., assignor.)				

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20035	Burrall, Thomas D	Mowing-machines	April 27, 1858	I.
20139	Burridge and Post	Car couplings, railroad	May 4, 1858	X.
21940	Burson, W. W	Harvester, raking attachment to	Nov. 2, 1858	I.
19408	Burt, George E., and George F. Wright	Horse powers, &c., wheel and axle attachment of	Feb. 23, 1858	XIII.
22161	Burt, Henry	Eggs, apparatus for assorting	Dec. 1, 1858	XVII.
	Burton, Charles E., *et al.* (See Reed, Henry G., assignor.)			
19069	Burton, J. D	Bureau and washstands, construction of	Jan. 12, 1858	XVII.
20621	Burton, J. D	Refrigerator	June 22, 1858	XVII.
20988	Burtis, P T	Gasometers, method of counterpoising	July 27, 1858	IV.
21064	Bush, W	Fence, metallic	Aug. 3, 1858	IX.
20605	Bussell, E. T., assignor to Wambaugh, Brothers, & Co.	Cultivators, rotary	June 15, 1858	I.
19183	Bussell, Erastus T	Power, machinery for obtaining and preserving, from trains while passing railway stations.	Jan. 26, 1858	XIII.
21814	Bussell, Erastus T., and Joseph Smith	Gauge, liquid	Oct. 19, 1858	XI.
20697	Butcher, W. A	Coating metallic surfaces	June 29, 1858	IV.
19345	Butler, Derwin, E	Musical instruments, device for cutting key-boards for.	Feb. 16, 1858	XVIII.
22107	Butler, Derwin E	Sawing machines, felloe, devices for clamping and feeding the bolt in.	Nov. 23, 1858	XIV.
21115	Butler, F. M	Chimneys, wind-guard for	Aug. 10, 1858	V.
22151	Butler, J. M	Wells, apparatus for boring	Nov. 23, 1858	IX.
19235	Butler, Thomas B	Cloth, felt, mode of forming the bat for making	Feb. 2, 1858	III.
21116	Butler, Thomas B	Wool, &c., operating the teeth of cylinders for burring.	Aug. 10, 1858	III.
21164	Butler, Thomas B., assignor to Lounsbury, Bissell, & Co.	Felting, machinery for forming bats for	Aug. 10, 1858	III.
	Butler, W. H., and Valentine. (See Gale, W. S., assignor.)			
21319	Butler, W. S	Shears, manufacturing	Aug. 31, 1858	II.
20479	Butter, John	Mowing-machine	June 8, 1858	I.

	Butterfield & Pearson. (See Batchelder, Asahel, assignor.)			
19483	Butterfield, J. S	Harvester	Mar. 2, 1858	I.
22162	Button, Lysander, and Robert Blake	Fire-engine	Dec. 1, 1858	V.
19404	Butts, L. A	Planters, seed	Feb. 23, 1858	I.
19910	Buzzell, David	Car seats, railroad	April 13, 1858	X.
21320	Buzzell, David	Chair, recumbent	Aug. 31, 1858	XVII.
21794	Byam, E. G. and B. E. P., assignors to E. and E. G. Byam, and S. A. Carlton.	Match cards, rack for holding	Oct. 12, 1858	XXII.
21650	Byrne, Oliver, and J. G. Elliot	Propeller, screw	Oct. 5, 1858	VII.
20989	Cady, J. L., assignor to J. B. and W. W. Cornell & Co.	Safes, plates for burglar proof	July 27, 1858	V.
554	Cahoon, C. W., assignor to J. B. Cahoon and D. H. Furbish.	Seeding-machine	May 11, 1858	Reissue.
21321	Calhoun, Alexander	Printers' composing-sticks	Aug. 31, 1858	XVIII.
20549	Calkins, G. W., and H. White	Kilns, lime	June 15, 1858	XV.
	Calvert, Francis A., and Charles G. Sargent. (See Sargent & Calvert.)			
	Cameron, George L. (See Moore & Cameron.)			
22014	Cameron, William	Pressing tobacco, machinery for	Nov. 9, 1858	XII.
	Campbell, A., and Gerard Bancker. (See Bancker & Campbell.)			
21548	Campbell, C	Truss-pads	Sept. 21, 1858	XX.
20760	Campbell, Ethan, assignor to Henry Thayer	Rectifying, apparatus for	June 29, 1858	IV.
21244	Campbell, J., V. B. Lighthizer, and P. Shannon	Cars, railroad, coupling for	Aug. 24, 1858	X.
21173	Campbell, J. W	Gilding, machine for preparing frames for	Aug. 10, 1858	XVIII.
21484	Campbell, James A	Printing-presses	Sept. 14, 1858	XVIII.
22062	Campbell, R. A	Hay fed to stock, device for saving the seed from	Nov. 16, 1858	I.
	Campbell, William, John M. Smith, *et al.* (See Weatherhead & Henry, assignors.)			
20548	Came, J. E., and L. Haven	Billiard-tables, pocket-supporters for	June 15, 1858	XXII.
22263	Came, John E., assignor to himself and James E. Came.	Billiard-table cushion	Dec. 7, 1858	XXII.
19346	Camp, Herman	Boats, propelling canal	Feb. 16, 1858	VII.
22346	Camp, M. M	Propeller for life-boats	Dec. 21, 1858	VII.
20018	Cannon, Francis A., assignor to John Phillips	Smoothing and polishing irons	April 20, 1858	XVII.
21409	Cannon, John R	Chairs, cane-seats for	Sept. 9, 1858	XVII.
20467	Carey, A. C., assignor to himself and A. B. Ely	Planters, corn	June 1, 1858	I.
21815	Carey, Augustus C	Carpet-sweepers	Oct. 19, 1858	XVII.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21485	Carey, Joseph C	Lantern attachment to caps	Sept. 14, 1858	V.
19491	Carhart, Peter S	Fence, field	Mar. 2, 1858	IX.
21549	Carhart, Peter S	Fence, portable field	Sept. 21, 1858	IX.
20759	Carhart, S., & W. Moore, assignors to themselves and J. H. McWilliams.	Fastener, sash	June 29, 1858	II.
19484	Carley, Benjamin	Valves, steam, eccentric for operating	Mar. 2, 1858	VI.
19619	Carlisle, Charles, and Leonard Worcester	Planing blind slats, machine for	Mar. 16, 1858	XIV.
	Carlton, S. A., *et al.* (See Byam & Parkhurst, assignors.			
19236	Carnell, Charles	Brick-machines	Feb. 2, 1858	XV.
	Carpenter, C., jr., and E. Shaw. (See Shaw & Carpenter, assignors.)			
20324	Carpenter, Daniel H	Lamp burners, vapor	May 25, 1858	V.
21651	Carpenter, J. D. C	Saws, circular, deflecting plates of	Oct. 5, 1858	XIV.
20990	Carpenter, L	Sewing-machines	July 27, 1858	III.
	Carpenter, Luman, & D. Whecler. (See Wheeler & Carpenter.)			
19132	Carpenter, S. D	Electro-magnetic batteries to car-brakes, application of.	Jan. 19, 1858	VIII.
20252	Carpenter, Samuel	Time-keepers, escapement for	May 18, 1858	VIII.
20141	Carpenter, T	Nails, horse-shoe, machine for making	May 4, 1858	II.
20480	Carpenter, W. B.	Ornaments to the car, mode of attaching	June 8, 1858	XVIII.
	Carr, Condit, Swift, Barnum, & Burr. (See Frost & Monroe, assignors.)			
19013	Carr, William S	Cocks, supply	Jan. 5, 1858	XI.
20142	Carr, William S	Closet, water.	May 4, 1858	IX.
20550	Carr, William S	Basins, water-closet, attachment of pipes to	June 15, 1858	XVII.
	Carrier, C. (See Crozier & Carrier.)			
20863	Carrier, J. P	Chair, rocking.	July 13, 1858	XVII.
21739	Carrington, C. H. & S. E	Cultivator	Oct. 12, 1858	I.
19485	Carter, Henry	Bolt-machine.	March 2, 1858	II.
	Carver, Eleazor.	Gins, cotton	Dec. 27, 1858	Extension.

	Carver, Phelps, & Lown. (See Richmond & Pittock, assignors.)			
623	Case, Jarvis	Planter, seed	Nov. 16, 1858	Reissue.
22228	Case, Jarvis, assignor to himself and William Baldwin.	Planters, seed	Dec, 7, 1858	I.
	Case, Philip. (See Whitney, Chauncy B., assignor.)			
20622	Case, S. C	Car-seats and berths, railroad	June 22, 1858	X.
19911	Cassell, Henry	Washing-machine	April 13, 1858	XVII.
20698	Casselli, Giovani	Telepraph, pantographic	June 29, 1858	VIII.
551	Castle, O. L.	Arithmometer for adding	May 11, 1858	Reissue.
21941	Castle, O. L.	Arithmometer for addition	Nov. 2, 1858	VIII.
19070	Castle, S. P.	Stump-extractors	Jan. 12, 1858	IX.
19128	Cavett, Edwin P.	Sawing lumber, device for adjusting two circular saws to the same plane in.	Jan. 19, 1858	XIV.
20253	Cawthra, Joseph	Corn husker	May 18, 1858	I.
20404	Chadwick, W. P.	Mantle-bar	June 1, 1858	V.
21942	Chadwick, William, and S. J. B. Anderson	Railroad ditching-machine	Nov. 2, 1858	IX.
20325	Chafee, V. M.	Harrow	May 25, 1858	I.
19347	Chaffee, Edwin M	Mat, door, India rubber	Feb. 16, 1858	XVII.
21793	Chaffee, S. B., for himself and as administrator of S. M. Chaffee.	Looms for weaving hair-cloth	Oct. 12, 1858	III.
	Challiner, David. (See Reighard, Jacob H., assignor.)			
	Chalmers, Gates, & Fraser. (See Gates, Fraser, & Chalmers.)			
19543	Chamberlin, C. A.	Mining coal, &c., machine for	March 9, 1858	IX.
21817	Chandler, J.	Iron, sheet, manufacture of	Oct. 19, 1858	II.
19620	Chandler, T. A.	Plane, joiners' bevelling	March 16, 1858	XIV.
20036	Chapin, P	Screws, machine for cutting	April 27, 1858	II.
22108	Chapman, H. E.	Leather, machine for splitting	Nov. 23, 1858	XVI.
22229	Chapman, Henry E.	Car-brakes, railroad	Dec. 7, 1858	X.
21065	Chapman, J.	Motion, converting reciprocating into rotary	Aug. 3, 1858	XIII.
	Chapman, J. E. (See Reed & Chapman.)			
22470	Chapman, Joseph L., assignor to himself and George Chapman.	Buckle, turn, for window blinds	Dec. 28, 1858	II.
19238	Chapman, M.	Bread-cutter	Feb. 2, 1858	XVII.
19071	Chapman, Nathan	Press, cotton	Jan. 12, 1858	XII.
	Chapman, R. (See Huggins & Chapman.)			

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19748	Chapman, W. Z. W	Paper-files	March 30, 1858	XVIII.
20143	Charlton, James	Planters, seed	May 4, 1858	I.
20405	Charter, O	Fastener, sash	June 1, 1858	II.
	Chase & Fuller. (See Willis, N. J., assignor.)			
	Chase, North, & North. (See North, Gibson, assignor.)			
	Chase, North, & North. (See Smith & Brown, assignors.)			
	Chase, Samuel F. (See Boyd, Amos H., assignor.)			
22015	Chase, Thomas G	Paper and other fabrics incorrodible, rendering	Nov. 9, 1858	IV.
21596	Cheever, John H	Belting-machine	Sept. 28, 1858	XIII.
19749	Chenoweth, George E	Harvesters	March 30, 1858	I.
	Chepey, Charles. (See Demeure, Pierre.)			
20057	Chesbro, Gilbert H	Cloth, elastic, device for turning down the edges of.	April 27, 1858	III.
19681	Chesley, P. H	Meat-choppers	March 23, 1858	XVII.
20917	Chester, J. H., assignor to M. A. Chester	Heating buildings, &c., by combustion of gas or alcohol radiator for.	July 13, 1858	V.
21818	Chestnut, Benjamin	Clothes lines, post for	Oct. 19, 1858	XVI.
	Cheviron, Auguste. (See Malbert & Cheviron.)			
19324	Chichester, Lewis J., assignor to Henry G. Evans, Samuel Barstow, and David L. Wintringham.	Cotton gin	Feb. 9, 1858	III.
21795	Chichester, Lewis, assignor to Henry G. Evans	Gins, cotton	Oct. 12, 1858	III.
19981	Chichester, Samuel	Pump and gasometer, compound air	April 20, 1858	XI.
21719	Chilcott, J., and James Scrimgeour, assignors to themselves and George F. Taylor.	Aquaria, construction of	Oct. 5, 1858	XXII.
	Child, Brokaw, & Warder. (See Brokaw, John W., assignor.)			
	Child, Brokaw, & Warder. (See Harding, Thomas, assignor.			
19683	Child, John	Furnace, hot-air	March 23, 1858	V.
19486	Childs, Willis L	Harvester	March 2, 1858	I.

22347	Chorman, E. G	Ellipsograph	Dec. 21, 1858	VIII.
21408	Christian, T	Window-blinds, operating	Sept. 7, 1858	IX.
19488	Christian, Theodore	Window-blinds, operating	Mar. 2, 1858	IX.
20623	Christman, T. F	Raising marl, dirt, &c., machine for	June 22, 1858	XII.
19014	Church, A. C	Paint vehicles	Jan. 5, 1858	IV.
22109	Churchman, W. H	Heating and ventilating buildings, apparatus for	Nov. 23, 1858	V.
21816	Clampitt, Elias	Lubricator	Oct. 19, 1858	XII.
21550	Clapp, M. R	Pump, rotary	Sept. 21, 1858	XI.
19912	Clapp, Perez C	Boot-tops, circular, machine for trimming the edges of.	April 13, 1858	XVI.
19829	Clare, N., and J. Quigley	Augers, &c., method of attaching expansible cutting-lips to.	April 6, 1858	XIV.
	Clark, Lindsey, & Moore. (See Moore, Clark, & Lindsey.)			
	Clark, Shaw, & Giveen. (See Shaw, Clark, & Giveen.)			
	Clark & Singer. (See Morey & Johnsons, assignors.)			
19621	Clark, Abner	Boilers, steam	Mar. 16, 1858	VI.
	Clark, Alvan, & Sons. (See Vander Woerd, Chas., assignor.)			
20326	Clark, C. L	Hygrometers, device for actuating the index in	May 25, 1858	VIII.
19622	Clark, Charles B	Vise	Mar. 16, 1858	II.
21245	Clark, Charles D	Grain, cooling and ventilating, apparatus for	Aug. 24, 1858	V.
19015	Clark, D. W	Sewing-machines	Jan. 5, 1858	III.
19072	Clark, D. W	Sewing-machines	Jan. 12, 1858	III.
19529	Clark, D. W	Sewing-machines	Jan. 19, 1858	III.
19409	Clark, D. W	Sewing-machines	Feb. 23, 1858	III.
20481	Clark, D. W	Sewing-machines	June 8, 1858	III.
21322	Clark, D. W	Sewing-machines	Aug. 31, 1858	III.
19732	Clark, D. W., assignor to H. L. Clark	Sewing-machines	Mar. 23, 1858	III.
19016	Clark, Edwin	Mills, flouring	Jan. 5, 1858	XIII.
20329	Clark, Edwin	Mill, flouring	May 25, 1858	XIII.
21796	Clark, Edward, assignor to W. H. Dolson	Cans for preserving paint, &c	Oct. 12, 1858	II.
1058	Clark, Ezra, assignor to Seth Clark	Tablets, cast metal	Oct. 26, 1858	Design.
19623	Clark, Gardner G	Rolls, calender	Mar. 16, 1858	III.
	Clark, James. (See Shaw & Clark.)			
	Clark, James J. (See Francis, Jerome B., assignor.)			
22063	Clark, James J	Forceps, tooth, mode of connecting electro-magnetic apparatus with.	Nov. 16, 1858	XX.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20327	Clark, James M	Mills, flouring	May 25, 1858	XIII.
21819	Clark, John L	Water-coolers, arrangement of means for making tight joints around the faucets of.	Oct. 19, 1858	XVII.
22276	Clark, John S	Stoves	Dec. 14, 1858	V.
	Clark, John S., and Washington Harris. (See Beesley, J., assignor.)			
22277	Clark, John S., and Washington Harris	Stoves	Dec. 14, 1858	V.
21820	Clark, Josiah P	Hammers	Oct. 19, 1858	II.
20328	Clark, P. C	Paddle, reciprocating	May 25, 1858	VII.
	Clark, W. A. (See Heaton & Clark.)			
20192	Clark, W. A	Bits, expansive, method of securing the movable cutter in.	May 11, 1858	XIV.
21597	Clark, W. A	Bit, expansive	Sept. 28, 1858	XIV.
19544	Clark, William	Bedstead-fastening	Mar. 9, 1858	XVII.
20039	Clarkson, W. W	Printing-press, card	April 27, 1858	XVIII.
	Clary, William C., and William Hawkins. (See Hawkins & Clary.)			
22348	Claude, E	Fire-arm, breech-loading revolving	Dec. 21, 1858	XIX.
22349	Clawson, Henry T	Cruet, pepper	Dec. 21, 1858	XVII.
20624	Clay, George E	Lever power, mode of applying	June 22, 1858	XII.
22350	Clay, Henry T	Shingles	Dec. 21, 1858	XIV.
20193	Clay, R. J	Planters, corn	May 11, 1858	I.
994	Clayton, Charles H	Press stand, copying	Mar. 23, 1858	Design.
20482	Clement, E. B	Washing-machine	June 8, 1858	XVII.
22100	Clemons, Andrew B., assignor to Birmingham Iron Foundry Company.	Braiding-machine	Nov. 16, 1858	III.
20330	Clemson, W	Saws, machinery for grinding	May 25, 1858	II.
19017	Cleveland, O	Knives, plated table, bolster for	Jan. 5, 1858	II.
19893	Clime, J. C., assignor to himself and S. Rhodes	Saws, reciprocating scroll, method of grinding	April 6, 1858	XIV.
20038	Clinger, P. S., and C. Cremer	Straw and stalk cutters	April 27, 1858	I.
21466	Clinton, Miles L, assignor to H. F. Hibbard	Sewing-machines	Sept. 7, 1858	III.
19751	Clokey, John E	Blinds, outside, opening and closing	Mar. 30, 1858	II.

	Clothier, C. F. (See Heidrick, F., assignor.)			
19830	Cloud, W. H., A. L. Hatfield, and C. H. Burdick	Bags, clasp for fastening	April 6, 1858	XII.
19750	Clough, William	Lubricator for railroad axles	Mar. 30, 1858	XII.
	Clow, James B., and John Best. (See McMurtry, John, assignor.)			
22163	Clute, Nicholas	Harvesters	Dec. 1, 1858	I.
19684	Coates, Fayette S	Sewing-machines	Mar. 23, 1858	III.
19686	Coates, S	Gas-generators, method of cleansing	Mar. 23, 1858	IV.
	Cobb, E. G., and S. E. Pettee. (See Pettee & Cobb.)			
20777	Cobb, Z	Railroad-car seats and berths	July 6, 1858	X.
19685	Cochran, John W	Tunnels, metallic, mode of connecting the sections of.	Mar. 23, 1858	IX.
20331	Cochran, John W	Lubricating car-axles	May 25, 1858	XII.
20406	Cochran, John W	Lubricating car-axles	June 1, 1858	XII.
21652	Cochran, J. W	Axles, car, lubricating	Oct. 5, 1858	X.
21943	Cochran, John W	Axle-boxes, car	Nov. 2, 1858	X.
22412	Cochran, John W	Fire-arm, revolving	Dec. 28, 1858	XIX.
22103	Cochrane, John	Rails for railroads	Nov. 16, 1858	IX.
19831	Cockburn, John	Pen and pencil cases	April 6, 1858	XVIII.
21598	Cockley, D	Ploughs	Sept. 28, 1858	I.
19489	Coe, Orman	Harrows	Mar. 2, 1858	I.
20407	Coes, A. J	Pipe-tong	June 1, 1858	II.
	Coffeen, M. (See Angel & Coffeen.)			
	Coffin, Hay, & Wilmarth. (See Wilmarth, Hay, & Coffin.)			
537	Coffin, Isaac N	Lamps, lard	Mar. 16, 1858	Reissue.
22413	Coffinbury, Wright L	Clocks, compensating pendulum for	Dec. 29, 1858	VIII.
20194	Cogswell, Henry	Buttons, sleeve, fastening for	May 11, 1858	XXI.
19018	Cohen, Emil	Husking and shelling glove	Jan. 5, 1858	I.
19110	Colburn, George S., assignor to Cyrus Wakefield	Ratan machines, device for retaining in proper position the splitting-knife in.	Jan. 12, 1858	XIV.
21740	Colby, George J	Willow, machine for peeling Husking and shelling-glove	Oct. 12, 1858	XXII.
19624	Cole, Almira M	Lenses, fluid, mounting	Mar. 16, 1858	XXIII.
	Cole, E. E	Saws, circular, method of applying, for cutting off piles under water.	Sept. 6, 1858	Extension.
19752	Cole, R. H	Screw-cutting-machine	Mar. 30, 1858	II.
20043	Cole, R. H	Washers, machine for making	April 27, 1858	II.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20145	Cole, R. H.	Nut-machine	May 4, 1858	II.
21551	Cole, R. H.	Nut-machine	Sept. 21, 1858	II.
21599	Cole, R. H.	Nut-blanks, making	Sept. 28, 1858	II.
21653	Cole, Samuel W.	Washing-machine	Oct. 5, 1858	XVII.
22164	Coleman, J. M.	Valves of steam-engines, cut-off	Dec. 1, 1858	VI.
	Coleman, John. (See Musser & Coleman.)			
19074	Collender, H. W.	Billiard-tables, cushions for	Jan. 12, 1858	XXII.
22064	Collender, H. W.	Billiard-table	Nov. 16, 1858	XXII.
	Collender, H W. (See Phelan, Michael, assignor.)			
185	Coller, Isaac H.	File-cutting machine	Jan. 12, 1858	Add'l imp't.
20255	Collier, H. M., and H. N. Baker	Lamp, electric	Mar 18, 1858	V.
20769	Collier, Henry M.	Car-brakes, railroad	June 29, 1858	X.
	Collins, Charles, *et al.* (See Wyllys, Newell, assignor.)			
19605	Collins, D., assignor to himself and W. L. Hanford.	Mills, hulling, dress of stone for	Mar. 9, 1858	XIII.
21165	Collins, J. J. G., assignor to Collins, Rhodes, & Drake.	Engines, steam	Aug. 10, 1858	VI.
19492	Collins, O. K.	Moulding for sash, machine for cutting	Mar. 2, 1858	XIV.
20144	Colt, Samuel	Fire-arm, revolving	May 4, 1858	XIX.
20332	Colton, A.	Propeller-valve	May 25, 1858	VII.
20935	Colton, G. D.	Ploughs	July 20, 1858	I.
19073	Colvin, Stephen O.	Looms, power, let-off motion of	Jan. 12, 1858	III.
19019	Comfort, Samuel, jr.	Harvesters, rakes for	Jan. 5, 1858	I.
20699	Comfort, Samuel, jr.	Sewing-machine	June 29, 1858	III.
22050	Comfort, Samuel, jr., assignor to himself and Francis Jackson.	Sewing-machine	Nov. 9, 1858	III.
	Comstock, Higbie, & Link. (See King, John, assignor.)			
22016	Comstock, George R.	Propellers	Nov. 9, 1858	VII.
21654	Conant, W. C.	Carpet-stretcher	Oct. 5, 1858	XVII.

	Condit, Carr, Swift, Barnum, & Burr. (See Frost & Monroe, assignors.)			
20195	Conkey, J. C	Harrows	May 11, 1858	I.
20334	Conklin, I. H	Harvesters	May 25, 1858	I.
19020	Conklin, Isaac H	Seeding-machines	Jan. 5, 1858	I.
20408	Conklin, J. L., sr., and J. Froust	Washing-machine	June 1, 1858	XVII.
21323	Conklin, S., and G. Newton	Seeding-machines	Aug. 31, 1858	I.
21534	Conkling, Gurdon, assignor to W. T. Conkling	Vessels, mode of launching	Sept. 14, 1858	VII.
19670	Conkling, Nathaniel	Ore, machine for crushing	Mar. 16, 1858	II.
	Connel, J. M., *et al.* (See Lawrence, H., assignor.)			
19021	Connel, James M	Car-coupling, railroad	Jan. 5, 1858	X.
19075	Connel, James M. and John	Blacking boots, shoes, &c., machine for	Jan. 12, 1858	XVII.
20040	Conner, Eli T	Railroad crossings, frogs for	April 27, 1858	IX.
1009	Conner, James	Types, a font of	June 1, 1858	Design.
1020	Conner, James	Types	July 6, 1858	Design.
1021	Conner, James	Types, printers'	July 6, 1858	Design.
1022	Conner, James	Types, printers'	July 6, 1858	Design.
1064	Conner, James	Types, script	Nov. 16, 1858	Design.
19982	Conroy, Edward	Cutters, rotary, sharpening, device for	April 20, 1858	XIV.
21944	Conroy, Edward	Corks, machine for cutting	Nov. 2, 1858	XXII.
20631	Cook, D. M	Evaporating cane-juice, pans for	June 22, 1858	IV.
19490	Cook, Frederick	Bales, cotton, metallic ties for	Mar. 2, 1858	XII.
	Cooke, Benjamin F., *et al.* (See Mayall, Thomas, assignor.)			
21166	Cooke, James C	Hose-coupling	Dec. 1, 1858	XI.
	Cooke, James C., and L. B. Cooley. (See Cooley & Cooke.)			
22165	Cooley, Asahel	Pumps	Nov. 30, 1858	XI.
19625	Cooley, L. B., and James C. Cooke	Hose, textile, manufacture of	Mar. 16, 1858	III.
595	Cooley, L. B., and James C. Cooke, assignors to L. B. Cooley, S. Babcock, and James C. Cooke.	Hose, textile, manufacture of	Aug. 31, 1858	Reissue.
	Coontz, Charles W., and William H. May. (See May & Coontz.)			
20700	Cooper, G. W	Tire, upsetting	June 29, 1858	II.
22167	Cooper, George	Turning hubs, arrangement of cutters for	Dec. 1, 1858	XIV.
21741	Cooper, George E	Harvesters	Oct. 12, 1858	I.
20625	Cooper, John H	Gas-regulators	June 22, 1858	IV.
21742	Cooper, William	Stone, machine for dressing	Oct. 12, 1858	XV.
19410	Coover, Jacob	Bed-bottoms, spring	Feb. 23, 1858	XVII.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21873	Cope, Ezra	Engines, steam-pumping	Oct. 26, 1858	VI.
19680	Cope, Ezra, and Isaac W. Bragg	Pumps, oscillating	Mar. 23, 1858	XI.
	Copeland, Charles W. (See How & Copeland.)			
	Copeland, Josiah, assignor to J. M. Reed, assignor to Josiah Copeland.	Boot-crimps	Jan. 11, 1858	Extension.
19833	Coppin, D. G	Planters, hand corn	April 6, 1858	I.
21923	Corbelli, Luigi Ferrari, and Vincent Riatti, assignors to C. F. Corbelli.	Aluminum, or calomel, manufacture of	Oct. 26, 1858	IV.
21922	Corbelli, Luigi Ferrari, and Vincent Riatti, assignors to C. F. Corbelli.	Aluminum, preparation of	Oct. 26, 1858	IV.
	Corbin, Lewis A., and Cyrus White. (See Puffer, Milton G., assignor.)			
20628	Corbin, R. B., and James Morris	Harvesters, corn	June 22, 1858	I.
	Cordis, Francis T., and William W. Wade. (See Wade & Cordis.)			
20333	Corey, A	Alarm-locks, burglars'	May 25, 1858	XXII.
21488	Corey, Alfred B	Warp dressing-guides	Sept. 14, 1858	III.
21487	Corey, Alfred B	Warp dresser-guides of glass or other plastic anti-corrosive material, moulds for making.	Sept. 14, 1858	III.
21486	Corey, J. W	Car-couplings, railroad	Sept. 14, 1858	X.
20626	Cornelius, R	Gas-burner	June 22, 1858	V.
19487	Cornell, Birdsall	Lathing, continuous metallic	July 2, 1858	IX.
	Cornell, J. B. & W. W., & Co. (See Cady, J. L., assignor.)			
19076	Cornell, John B	Hinge-eye for shutters	Jan. 12, 1858	II.
19348	Cornell, John B	Window-shutters, metallic	Feb. 16, 1858	IX.
19682	Cornell, John B	Ceiling, fire-proof	Mar. 23, 1858	IX.
20484	Cornell, John B	Steps, &c., admitting light and air through	June 8, 1858	IX.
20629	Cornell, John B	Lath, metallic	June 22, 1858	IX.
576	Cornell, John B	Lathing surface, continuous sheet metal	Aug. 3, 1858	Reissue.
21119	Cornell, John B	Safe-doors, safety-guard for	Aug. 10, 1858	V.
21118	Cornell, John B	Lath surface, metallic	Aug. 10, 1858	IX.

596	Cornell, John B	Pavement, side-walk	Sept. 7, 1858	Reissue.
20630	Cornell, W. W	Shutters, metallic rolling	June 22, 1858	IX.
19983	Cosby, R. M	Sawing-machine, cross-cut	April 20, 1858	XIV.
20627	Cotter, C. B	Car-couplings	June 22, 1858	X.
22351	Cotton, P. H	Cans, preserve	Dec. 21, 1858	XVII.
22414	Cotton, S. R	Printing-press	Dec. 28, 1858	XVIII.
21720	Cottrell, C. B., assignor to himself and Nathan Babcock.	Planing wood, machine for	Oct. 5, 1858	XIV.
20409	Cottrill, James	Sewing-needles	June 1, 1858	III.
19133	Coutie, William	Rope-machine	Jan. 19, 1858	III.
	Covell, E. H. (See Marsh, A., assignor.)			
21655	Covert, Henry W	Locks, cam for throwing bolt in	Oct. 5, 1858	II.
19753	Cowley, Asahel	Rake, horse hay	Mar. 30, 1858	I.
20041	Cox, C	Fire-arm, breech-loading	April 27, 1858	XIX.
19545	Cox, Hamilton J	Mills, sugar and cider	Mar. 9, 1858	XIII.
19832	Cox, O	Pocket-book, &c., method of securing	April 6, 1858	XXII.
20042	Cox, W. H	Trap, rat	April 27, 1858	XXII.
21945	Cox, William R	Grain-separators	Nov. 2, 1858	I.
22327	Cradit, Nathaniel, assignor to Chester G. Robinson.	Lamps	Dec. 14, 1858	V.
19349	Craine, George	Shingle-machine	Feb. 16, 1858	XIV.
20239	Cram, S. B., and C. Weed, assignors to S. B. Cram.	Steering-apparatus	May 11, 1858	VII.
19351	Crane, A. D	Clock, public	Feb. 16, 1858	VIII.
21743	Crane, Amazi	Streets, machine for sweeping	Oct. 12, 1858	XXII.
	Crane, E. (See Barnes, E., assignor.)			
19131	Crane, John E	Chain cable stoppers	Jan. 19, 1858	VII.
19130	Crane, S. G	Plane, crozing	Jan. 19, 1858	XIV.
604	Crary, James	Shingle-machine	Sept. 28, 1858	Reissue.
21186	Crary, J. W	Brick-machines	Aug. 17, 1858	XV.
20146	Crary, John W	Brick-kilns	May. 4, 1858	XV.
19077	Cravath, M. A	Ploughs, gang	Jan. 12, 1858	I.
19754	Crawford, D	Soap, manufacture of	Mar. 30, 1858	IX.
212	Crawford, Dalrymple	Soap, manufacture of	Dec. 14, 1858	Add'l imp't.
21552	Crawford, Peter S	Harvesters, raking-attachment for	Sept. 21, 1858	I.
20936	Crawshaw, J	Boots and shoes, machine for cutting out the soles of.	July 20, 1858	XVI.
22065	Crawshaw, John	Looms, power	Nov. 16, 1858	III.
21744	Creager, Jonathan	Shingle-machine, circular sawing	Oct. 12, 1858	XIV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19111	Creemer, John B., assignor to himself and S. Dwight Humphrey.	Safe, match	Jan. 12, 1858	V.
	Cremer, C. (See Clinger & Cremer.)			
20254	Creighton, J. B	Cars, railroad, for day and night service	May 18, 1858	X.
602	Creighton, J. B	Cars, railroad, for day and night service	Sept. 21, 1858	Reissue.
21600	Creighton, J. B	Cars, railroad, couches for	Sept. 28, 1858	X.
	Cresson, Stuart, & Peterson. (See Delany & Martino, assignors.)			
	Cridge, Wadsworth, & Co. (See Mackintosh & Wadsworth, assignors.)			
1059	Cridge, E. J	Stoves	Nov. 2, 1858	Design.
610	Croll, Alexander Angus	Gas-metres	Oct. 5, 1858	Reissue.
19546	Croley, Charles	Billiard-table tops or beds	Mar. 9, 1858	XXII.
19755	Croley, Charles	Billiard-table, folding	Mar. 30, 1858	XXII.
20044	Crompton, George	Looms	April 27, 1858	III.
639	Crompton, George	Looms for weaving figured fabrics	Dec. 28, 1858	Reissue.
	Cronk, James E., and James A. Disbrow. (See Disbrow and Cronk.			
20778	Cronk, M. C	Bottles, stoppers for	July 6, 1858	XXII.
548	Crook, Charles	Harvesters	May 4, 1858	Reissue.
19913	Crook, William	Mowing-machines	April 13, 1858	I.
19134	Crosby, Addison	Engines, steam, variable cut-off for	Jan. 19, 1858	VI.
21745	Crosby, Chauncy O	Sewing-machines	Oct. 12, 1858	III.
19287	Crosby, Robert R	Lamps, hydro-carbon vapor	Feb. 9, 1858	V.
533	Crossett, Isaac	Barrels and other casks, machinery for making	Mar. 2, 1858	Reissue.
	Crossett, Isaac	Barrels and other casks, machinery for making	June 29, 1858	Extension.
	Crossfield, K., *et al.* (See Ball, Thomas C., assignor.)			
19350	Crossman, C. P., and E. M. Quimby	Life-preserving mattress	Feb. 16, 1858	VII.
20937	Crossman, L., and S. Atkinson	Locomotive engines, fire boxes for	July 20, 1858	VI.
20864	Crozier, A. H	Barrel-heads, machinery for cutting	July 13, 1858	XIV.
21117	Crozier, A. H., and C. Carrier	Barrels, machinery for chamfering and crozing	Aug. 10, 1858	XIV.

21821	Cuckler, C. K	Collars, horse	Oct.	19, 1858	XVI.
21231	Culver, E., jr., assignor to himself and S. M. Blackwell.	Clothes-horse	Aug.	17, 1858	XVII.
	Culver, L (See Herrick, H. H., assignor.)				
22278	Culver, Stephen	Pots, tea and coffee	Dec.	14, 1858	XVII.
22352	Cumberland, John, and James R. McClintock	Buckles	Dec.	21, 1858	XVI.
20991	Cumming, D.	Axle boxes, &c	July	27, 1858	X.
21044	Cumming, D., jr., assignor to D. Cumming, sr.	Mangles	July	27, 1858	XVII.
20045	Cumming, David	Blowing apparatus	April	27, 1858	XI.
	Cummings, A. (See Storm, W. Mt , assignor.)				
20256	Cummings, Allan	Ballot-boxes	May	18, 1858	XXII.
20046	Cummings, G. N	Spectacle frames, joint for	April	27, 1858	VIII.
20468	Cummings, G. W., assignor to D. K. Jackman and Joseph Hanna.	Car-brakes, railroad	June	1, 1858	X.
20551	Cummings, L. L.	Presses, hay and cotton	June	15, 1858	XII.
20938	Cuppers, Gustavus	Rubber goods, hard, manufacture of	July	20, 1858	IV.
588	Cuppers, Gustavus	Rubber goods, hard, manufacture of	Aug.	24, 1858	Reissue.
	Currie, Steffie, & Horton, assignors. (See Steffie, Horton, & Currie.)				
20632	Currier, Charles	Button holes, implement for cutting	June	22, 1858	XXI.
19352	Currier, Thomas W	Chairs, rocking	Feb.	16, 1858	XVII.
19411	Curtis, George S.	Harvester	Feb.	23, 1858	I.
22279	Curtis, S. S	Excavator	Dec.	14, 1858	IX.
21553	Cushing, G. W	Roofing cement	Sept.	21, 1858	IX.
21656	Custer, J. D	Signal-machine, fog	Oct.	5, 1858	VIII.
20335	Custer, John	Water-wheel	May	25, 1858	XI.
20017	Cutts, J. S	Pen, fountain	Nov.	9, 1858	XVIII.
19626	Cutting, James A., and L. H. Bradford	Photolithography	Mar.	16, 1858	XVIII.
21120	Dabol, C. L	Brakes to hand trucks, applying	Aug.	10, 1858	IX.
20865	Daggett, H. N	Bustles and skirts	July	13, 1858	XXI.
20469	Daggett, W., assignor to A. B. Davis and W. H. Tolhurst.	Drill for gas-pipe	June	1, 1858	II.
19914	Dailey, Wm. F	Truss pads	April	13, 1858	XX.
19691	Dake, F. E , and J. W. Teal	Mills, hominy	Mar.	23, 1858	XIII.
20124	Dake, Frederick E., assignor to himself and Thomas E. Hunt.	Mill, sugar	April	27, 1858	XIII.
22066	Dalbey, Reuben M	Jars, sealing preserve	Nov.	16, 1858	XVII.
	Damon, E., sr., and Alonzo Warren. (See Warren & Damon.)				

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Dana, Edward A., *et al.* (See Schenke, John P., assignor.)			
20701	Daniel, P., deceased, John F. Dunnington, administrator.	Motive power, mode of obtaining	June 29, 1858	XIII.
19756	Daniels, Clinton	Composition for tanning leather	Mar. 30, 1858	IV.
21864	Daniels, G. W., assignor to himself and A. Fuller	Screws from wire, lathe for cutting	Oct. 19, 1858	II.
22353	Dannoy, Felix	Furnaces, bagasse	Dec. 21, 1858	V.
21121	Danowsky, W. F	Gas, apparatus for purifying	Aug. 10, 1858	IV.
21489	Danvers, P.	Steam-hammer	Sept. 14, 1858	VI.
19239	Darby, George	Furnaces, hot-air	Feb. 2, 1858	V.
19136	Darby, George, and J. E Young	Shingle-machine	Jan. 19, 1858	XIV.
20842	Darker, William J., assignor to J. B. Thompson	Metre, water	July 6, 1858	XI.
20147	Darling, J	Sawing cross-cut, feeding device for	May 4, 1858	XIV.
20257	Darling, J	Horse-power	May 18, 1858	XIII.
21554	Darling, Samuel	Inkstand	Sept. 21, 1858	XVIII.
	Daul, Anton, and Leopold Lankan. (See Henn, J., assignor)			
19547	Davenport, Abner B	Meat-cutter	Mar. 9, 1858	XVII.
21657	David, Henry R	Paper bags, &c., knives to cut	Oct. 5, 1858	XVIII.
22018	Davidson, C. H	Lacteal instruments	Nov. 9, 1858	XX.
20866	Davies, George	Tool for cutting cylindrical or tapering sticks	July 13, 1858	XIV.
	Davis & Henderson. (See Ball, Thomas, assignor.)			
	Davis, Sackett, & Co. (See Lancelott, J., assignor.)			
	Davis, A. S., *et al.* (See Ball, Thomas C., assignor.)			
21246	Davis, Abram	Roofing-compositions	Aug. 24, 1858	IX.
19915	Davis, A. B	Corn-sheller	April 13, 1858	I.
	Davis, A. B , and W. H. Tolhurst. (See Daggett, W., assignor.)			

19325	Davis, Abbot R., assignor to himself and B. D. Moody.	Corn-husker	Feb. 9, 1858	I.
21324	Davis, Anthony G	Sun-shades	Aug. 31, 1858	XXI.
	Davis, Edward M. (See Mason & Davis.)			
22019	Davis, Elijah D	Aquarium	Nov. 9, 1858	XXII.
	Davis, G. N., *et al.* (See Mayal, Thomas J., assignor.)			
	Davis, G., and P. Mihan. (See Mihan, P., assignor.)			
19758	Davis, G. W	Printing-press	Mar. 30, 1858	XVIII.
	Davis, Gilman, *et al.* (See Mihan, Patrick, assignor.)			
	Davis, James F., *et al.* (See, Averill, Damon R., assignor.)			
20410	Davis, John S	Harrow	June 1, 1858	I.
21187	Davis, John S	Planter, corn	Aug. 17, 1858	I.
22003	Davis, Joseph H	Mechanical movement	Nov. 2, 1858	XIII.
	Davis, L. H., and D. W. Entrikin. (See Entrikin & Davis)			
	Davis, Lewis H., and Thomas W. McFarlan. (See McFarlan & Davis.)			
	Davis, Solon M., *et al.* (See Jones, Amos, assignor.)			
21822	Davis, T. J., and J. B. Warner	Lifting heavy weights, machinery for	Oct. 19, 1858	XII.
	Davis, Thomas W., *et al.* (See Rohr, D. E., assignor.)			
19757	Davis, William M	Steam-trap, balance	Mar. 30, 1858	VI.
19240	Dawes, Rufus	Stove	Feb. 2, 1858	V.
21823	Dawes, Rufus	Hammer-heads	Oct. 19, 1858	II.
21490	Day, A	Shingle-machine	Sept. 14, 1858	XIV.
21122	Day, A. G	Caoutchouc, treatment of	Aug. 10, 1858	IV.
620	Day, Austin G	Caoutchouc, treatment of	Nov. 9, 1858	Reissue.
	Day, Horace H. (See Solis, Richard, assignor.)			
20485	Dayton, H. G	Cans, preserve	June 8, 1858	XVII.
22354	De Charms, Richard	Carpet-fastener	Dec. 21, 1858	XVII.
19022	De Charms, Richard	Hydrant	Jan 5, 1858	XI.
22020	Decker, Levi	Billiard-table, cushion for	Nov. 9, 1858	XXII.
21555	Decrow, A. W	Alarm, burglar's	Sept. 21, 1858	XXII.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19548	Dederick, Levi	Journal boxes of connecting rods or pitmen, mode of lightning or securing the keys of.	Mar. 9, 1858	X.
21491	Defenbaugh, A	Plough, mole	Sept. 14, 1858	IX.
	Degener, F. O. (See Gordon and Degener.)			
19627	De Golyer, William T	Roofing cement	Mar. 16, 1858	IX.
20148	De Hart, A. M	Car-springs, railroad	May 4, 1858	X.
20048	Deiss, Edouard	Process for extracting fatty matters	April 27, 1858	IV.
20047	Deiss, Edouard	Carbon, sulphuret of, apparatus for manufacturing	April 27, 1858	IV.
21045	Delahanty, J. P., assignor to himself and E. S. Ells, and E. S. Ells assignor to Clark Tompkins.	Knitting-machine	July 27, 1858	III.
22021	Delano, T. A.	Life-preserving vests	Nov. 9, 1858	VII.
987	Delany, E. J., and John Martino, assignors to Cresson, Steuart, and Peterson.	Stove plates	Feb. 16, 1858	Design.
1010	Delany, E. J., and J. Martino, assignors to W. P. Cresson, D Steuart, and R Peterson.	Stoves, cook's	June 1, 1858	Design.
1026	Delany, E. J., assignor to H. E. March and J. Johnson.	Stoves, cook's	July 13, 1858	Design.
19184	Delany, Matthew	Dyeing yarns in the skein, apparatus for	Jan. 26, 1858	IV.
20019	Demeure, Pierre, assignor to Charles Chepy	Meat-cutters	April 20, 1858	XVII.
	Deming, James H. (See De Mirimonde, Leon Joseph Pomme, assignor to James H. Deming.)			
19237	De Mirimonde, L. J. P.	Journals of axles on railways, reducing the friction of.	Feb. 2, 1858	IX.
627	De Mirimonde, Leon Joseph Pomme, assignor to James H Deming.	Journals of axles on railways, reducing the friction of.	Nov. 23, 1858	Reissue.
19078	Dempsey, Thomas	Harness-trees	Jan. 12, 1858	XVI.
19495	Denham, Thomas, and Joseph W. Briggs	Alarm, sash-balance	Mar. 2, 1858	XXII.
	Denio, Aaron, and Norman S. White. (See White and Denio.)			
21066	Denley, J., and T. H. Heberling	Coffee, apparatus for making	Aug. 3, 1858	XVII.
19079	Denman, Jacob S	Car-seats, railroad	Jan. 12, 1858	X.

	Denn, Charles S., and Powell Griscom. (See Griscom and Denn.)				
21601	Denney, Samuel L.	Mills, sugar	Sept.	28, 1858	XIII.
19628	Denney, William	Lock	Mar.	16, 1858	II.
19412	Dennis, Paul	Plough-shovel	Feb.	23, 1858	I.
19496	Dennis, Samuel, jr.	Plough, hill-side	Mar.	2, 1858	I.
19493	Dennison, John N., and Thomas Sealy	Boilers, apparatus for supplying water to	Mar.	2, 1858	VI.
20867	Dennison, John N.	Fire-engines, force-pump for	July	13, 1858	V.
22067	Deppen, G. B., and E. Levengood	Furnace for burning coal-dust	Nov.	16, 1858	V.
21947	Derby, Lyman	Lock, bank	Nov.	2, 1858	II.
19690	Dermond, Daniel	Yarn, roving or regulators for	Mar.	23, 1858	III.
20336	Derrick, William H.	Wind-wheels	May	25, 1858	XI.
20196	De Rush, John	Grain-cleaning machine	May	11, 1858	I.
22168	Detmold, Christian E	Railway-bars, mode of securing the ends of	Dec.	1, 1858	IX.
19984	Deuchfield, John	Meal, cooling and drying	April	20, 1858	XIII.
	Devereux, G. H. and A. F., *et al.* (See Morse and Hughes, assignors.)				
19666	De Veuve, Henry	Boats, arrangement of devices for lowering and detaching.	Mar.	16, 1858	VII.
20149	Devin, George W	Bolt, ring	May	4, 1858	II.
19185	Devlan, P. S	Gas-heating apparatus	Jan.	26, 1858	V.
21247	Devoye, Justin	Carpenter's work-bench	Aug.	24, 1858	XIV.
21325	Dewey, M., and J. Phillips	Carpet-fastener	Aug.	31, 1858	XVII.
21326	De Witt, John C.	Car-seats, railroad	Aug.	31, 1858	X.
21394	De Witt, John C., assignor to himself and T. Benedict.	Trace-fastening	Aug.	31, 1858	XVI.
	De Witt, Richard V., jr. (See Newbury, F. D., assignor)				
19494	De Witt, W., and O. D. Barrett	Harrow	Mar.	2, 1858	I.
20411	De Wolf, D. O.	Harvester, raking attachment to	June	1, 1858	I.
190	De Zeng, Henry L.	Bullet-mould	Feb.	16, 1858	Add'l imp't.
21067	Dick, James M	Railroad-frogs	Aug.	3, 1858	IX.
20992	Dick, John	Boot-fronts, method of cutting	July	27, 1858	XVI.
20552	Dickenhof, P	Fulling rice, machine for	June	15, 1858	I.
19288	Dickerman, C. S.	Cards for currying cattle	Feb.	9, 1858	I.
20939	Dickerman, Chauncey A	Heater, steam	July	20, 1858	V.
19688	Dickey, C.	Grinding, machine for cutting the leaves from the sugar-cane preparatory to.	Mar.	23, 1858	XIII.
19498	Dickey, Julius C.	Metals, shaping and punching	Mar.	2, 1858	II.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19497	Dickinson, C. W.	Jewelry, loop-chains for	Mar. 2, 1858	XVIII.
	Dickinson, William P. (See Francisco and Dickinson.)			
20663	Dickson, A.	Plough	June 22, 1858	I.
20412	Dickson, George L.	Carriage-brake	June 1, 1858	X.
21824	Dickson, John	Ploughs	Oct. 19, 1858	I.
19916	Dieffenbach, George	Teeth, bases for artificial	April 13, 1858	XX.
19499	Dietz, Andrew	Gate, farm	Mar. 2, 1858	IX.
19551	Diller, William	Lubricating the axle-boxes of carriage-wheels	Mar. 9, 1858	XII.
22110	Dillon, Jonathan	Time-keepers, method of regulating the winding of.	Nov. 23, 1858	VIII.
21556	Dimock, Ira	Silk or other thread, according to its size, machine for sorting.	Sept. 21, 1858	III.
20413	Dimock, Martial	Sewing-machines	June 1, 1858	III.
19135	Dimock, Martial, and Nathan Rixford	Sewing-machine	Jan. 19, 1858	III.
19241	Dimpfel, F. P.	Railroad track, mode of laying	Feb. 2, 1858	IX.
594	Dimpfel, F. P.	Boiler, steam	Aug. 31, 1858	Reissue.
22169	Dimpfel, F. P.	Boilers, steam, furnace for	Dec. 1, 1858	VI.
19689	Dinsmoor, O. R	Hay-cock protector	March 23, 1858	I.
20868	Dinsmoor, O. R	Clothes, drying apparatus	July 13, 1858	XVII.
19279	Disbrow, James A., and James E. Cronk, assignors to J. A. Disbrow.	Presses, cotton	Feb. 2, 1858	XII.
22068	Diss, L.	Lock, safe	Nov. 16, 1858	II.
	Disston, H. (See Smith, H., assignor.)			
20337	Disston, H., and T. L. Morse	Saws, hand, bevelling device attached to	May 25, 1858	XIV.
	Disston, H., & Co. (See Johnson, Josea.)			
22111	Dixon, Benjamin E	Tuyere, blacksmiths'	Nov. 23, 1858	II.
21948	Dixon, Joseph	Steel, manufacturing	Nov. 2, 1858	II.
	Doane, A. S., *et al.* (See Hill, Sam. L., assignor.)			
20995	Doane, W. H., and C. Mason	Sawing-machine	July 27, 1858	XIV.
21658	Dodge, Charles C	Switch, railroad	Oct. 5, 1858	IX.
21327	Dodge, E. J	Tire, upsetting carriage	Aug. 31, 1858	II.

21746	Dodge, James	Knives, grinding and polishing	Oct. 12, 1858	XVII.
20940	Doen, E	Bolt, spring	July 20, 1858	II.
20338	Doen, Edward	Spring, window	May 25, 1858	II.
20258	Dole, L. A	Meat-choppers	May 18, 1858	XVII.
20779	Dole, L. A	Boring-machine	July 6, 1858	XIV.
	Dolson, W. H. (See Clark, Edward, assignor.)			
22069	Donaldson, C	Vault-light	Nov. 16, 1858	IX.
19629	Donehoo, Daniel M	Separator and smut-machine	March 16, 1858	XIII.
20994	Donovan, Cornelius	Sewing-machines	July 27, 1858	III.
20049	Donovan, J. T., and W. J. Fowler	Planters, cotton seed	April 27, 1858	I.
21248	Doolittle, A. J	Quartz-crusher	Aug. 24, 1858	II.
19186	Doolittle, George W	Car-coupling, railroad	Jan. 26, 1858	X.
20780	Doolittle, Zina	Axles, carriage, machine for upsetting	July 6, 1858	II.
21638	Dorman, James A., and Joseph E. Stearns, assignors to James A. Dorman.	Blind operator	Sept. 28, 1858	II.
19917	Dorsch, Gideon	Car-brake, railroad	April 13, 1858	X.
21046	Dorsch, M. P., assignor to Peter Dorsch	Stove for burning soft coal	July 27, 1858	V.
19550	Dorsey, Edward L	Wagon-tires, machine for fitting	March 9, 1858	X.
20993	D'Orsey, J. S	Paints	July 27, 1858	IV.
19549	Doss, William C	Planters, seed	March 9, 1858	I.
	Dougherty, H. F., *et al.* (See Ingersoll, P. C., assignor.)			
19080	Douglas, Alexander	Sewing-machines	Jan. 12, 1858	III.
21659	Douglas, Alexander	Folding guides	Oct. 5, 1858	III.
22355	Douglas, A., and S S. Sherwood	Skirt hoops, slide and fastening for	Dec. 21, 1858	XXI.
21747	Douglas, Alexander, and Samuel S. Sherwood	Skirt hoops, fastenings for	Oct. 12, 1858	XXI.
22112	Douglas, Charles	Chimney caps	Nov. 23, 1858	V.
22170	Douglas, Frank	Steam trap	Dec. 1, 1858	VI.
19834	Douglas, W. and B	Pump, portable	April 6, 1858	XI.
	Downing, H. (See Sutton, J. L., assignor.)			
19759	Doyle, George	Galvanic batteries, device for preventing corrosion of the binding screws in.	March 30, 1858	VIII.
21949	Doyle, George	Harpoon	Nov. 2, 1858	VII.
	Drake, Rhodes, and Collins. (See Collins, J. J. G., assignor.)			
20553	Drake, E	Shingle-machine, device in feed motion of	June 15, 1858	XIV.
19242	Drake, N	Planter, corn	Feb. 2, 1858	I.
205	Drake, Nathaniel	Planters, corn	Sept. 28. 1858	Add. imp't.
634	Drake, Nathaniel	Planters, corn	Dec. 14, 1858	Reissue.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Draper, E. D. & G., *et al.* (See Houghton, A., assignor.)			
	Draper, F. (See Jenks & Draper.)			
	Drew, Henry Z. (See Forman, S. F., assignor.)			
21748	Dreyspring, Adolphe	Boxes, portable	Oct. 12, 1858	XVIII.
19081	Driggs, Spencer B	Piano-fortes	Jan. 12, 1858	XVIII.
19353	Drown, John	Fence, field	Feb. 16, 1858	IX.
20781	Drummond, W	Planter, corn	July 6, 1858	I.
22171	Drummond, Warren	Seeding-machine	Dec. 1. 1858	I.
20051	Du Bois, John	Gins, cotton	April 27, 1858	III.
19082	Du Bois, N. G	Bell-hanging	Jan. 12, 1858	XVII.
19413	Duchamp, Eugene	Presses, cotton	Feb. 23, 1858	XII.
	Dudley, J. Q. (See Marsh, A., assignor.)			
20259	Dudley, Joseph	Trunks, card-plates for	May 18, 1858	XVI.
20761	Dugdale, Thomas A., assignor to himself and John A. Burbank.	Sewing-machine	June 29, 1858	III.
22471	Dulaney, George L., assignor to himself and Solomon K. Moore.	Car-seats, railroad	Dec. 28, 1858	X.
	Dunklee, H., *et al.*.. (See Kelsea, H., assignor.)			
20634	Dunning, W. B	Shafting, coupling-box for	June 22. 1858	XIII.
19760	Dunning, William B	Staves, rotary, reciprocating knives for smoothing	March 30, 1858	XIV.
	Dunning, William B., E. E Lewis, and C. Wheat. (See Lewis, Dunning, & Wheat.)			
	Dunnington, John F., administrator. (See Daniel, P., deceased.			
19354	Dunworth, J. A. & F	Reins, horse, device for holding	Feb. 16, 1858	XVI.
20554	Durand, J. M	Watch-cases	June 15, 1858	VIII.
20414	Durden, Thomas	Bridges	June 1, 1858	IX.
	Durgin, C. A. (See Lapham & Burns, assignors.)			
567	Durgin, C. A	Sewing-machine	June 15, 1858	Reissue.
	Durgin, Silas C	Cloth, machinery for folding and measuring	March 4, 1858	Extension.
21558	Durell, Henry	Cigar-wrappers	Sept. 21, 1858	XXII.

	Durfee, Edwin C., *et al* (See Fairbank, John B., deceased)			
19289	Duryea, H. V	Mill, grinding	Feb. 9, 1858	XIII.
20050	Dutton, R	Harvester	April 27, 1858	I.
	Dyer, Owens, and Lane (See Owens, Lane, & Dyer.)			
22230	Dyott, M. B	Lamp, burner for	Dec. 7, 1858	V.
22415	Eagle, Francis M	Stump-extractor	Dec. 29, 1858	IX.
	Eagle Screw Company. (See Sloan, Thomas J., assignor.)			
22472	Eakins, Samuel, assignor to himself and M. S. Wickersham.	Blasting or removing submarine bodies, method of	Dec. 29, 1858	IX.
20197	Eames, L	Hub-machine	May 11, 1858	X.
19985	Earle, Charles H	Scales, platform	April 20, 1858	XII.
19058	Earle, John E., assignor to himself and Samuel Shepherd.	Dividers, mathematical	Jan. 5, 1858	VIII.
20033	Easterly, James	Stoves, cooking, ovens for	April 27, 1858	V.
21410	Easterly, James	Stoves, coal, grates for	Sept. 7, 1858	V.
21467	Easterly, James, assignor to himself and Dennis G. Littlefield.	Stoves, cooking, flues of elevated oven	Sept. 7, 1858	V.
19918	Eaton, James	Cop-tubes	April 13, 1858	II.
21068	Eaton, James	Shuttles, cop-tubes for	Aug. 3, 1858	III.
21825	Eaton, John	Propeller, marine	Oct. 19, 1858	VII.
	Eaton, Joseph, administrator. (See Paine, Chas. F., deceased.)			
	Eddy, George W. (See Vedder, N. S , assignor.)			
21294	Edelman, Isaac, assignor to G. W. Edelman, jr	Water-closet	Aug. 24, 1858	IX.
22280	Edge, William	Brake, railroad	Dec. 14, 1858	IX.
21660	Edson, Jacob	Carpet-sweeper	Oct. 5, 1858	XVII.
20869	Edson, N. T	Carriage-wheels, metallic hub for	July 13, 1858	X.
19243	Edson, Nathaniel T	Wheelwrights' machine	Feb. 2, 1858	XIV.
	Edwards, Edward, *et al.* (See Ball, Thomas C., assignor.)			
20702	Edwards, G	Rolling railway bars	June 29, 1858	II.
	Edwards, John S. (See Holly, B., assignor.)			
22416	Edwards, Nelson	Stoves	Dec. 29, 1858	V.
	Egnor, Joel, and H. Van Steenbergh. (See Van Steenbergh & Egnor.)			
21826	Ehrhart, H	Paddle-wheel	Oct. 19, 1858	VII.
21874	Eiberweiser, John	Mill, cider	Oct. 26, 1858	XIII.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19187	Eisenbrandt, C. H	Musical wind instrument	Jan. 26, 1858	XVIII.
20339	Eisenbrandt, C. H	Car-brake, railroad	May 25, 1858	X.
21875	Eiswald, T. G	Washing-machine	Oct. 26, 1858	XVII.
	Eldred, David, *et al.* (See Markham & Eldred.)			
20198	Eliaers, A	Chair, reclining	May 11, 1858	XVII.
20976	Ellig, L., assignor to Andrew Garrett	Straw-shaker	July 20, 1858	I.
	Elliot & Moore. (See Moore, T. W., assignor.)			
21123	Elliot, W. H	Bed-bottom	Aug. 10, 1858	XVII.
21188	Elliot, W. H	Fire-arm, revolving	Aug. 17, 1858	XIX.
21124	Elliot, William H	Hinges	Aug. 10, 1858	II.
	Elliott, J. G. (See Byrne & Elliott.)			
19986	Elliott, J. F	Locomotive engine, driving wheels of	April 20, 1858	VI.
	Ells, E. S. (See Delehanty, J. P., assignor.)			
	Ells, J. A. (See Pratt, George, assignor.)			
544	Ells, W. M. & J. M	Boilers, steam	April 13, 1858	Reissue.
21125	Ellsworth, M. E	Harvester	Aug. 10, 1858	I.
22113	Ellithorpe, A. C., and Ives, Scoville	Stones for ballasting railroads and turnpikes, machine for breaking.	Nov. 23, 1858	XV.
19245	Elmendorf, Joseph	Galvanic batteries, mode of attaching the electrodes to the poles of.	Feb. 2, 1858	VIII.
19244	Elmer, Hosea O	Saws, gumming and jointing	Feb. 2, 1858	II.
21189	Elmer, William	Pessaries	Aug. 17, 1858	XX.
	Elton, C. M., *et al.* (See Kendall & Keyes, assignors.)			
	Ely, Alfred B. (See Whipple, Milton D.)			
	Ely, Alfred B., *et al.* (See Cary, A. B., assignor.)			
	Ely, Charles. (See Harvey, Thomas W., assignor.)			
20703	Emeigh, A	Eels, apparatus for skinning	June 29, 1858	XXII.
	Emery, Francis F. (See Johnson, Albert F.)			
19137	Emmery, Ezra	Harvester	Jan. 19, 1858	I.
	Emrich, P., *et al.* (See Murrill, J., assignor.)			

	Ende, Julius. (See Schimmelfennig & Ende.)			
20260	Endsley, John, and E. Fletcher	Cultivator	May 18, 1858	I.
21126	England, Lewis C	Tanning hides, apparatus for	Aug. 10, 1858	XVI.
20052	English, N. F	Hatchet	April 27, 1858	II.
	Engmann, P. (See Featherstone, H., and P. Engmann.)			
19919	Entrikin, D. W., and L. H. Davis	Harvester	April 13, 1858	I.
19920	Entrikin, D. W., and L. H. Davis	Harvester, cutting device for	April 13, 1858	I.
20782	Ericsson, J	Engines, steam	July 6, 1858	VI.
22281	Ericsson, John	Air-engine	Dec. 14, 1858	XI.
20941	Erkson, G	Mill, grinding	July 20, 1858	XIII.
19835	Ernsberger, M	Saw-gummer	April 6, 1858	II.
1034	Erwin, Cornelius B	Door-lock plates	Aug. 10, 1858	Design.
1035	Erwin, Cornelius B	Door-lock plates.	Aug. 10, 1858	Design.
19761	Eshleman, J. J	Horse and cattle tie, self-loosening	Mar. 30, 1858	XXII.
22070	Essig, Bartholomew	Vegetable-cutter and coffee-mill combined	Nov. 16, 1858	XVII.
22114	Estes, Samuel	Looms, picker-staffs for	Nov. 23, 1858	III.
	Eustice, Thomas, and Joseph Jordan, jr. (See Jordan & Eustice.)			
19188	Evans, E. L	Curry-combs	Jan. 26, 1858	II.
	Evans, Henry G. (See Chichester, Lewis J., assignor.)			
	Evans, Henry G. (See Chichester, Lewis S., assignor.)			
20199	Evans, James W	Tobacco, pipes and cigar-holders or mouth-pieces for smoking	May 11, 1858	XXII.
21661	Evans, James W	Plough, steam	Oct. 5, 1858	I
21559	Evans, Joseph P	Coal, machine for washing	Sept. 21, 1858	V.
19692	Evarts, Harry H	Sawing staves, machine for	Mar. 23, 1858	XIV.
20843	Ewing, J., assignor to F. V. Rushton	Bottles, stopper for	July 6, 1858	XXII.
19552	Fagan, Joseph and James L	Corn-husker	Mar. 9, 1858	I.
20415	Fagan, M. G	Stove, wood-burning	June 1, 1858	V.
19762	Fahnestock, W. B	Axle-boxes	Mar. 30, 1858	X.
19763	Fahnestock, William B	Car-wheels	Mar. 30, 1858	X.
19060	Fahrney, Ezra, assignor to John Donaldson	Mill, hominy	Jan. 5, 1858	XIII.
19329	Fairbank, John B., dec'd, Joshua Fairbank and Edwin C. Durfee, administrators.	Planter, hand corn	Feb. 9, 1858	I.
21127	Fairchild, H. C	Planter, seed	Aug. 10, 1858	I.
20200	Fairchild, J. H	Water-wheel	May 11, 1858	XI.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22282	Fairchild, John H	Water-wheel	Dec. 14, 1858	XI.
22356	Fairclough, John	Mill-stones, balancing	Dec. 21, 1858	XIII.
22283	Fairfield, G. W	Car-seats and couches	Dec. 14, 1858	X.
19553	Faivre, A. C	Fire-arm, repeating	Mar. 9, 1858	XIX.
21328	Falconer, Ralph J	Fastener, sash	Aug. 31, 1858	II.
20635	Falkenbury, S	Cast-iron cylinders, repairing	June 22, 1858	II.
	Falls, Thomas J., jr. (See Lyon & Brady, assignors.)			
19414	Farris, William M	Metre, water	Feb. 23, 1858	XI.
19836	Farmer, George G	Iron and steel, hardening	April 6, 1858	II.
21329	Farmer, Moses G	Telegraph wire, method of sending and receiving messages simultaneously over the same.	Aug. 31, 1858	VIII.
22071	Farmer, Moses G	Electro-magnetic fire-alarm apparatus	Nov. 16, 1858	VIII.
21492	Farmer, Moses G , and John M. Batchelder	Telegraph insulators	Sept. 14, 1858	VIII.
20783	Farnam, Gilbert B	Pump	July 6, 1858	XI.
20240	Farrington, George K., and Samuel Brown, jr., assignors to themselves and David B Tiffany.	Candy-machine	May 11, 1858	XXII.
21637	Farrington, George K , assignor to D. B. Tiffany.	Churn	Sept 28, 1858	I.
19733	Farson, Enoch S., assignor to himself and Henry H. Brown.	Freezer, cream	March 23, 1858	XVII.
19921	Fasig, John	Hay-knives	April 13, 1858	I.
20844	Faust, John F., assignor to himself and Richard M. Ross.	Rake, horse hay	July 6, 1858	I.
19987	Favor, Zebulon C	Bedsteads, portable, invalid	April 20, 1858	XVII.
19189	Fawkes, Joseph W	Ploughing, machine for	Jan. 26, 1858	I.
20201	Fay, Henry C	Time-keeper	May 11, 1858	VIII.
21749	Fay, L	Metal, sheet, machine for cross-seaming	Oct. 12, 1858	II.
22172	Fay, L. N., and William Mason	Blind operator	Nov. 30, 1858	II.
20784	Fearington, J. J	Mills for cutting, crushing, and expressing the juice from sugar-cane.	July 6, 1858	XIII.
20870	Featherstone, H., and P. Engmann	Sawing-machine	July 13, 1858	XIV.
19764	Fee, William R	Springs, pneumatic	March 30, 1858	X.

19734	Feger, Daniel H., assignor to himself and Mahlon M. Wombaugh.	Car-brake, railroad	March 23, 1858	X.
19554	Feickert, Charles	Cord, plaited, machinery for manufacturing	March 9, 1858	III.
19023	Fell, H. R	Kiln, lime	Jan. 5, 1858	XV.
19138	Fenn, William A	Hats, felts, machinery for forming brims of	Jan. 19, 1858	III.
20997	Feraw, John H	Harness tug buckle	July 27, 1858	XVI.
20996	Ferber, A	Window-blinds, operating	July 27, 1858	IX.
21295	Ferguson, James, assignor to himself and Lazell, Perkins, & Co.	Valve gear of steam engines	Aug. 24, 1858	VI.
22173	Fergusson, John R	Furnaces, hot-air	Dec. 1, 1858	V.
611	Fernald, James	Chairs	Oct. 12, 1858	Reissue.
21950	Ferrier, John	Tackle-block	Nov. 2, 1858	XII.
19837	Ferris, W. P. Garrett, and J. Megratten	Refrigerator	April 6, 1858	XVII.
542	Ferry, William M., jr	Sawing-mill	April 6, 1858	Reissue.
20150	Ferry, William M., jr	Sawing-machines, circular device for governing lateral motion of carriage in gigging back in.	May 4, 1858	XIV.
22417	Fessel, H. E	Propeller, steering	Dec. 29, 1858	VII.
19059	Fetter, George, assignor to himself and Edward Jones.	Sewing-machines	Jan. 5, 1858	III.
	Field, David C. (See Hicks, Lucien, assignor.)			
20942	Field, Edwin	Watch-cases, making	July 20, 1858	VIII.
20340	Field, H T	Knife-polisher	May 25, 1858	XVII.
19838	Field, William	Presses, cotton	April 6, 1858	XII.
21190	Field, William	Bales, metallic bands for binding	Aug. 17, 1858	XII.
20998	Fields, John J	Car-springs, railroad	July 27, 1858	X.
21249	Fiester, John U	Desk, writing	Aug. 24, 1858	XXII.
20341	Filkins, W	Carpet-fastener	May 25, 1858	XVII.
20053	Finch, George W	Tuyere	April 27, 1858	II.
19355	Fink, Earl D	Traps for catching rats and other animals	Feb. 16, 1858	XXII.
	Finkham, H. G. (See Gibson, E. G., assignor.)			
20151	Finley, David	Casting car-wheels	May 4, 1858	II.
19356	Finn, John A	Surveyor's protractor	Feb. 16, 1858	VIII.
	Firman, Joseph. (See Hooffstater, Charles, assignor.)			
20054	Fischer, A	Cabbage-cutter	April 27, 1858	XVII.
22264	First, John, assignor to himself and James Frost	Sewing-machine	Dec. 7, 1858	III.
	Fish, John, *et al.* (See Goodfellow, S., assignor.)			
19083	Fisher, Henry	Mowing-machines	Jan. 12, 1858	I.
19246	Fisher, Joseph H	Amalgamator, gold	Feb. 2, 1858	II.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19555	Fisher, M	Railroad-rails splice	March 9, 1858	IX.
20152	Fisher, R. H	Harvester	May 4, 1858	I.
21827	Fisher, Rosewell H	Harvester	Oct. 19, 1858	II.
21662	Fisher, W. T	Graincleaning-machine	Oct. 5, 1858	I.
21663	Fisk, J. E	Gas-metre	Oct. 5, 1858	IV.
20055	Fisler, Thomas	Ruler	April 27, 1858	XVIII.
20261	Fitch, Benjamin	Barrelhead-machine	May 18, 1858	XIV.
22174	Fitts, David B	Watches, device to prevent injury from rupture of main spring of.	Dec. 1, 1858	VIII.
21250	Fitts, R. B., and Milton D. Whipple	Sewing-machine	Aug. 24, 1858	III.
	Fitzgerald and Perry, *et al.* (See Perry & Fitzgerald, assignors)			
21664	Fitzgerald, Peter	Rake, hay	Oct. 5, 1858	I.
208	Fleming, John	Lanterns, method of attaching lamps to	Nov. 2, 1858	Ad'l imp't.
20785	Fleming, John	Lamps to lanterns, method of attaching	July 6, 1858	V.
	Fletcher, E., and John Endsley. (See Endsley & Fletcher.			
22328	Flint, Samuel, and Robert S. Rogers, assignors to William F. Johnson.	Boots and shoes, heels for	Dec. 14, 1858	XVI.
20416	Flowers, A. B. J	Harvester	June 1, 1858	I.
19190	Floyd, Thomas, assignor to himself, David K. Wunderlick, and Benjamin F. Neal.	Brooms, art of making	Jan. 26, 1858	XVII.
	Flynn, J., P. Emrich, *et al.* (See Murrill, J. H., assignor.)			
21602	Focht, George	Blocks, tackle, attachment for	Sept. 28, 1858	VII.
21395	Fogerty, Valentine, assignor to Francis Houghton	Inkstands	Aug. 31, 1858	XVIII.
22329	Fogg, George W., assignor to himself and D. S. Fogg.	File-cutting machine	Dec. 14, 1858	II.
21191	Foley, C. O	Stove	Aug. 17, 1858	V.
19358	Folts, Jacob J	Fire-box and grate	Feb. 16, 1858	V.
22231	Forbes, Isaac W	Staves from the bolt, machine for cutting	Dec. 7, 1858	XIV.
21876	Forbes, Thomas	Brick-machine	Oct. 26, 1858	XV.

19501	Forbes, William H	Sash-fastener	Mar. 2, 1858	II.
1070	Forbes, William H	Coffins, metallic	Dec. 7, 1858	Design.
19500	Ford, F. G., and P. Plant	Vessels, sunken, method of raising	Mar. 2, 1858	VII.
21951	Ford, Joseph S	Vise, gas-fitters'	Nov. 2, 1858	II.
21665	Fordyce, John	Washing-machine	Oct. 5, 1858	XVII.
21411	Forman, J. C	Paper, machine for ruling	Sept. 7, 1858	III.
20762	Forman, S. F., assignor to Henry Z. Drew	Planing-machine, rotary, device for securing cutters in.	June 29, 1858	XIV.
21251	Forrester, J. N	Car-seats and couches	Aug. 24, 1858	X.
21330	Forsman, J. A	Mill-stones, hanging	Aug. 31, 1858	XIII.
	Forsyth, Rockwell, Rice, and Barnes. (See Buell & Barnes, assignors.)			
22022	Forsyth, Joseph	Churns, operating	Nov. 9, 1858	I.
538	Fosket, William	Hat bodies, machinery for making	Mar. 23, 1858	Reissue.
21877	Foster, Aaron	Grain-separators	Oct. 26, 1858	I.
19922	Foster, E	Bed-bottom, spring	April 13, 1858	XVII.
191	Foster, Elbridge	Life-preserving berths for steam and other vessels	Feb 16, 1858	Add'l imp't.
	Foster, J. R. (See Wood, A. H., assignor)			
19084	Foster, Josiah	Safe, marine	Jan. 12, 1858	VII.
19357	Foster, Josiah	Tree protector	Feb. 16, 1858	I.
20918	Foster, S. E., assignor to the W. Heywood Chair Co.	Chair-backs, machine for manufacturing	July 13, 1858	XIV.
528	Foster, Walter K	Pencil-sharpeners, moulds for casting	Feb. 23, 1858	Reissue.
19191	Foster, Walter K	Pencil-sharpeners, making blades for	Jan. 26, 1858	XVIII.
20056	Foster, Walter K	Pencil-sharpener	April 27, 1858	XVIII.
20262	Foster, Walter K	Pencil-sharpener	May 18, 1858	XVIII.
	Foulke, C. F., and H. Marshman. (See Marshman & Foulke.)			
19085	Fountain, James L	Harvesters, raking attachment for	Jan. 12, 1858	I.
20786	Fournier, S	Clocks, registering attachment for	July 6, 1858	VIII.
22115	Fowler, De Grass B	Carbon, mode of backing articles composed of	Nov. 23, 1858	IV.
21252	Fowler, Joseph, and F. M. Bacon	Seeding-machine	Aug. 24, 1858	I.
22418	Fowler, Joseph, and F. M. Bacon	Seeding-machine	Dec. 29, 1858	I.
21412	Fowler, R. E	Car-seats and couches	Sept. 7, 1858	X.
19556	Fowler, T	Pin-sticking machine	Mar. 9, 1858	II.
	Fowler, W. J. (See Donovan & Fowler.)			
	Fox, A. C. (See Keiper & Fox.)			
	Fox, F. (See White, J. P., assignor.)			
19988	Frampton, Charles	Burnisher	April 20, 1858	II.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20263	France, Thomas	Fabrics, woven tucked	May 18, 1858	III.
20390	Francis, Jerome B., assignor to William Harper, jr., assignor to J. B. Francis, assignor to James J. Clark.	Teeth, method of extracting	May 25, 1858	XX.
19693	Francis, Joseph	Boats, metallic	Mar. 23, 1858	VII.
19765	Francis, S. W	Omnibus fares, cane for paying	Mar. 30, 1858	X.
22357	Francisco, Samuel P., and William P. Dickinson	Hydrant	Dec. 21, 1858	XI.
	Frank, T., and J. Stuber. (See Stuber & Frank.)			
19139	Franz, John	Steamers, ships, &c., table rack for	Jan. 19, 1858	VII.
	Frary, James A. (See Whittelsey, N. P., assignor.)			
	Fraser, D. K., *et al* (See Gates, Fraser, & Chalmers.)			
21128	Fraser, N. W., and A J. McLellan	Cultivator	Aug. 10, 1858	I.
	Frazee, J. H. (See Love & Frasee.)			
	Frederick, M. C., and O. S. Boyden. (See Boyden & Frederick.)			
	Free, John W. (See Taylor, George, assignor.)			
20704	Freeman, K	Shingle-machine, rotary	June 29, 1858	XIV.
21331	Freeman, K	Car-seats and couches	Aug. 31, 1858	X.
19687	French, A. F., assignor to George J. Stannard	Reapers, binding attachment to	Mar. 23, 1858	I.
19989	French, Charles	Life-preserving bucket raft	April 20, 1858	VII.
	French, D. S., *et al.* (See Miller, W., assignor.)			
20202	French, E. P	Bee hive	May 11, 1858	I.
	French, Joshua A., and Eliza C. Tyrrell. (See Haskins & Macardle, assignors.)			
1074	French, William B	Book-marks	Dec. 14, 1858	Design.
	Frey, Charles. (See Roesler & Frey)			
19839	Frey, Joseph	Seeding-machine	April 6, 1858	I.
22284	Frick, Jacob	Boilers, steam, feed water and blow-off apparatus for.	Dec. 14, 1858	VI.
22358	Friend, Samuel, and George Seiler	Ring, finger, extension	Dec. 21, 1858	XVIII.

	Frisbie, John L., and M. Robbins. (See Robbins & Frisbie.)				
20943	Fritschler, William O. C	Rule, carpenters'	July	20, 1858	VIII.
21666	Fritz, John	Rolling railway iron	Oct.	5, 1858	III.
22359	Fritz, P. C	Grain, machine for separating garlic from	Dec.	21, 1858	XIII.
	Frost, A., and J. C. Kelly. (See Kelly & Frost.)				
555	Frost, I., and J. Monroe, assignors to H. A. Barr, J. D. Condit, A. Swift, D. Barnum, and J. M. Carr.	Flour from bran, machinery for separating	May	11, 1858	Reissue.
	Frost, James, *et al.* (See First, John, assignor.)				
524	Frost, Pinckney	Scythe fastenings	Feb.	9, 1858	Reissue.
	Froust, J. (See Conkling & Froust.)				
20342	Frye, J.	Plough gang	May	25, 1858	I.
	Fulfirth, William, *et al.* (See Lovelidge, T., assignor.)				
	Fuller & Chase. (See N. J. Willis, assignor.)				
	Fuller, Warren, & Morrison. (See Hathaway, David, assignor.)				
	Fuller, A., *et al.* (See Daniels, G. W., assignor.)				
21332	Fuller, Albert	Steam cock	Aug.	31, 1858	VI.
	Fuller, D. B and J. C. (See Kelsea, H., assignor.)				
22360	Fuller, Edward M.	Horse-power for driving reciprocating saws	Dec.	21, 1858	XIII.
597	Fuller, Joel B., and George W. Pierce	Trap for catching flies	Sept.	7, 1858	Reissue.
21750	Fuller, William S	Railings, iron, construction of	Oct.	12, 1858	IX.
21069	Fulton, W	Lamp	Aug.	5, 1858	V.
	Furbish, D. H., and J. B. Cahoon. (See Cahoon, C. W., assignor.)				
22175	Furbush, Calvin	Life-raft, extensible	Nov.	30, 1858	VII.
20417	Furlong, J. P	Bee-hive	June	1, 1858	I.
	Furniss, F. H. (See Myers & Furniss)				
	Gabel, John, *et al.* (See Williams, E. M., assignor.)				
19990	Gabriel, Benedict	Fence, field	April	20, 1858	IX.
	Gage, A. G., and J. F. Beckwith. (See Beckwith & Gage.)				
19696	Gage, D. H	Mills, pug, grinding attachment to	Mar.	23, 1858	XIII.
22288	Gaige, William W	Composition for tanning leather	Dec.	14, 1858	IV.
21667	Gaines, C. A	Cotton-scraper	Oct.	5, 1858	I.
20845	Gale, W. S., assignor to himself, A. A. Valentine, and W. H. Butler.	Valve-regulator	July	6, 1858	VI.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22419	Gallagher, Patrick	Chairs and other seats, spring-bottom for	Dec. 28, 1858	XVII.
	Gandolfo, J. (See Marzoni, C., assignor.)			
22116	Ganster, G. P.	Gearing	Nov. 23, 1858	XIII.
20606	Gardiner, C. F., assignor to himself and H. D. Gardiner.	Propeller	June 15, 1858	VII.
20418	Gardiner, Heman	Cars, railroad, springs for	June 1, 1858	X.
20419	Gardiner, Heman	Railroad axle, compound	June 1, 1858	IX.
19767	Gardiner, Perry G	Car-springs, machine for testing and measuring the strength of.	Mar. 30, 1858	X.
21603	Gardiner, Perry G	Car-springs, tempering steel for	Sept. 28, 1858	X.
21828	Gardiner, Perry G	Furnace for tempering steel	Oct 19, 1858	V.
21952	Gardiner, Perry G	Car-springs	Nov. 2, 1858	X.
19766	Gardiner, S., jr	Electricity, method of lighting gas by	Mar. 30, 1858	VIII.
20706	Gardiner, S., jr., and L. Blossom	Signal-lights, electric	June 29, 1858	VIII.
19736	Gardner, E. S., assignor to himself and John H. Gould.	Railways, city, tracks for	Mar. 23, 1858	IX.
	Gardner, H. F., *et al.* (See Willmott, W. W., assignor.)			
20705	Gardner, J. and W. and G	Lathe for turning oval frames	June 29, 1858	XIV.
20057	Gardner, M. C	Railroad-couplings, buffer-heads for	April 27, 1858	IX.
21192	Gardner, W.	Picture frames, oval, machinery for preparing	Aug. 17, 1858	XVIII.
20343	Garl, Jacob	Fish, apparatus for catching	May 25, 1858	XXII.
19923	Garlick, John T	Safe, water and fire proof	April 13, 1858	V.
19415	Garlington, T. C	Gin, cotton	Feb. 23, 1858	III.
19768	Garretson, T	Coal, slating, machine for	Mar. 30, 1858	V.
21604	Garrett, J. P., and Daniel Steckel	Railroad axles, compound	Sept. 28, 1858	X.
	Garrett, P., W. Ferris, and J. Megratten. (See Ferris, Garrett, & Megratten.)			
22232	Garver, Christian	Rake, horse	Dec. 7, 1858	I.
20636	Gaston, J. C	Roofing, metallic	June 22, 1858	IX.
	Gates, Edwin L. (See Alden & Gates.)			

21668	Gates, P. W., D. R. Fraser, and Thomas Chalmers.	Valves for steam-engines, gearing of cut-off	Oct. 5, 1858	VI.
22361	Gates, P. W., D. R. Fraser, and Thomas Chalmers.	Engines, steam, cut-off gear of	Dec. 21, 1858	VI.
	Gates, William, jr. (See Miller, Samuel, and William Gates, jr., assignors.)			
19991	Galtman, Isaac	Sulphuretted ores, treatment of	April 20, 1858	IV.
19630	Gaylord, Thomas G	Girder, wrought-iron	March 16, 1858	IX.
21413	Gear, Nathaniel	Potatoes, machine for digging	Sept. 7, 1858	I.
19502	Geddes, James W	Furnaces, hot-air, registers for	March 2, 1858	V.
	Geddes, W., and T. Lindsay. (See Lindsay & Geddes.)			
22176	Gee, William	Ashes and garbage safe	Nov. 30, 1858	XXII.
21953	Gehr, John	Plough	Nov. 2, 1858	I.
19024	Geib, David	Bolting flour	Jan. 5, 1858	XIII.
19290	Geisendorff, George W. and J. C	Car-axle boxes, railroad	Feb. 9, 1858	X.
19840	Geisendorff, George W. and J. C	Car-axles, railroad box-cases and lubricators for	April 6, 1858	X.
19291	Geisendorff, Jacob C	Lubricating apparatus for journal-boxes of railroad cars.	Feb. 9, 1858	XII.
20871	Geisendorff, Jacob C	Railroad car box-case and pedestal	July 13, 1858	IX.
19086	Gemunder, Albert	Guns, spring	Jan. 13, 1858	XIV.
20058	Gengembre, H. P	Gas-meters, liquids for	April 27, 1858	IV.
20787	Genung, A. A	Pump	July 6, 1858	XI.
19557	George, A. M	Hulling rice, maching for	March 9, 1858	I.
22177	Gere, Isaac W	Window-blind slats, machine for making	Nov. 30, 1858	IX.
20420	German, John, jr., and S. R. Perkins	Smut-machine	June 1, 1858	XIII.
20778	Getty, Henry	Faucet	July 6, 1858	XI.
20872	Ghormley, B. F	Washing-machine	July 13, 1858	XVII.
22420	Gibbony, A. F	Looms, shuttle-boxes for	Dec. 29, 1858	III.
20999	Gibbs, Ivers	Planing-machines, rotary stock for holding the cutters in.	July 27, 1858	XIV.
21129	Gibbs, James E. A	Sewing-machine	Aug. 10, 1858	III.
21751	Gibbs, James E. A	Sewing-machine	Oct. 12, 1858	III.
573	Gibbs, James E. A., assignor to J. A. Ruckman	Sewing-machine	July 13, 1858	Reissue.
21924	Gibbs, L. H., assignor to Gibbs Arms Company	Rifles, breech-loading, patching balls for	Oct. 26, 1858	XIX.
1003	Gibbs, S. W	Stove, cooks'	May 11, 1858	Design.
1004	Gibbs, S. W., assignor to Rathbone & Co	Stove, parlor	May 11, 1858	Design.
1005	Gibbs, S. W., assignor to Rathbone & Co	Stove plates	June 22, 1858	Design.
21639	Gibson, E. G., assignor to H. G. Finkham	Clothes-dryer	Sept. 28, 1858	XVII.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20944	Gibson, J. E	Boat, canal	July 20, 1858	VII.
20873	Gibson, Samuel	Trap for animals	July 13, 1858	XXII.
19694	Gies, C	Washstand, water-tight	March 23, 1858	XVII.
	Gilbert, H. (See Widmer, J., assignor.)			
19087	Gill, James H	Elevator, hay and straw	Jan. 12, 1858	XII.
19841	Gill, W. Y	Vessels, means for protecting tiller-ropes of, from fire.	April 6, 1858	VII.
20421	Gillam, Micah	Horse-power	June 1, 1858	XIII.
20203	Gilmore, Edwin W	Can, preserve	May 11, 1858	XVII.
19842	Gilmore, Henry H	Tongs, pipe	April 6, 1858	II.
	Giveen, Shaw, & Clark. (See Shaw, Clark, & Giveen.)			
20241	Gladding, C. E. and J. N., assignors to Charles E. Gladding.	Hay, forks for elevating	May 11, 1858	I.
19359	Gladwin, P. A	Plane-iron to its stock, method of securing the	Feb. 16, 1858	XIV.
22421	Gladwin, Porter A	Fastener, sash	Dec. 29, 1858	II.
20264	Gleason, F. E	Car-coupling, railroad	May 18, 1858	X.
19695	Glennon, Robert	Roofing cement composition	March 23, 1858	IX.
	Glover, C. W., and B. Murray, *et al.* (See Van Doren, John, assignor.)			
22117	Glover, Carlos W	Straw-carriers	Nov. 23, 1858	I.
22473	Glover, Carlos W., assignor to himself, Bronson, Murray, & J. Van Doren.	Stacking agricultural products	Dec. 28, 1858	I.
22075	Glover, Henry	Astronomical instruments	Nov. 16, 1858	VIII.
20344	Glover, N. J	Turning irregular forms, machine for	May 25, 1858	XIV.
22362	Glynn, Henry	Medicated fabrics	Dec. 21, 1858	XX.
19247	Goben, Levi F	Engine, steam, rotary	Feb. 2, 1858	VI.
19330	Goddard, Kingston	Hydrant	Feb. 9, 1858	XI.
22233	Goddard, Paul B	Composition for purifying gas	Dec. 7, 1858	IV.
22363	Godfrey, Edward K	Paper-file	Dec. 21, 1858	XVIII.
19844	Goffin, F. C	Boot-jack and burglars' alarm, combined	April 6, 1858	XVII.
19845	Golden, A. H	Lantern	April 6, 1858	V.

	Goldsmith, M. (See Hatfield & Goldsmith.)			
21253	Gomez, E., and W. Mills	Cartridge for fire-arms	Aug. 24, 1858	XIX.
1069	Gomez, Edwin	Fences, iron	Nov. 30, 1858	Design.
19558	Goodale, H. T	Vehicles, fifth wheel for	March 9, 1858	X.
22118	Goodes, E. A	Gearing	Nov. 23, 1858	XIII.
21232	Goodfellow, S., assignor to himself and John Fish.	Lathe, chuck for	Aug. 17, 1858	XIV.
20707	Goodwin, L	Button fastening	June 29, 1858	XXI.
22076	Goodyear, Albert (2d)	Feed-boxes for animals, automatic	Nov. 16, 1858	I.
	Goodyear, Charles	India-rubber fabrics	June 15, 1858	Extension.
556	Goodyear, H. B., administrator of N. Goodyear, deceased.	Rubber, hard, manufacture of	May 18, 1858	Reissue.
557	Goodyear, H. B., administrator of N. Goodyear, deceased.	Rubber, hard, manufacture of	May 18, 1858	Division of reissue.
21829	Gordon, Ebenezer	Photographic shield	Oct. 19, 1858	XVIII.
529	Gordon, George P	Printing press	Feb. 23, 1858	Reissue.
581	Gordon, George P	Printing press	Aug. 10, 1858	Reissue.
624	Gordon, George P	Printing press	Nov. 16, 1858	Reissue.
20874	Gordon, George P	Printing presses	July 13, 1858	XVIII.
20204	Gordon, George P., and F. O. Degener	Printing press	May 11, 1858	XVIII.
21047	Gordon, Thomas, assignor to Charles H. Bullard	Steam-heating apparatus	July 27, 1858	VI.
	Gordon, W. J. (See Green & Gordon.)			
	Gore, Henry. (See Houck & Gore.)			
19360	Gore, John	Harvesters, cutters for	Feb. 16, 1858	I.
21491	Gornal, Richard	Valve-slide, combination of a governor with a	Sept. 14, 1858	VI.
22286	Gornal, Richard	Bullets, hollow, machine for making	Dec. 14, 1858	XIX.
20422	Goshon, J. G., and W. Bowers	Grain, machine for cleaning	June 1, 1858	XIII.
	Goss, Senter, & Woodworth. (See Sherwood Allen, assignor.)			
	Gould & Wright. (See Wright & Gould.)			
19846	Gould, E. D	Collar blocks, horse	April 6, 1858	XVI.
21193	Gould, Fayette	Lock	Aug. 17, 1858	II.
	Gould, John H. (See Gardner, E. S., assignor.)			
20423	Goulding, Henry	Valves, steam	June 1, 1858	VI.
	Gove, Francis N., *et al.* (See Moore, Isaac, assignor.)			
22287	Grader, George W., and Benjamin F. Cowan	Gauge, steam, and water alarm for steam-boilers	Dec. 14, 1858	VI.
	Gragg, Moses H., *et al.* (See Shaw, Henry F., assignor.)			

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19559	Granger, R. D	Mill, grinding	March 9, 1858	XIII.
20265	Granger, R. D	Stove, cooking	May 18, 1858	V.
20846	Granger, W. J., assignor to D. J. Lake and C. B. Brown.	Metal, punch for perforating	July 6, 1858	II.
19769	Grant, James	Horse-power machine	March 30, 1858	XIII.
20059	Grassle, J. F.	Roofing tiles	April 27, 1858	IX.
	Gratz, R. H., and W. Hopper. (See Lloyd, C. C., assignor.)			
	Gray, A. (See Taggart & Gray.)			
19532	Gray, Joshua, assignor to himself and George O. Brastow.	Sewing-machine	March 2, 1858	III.
19665	Gray, Joshua, asssignor to himself and T. B. McKay.	Sewing-machine	March 16, 1858	III.
20060	Gray, S. H	Pump-coupling	April 27, 1858	XI.
21560	Gray, S. H	Pump	Sept. 21, 1858	XI.
21296	Gray, William H., assignor to himself and A. G. Brown.	Chain-stopper	April 20, 1858	VII.
19292	Gregg, Mahlon	Tenons on spokes, machines for cutting	Feb. 9, 1858	XIV.
19293	Gregor, W.	Shingle-machine	Feb. 9, 1858	XIV.
22073	Gregory, A	Hammer, hand	Nov. 16, 1858	II.
	Gregory, George W. (See J. F. Tozer, assignor.)			
	Greek, John. (See Mahaffy, W. A., assignor.)			
20424	Greeley, B. J	Suspender, shoulder-brace	June 1, 1858	XXI.
20708	Greeley, B. J	Pantaloons	June 29, 1858	XXI.
21333	Green, Charles	Spinning machinery, top-rollers for	Aug. 31, 1858	III.
21254	Green, Francis M	Corn-stalks in the field, machine for cutting up	Aug. 24, 1858	I.
561	Green, Henry	Harvester, cutting device for	May 25, 1858	Reissue.
562	Green, Henry	Mowing-machine	May 25, 1858	Division of reissue.
563	Green, Henry	Mowing-machine, reel supporters in	May 25, 1858	Division of reissue.

564	Green, Henry	Harvester, cutting device for	May 25, 1858	Division of reissue.
20126	Green, H., and W. J. Gordon, assignor to Henry Green.	Nail-machine	April 27, 1858	II.
21954	Green, Oliver C.	Straw-cutter	Nov. 2, 1858	I.
22364	Green, Plymon B.	Cars, railroad, seats and couches for	Dec. 21, 1858	X.
20266	Green, Ray	Corn-sheller	May 18, 1858	I.
	Green, Samuel. (See McLean, Donald, assignor.)			
19735	Green, Samuel, assignor to Silas B. Green	Belt-coupling	March 23, 1858	XIII.
	Green, Sarah, *et al.* (See Ball Thomas C., assignor)			
22072	Green, Wilson, and Malcom McFisher	Straw-cutter	Nov. 16, 1858	I.
20153	Greene, C. A.	Lamp, burner for vapor	May 4, 1858	V.
19603	Greene, Daniel G., assignor to himself and George H. Greene.	Corn-sheller	March 9, 1858	I.
19416	Greenhalgh, James, jr.	Tool, expanding	Feb. 23, 1858	II.
19770	Greiner, Ludwig	Dolls' heads, constructing	March 30, 1858	XVIII.
22074	Grey, William	Harvester, binding attachment to	Nov. 16, 1858	I.
20789	Griggs, Ira, assignor to Utica Screw Manufacturing Company.	Screw, machine for turning the heads and for nicking.	July 6, 1858	II.
20486	Griffin, B.	Bed-bottoms	June 8, 1858	XVII.
20061	Griffith, G. V.	Harvesters, raking attachment for	April 27, 1858	I.
	Griffith, William M., & Co. (See Orr, W. H., assignor.)			
20847	Grimes, William C., assignor to David Matthew	Indicators, water and steam	July 6, 1858	VI.
20848	Grimes, William C., assignor to David Matthew	Gauge, pressure	July 6, 1858	VI.
21468	Grimes, William C., assignor to David Matthew	Steam-pressure and water-indicator	Sept. 7, 1858	VI.
20487	Grimsley, J. H., and P. J. Aukney	Desks, writing	June 8, 1858	XXII.
20875	Grimsley, Joseph H.	Fire-escape ladders	July 13, 1858	XI.
192	Griscom Powell and Charles S. Denn	Lime-kiln	Feb. 23, 1858	Add'l imp't.
21334	Griswold, George W.	Boots and shoes, method of stretching	Aug. 31, 1858	XVI.
	Griswold, P., and H. H. Seeley. (See Seeley & Griswold)			
19631	Grodhaus, G. C.	Nail-machine, cut	March 16, 1858	II.
21414	Gronberg, C. P.	Harvesters, cutting device of	Sept. 7, 1858	I.
19697	Groomes, James B.	Engines, rotary, steam	March 23, 1858	VI.
21955	Grosholz, Louis	Cup, drinking	Nov. 2, 1858	XXII.
20345	Grosvenor, J. P.	Irregular forms, cutter-head and table-rest for cutting.	May 25, 1858	XIV.
21605	Grosz, Michael, and Peter H. Jackson	Vault-lights, metallic frames for	Sept. 28, 1858	IX.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20709	Ground, R. B	Planter, seed	June 29, 1858	I.
19843	Grove, John P. and John	Puddling furnace	April 6, 1858	II.
-	Grover, Potter, & Baker. (See Blodgett, S. C., assignor through N. Hunt.)			
20849	Grover, L. A., assignor to himself and N. T. Spear	Corn-huskers	July 6, 1858	I.
21669	Grover, W. O	Sewing-machine	Oct. 5, 1858	III.
21670	Grover, W. O	Sewing-machine	Oct. 5, 1858	III.
21671	Grover, W. O	Sewing-machine	Oct. 5, 1858	III.
21752	Grover, W. O	Sewing-machine	Oct. 12, 1858	III.
568	Grover, W. O., and W. E. Baker, assignors to the Grover & Baker Sewing-Machine Company.	Sewing-machine	June 15, 1858	Reissue.
572	Grover, W. O., and W. E. Baker, assignors to the Grover & Baker Sewing-machine Company.	Sewing-machines	July 6, 1858	Reissue.
	Gruol, John	Splints, attachment of adjustable foot-boards to	Jan. 5, 1858	XX.
	Guiet, M. J. A. (See Mathieu, Adolphe Nicholas, assignor.)			
	Guirand, A. (See Vascon & Guirand.)			
20267	Gujer, John	Fabric, thick woven	May 18, 1858	III.
19417	Gullett, B. D	Gins, cotton	Feb. 23, 1858	III.
19192	Gumaer, Samuel	Car-brake, railroad	Jan. 26, 1858	X.
206	Gunner, J., jr	Bolt, swing, for fastening shutters	Sept. 28, 1858	Add'l imp't.
19193	Guseman, W. D	Shingle-machines, device for shifting the bolt to effect the taper in.	Jan. 26, 1858	XIV.
19224	Gwynne, James S., assignor to Samuel Nicholson.	Hydraulic engine	Jan. 26, 1858	XI.
19362	Haas, Sebastian	Window-frames	Feb. 16, 1858	IX.
20488	Habich, George	Beer, manufacture of, apparatus for	June 8, 1858	IV.
22234	Hackman, Henry, jr	Door-latch	Dec. 7, 1858	II.
22235	Hadcock, John W., and Parker Wilcox	Rake, horse	Dec. 7, 1858	I.
20642	Hafer, A., and G. Wilkinson	Spokes in hubs, machine for setting	June 22, 1858	XIV.
21130	Hagan, John C	Locomotive steam-engine	Aug. 10, 1858	VI.
	Hagans, H. (See Wells & Hagans.)			

20470	Hagar, E. L., assignor to himself and T. D. Aylsworth.	Clothes, machine for wringing	June	1, 1858	XVII.
549	Hager, A., and Y. Allyn	Furnace, bagasse	May	4, 1858	Reissue.
19773	Hagey, G. W	Table, self-waiting	Mar.	30, 1858	XVII.
	Haines, J. H. (See Hunt & Haines)				
545	Haines, Jonathan	Harvesters, grain	April	13, 1858	Reissue.
19419	Haines, Joseph C	Ladle, culinary	Feb.	23, 1858	XVII.
	Haines, M. J. (See Kuhns & Haines.)				
	Haines, Richardson. (See Robins, Jabez, assignor.)				
21830	Halderman, William	Stave-jointer	Oct.	19, 1858	XIV.
21335	Hale, Albert W	Bell, house, portable	Aug.	31, 1858	XVII.
20641	Hale, Elias J.	Lamps, camphene	June	22, 1858	V.
21000	Hale, R	Steam, apparatus for distributing	July	27, 1858	VI.
22236	Haley, John G., Isaac Wilson, and Jackson Lyon	Washing-machine	Dec.	7, 1858	XVII.
20154	Hall, A	Washing-machine	May	4, 1858	XVII.
19140	Hall, Ashman	Grain-separator	Jan.	19, 1858	I.
20876	Hall, E., and J. F. Stewart	Shingle-machine	July	13, 1858	XIV.
	Hall, Gaylon. (See Heth & Hall.)				
19172	Hall, H. L., assignor to the Beverly Rubber Co.	Rubber, restoring waste vulcanized	Jan.	19, 1858	IV.
20242	Hall, H. L., assignor to the Beverly Rubber Co.	Rubber, utilizing waste vulcanized	May	11, 1858	IV.
22217	Hall, Hiram L., assignor to the Beverly Rubber Company.	Rubber, restoring waste vulcanized	Dec.	1, 1858	IV.
22265	Hall, Hiram L., assignor to the Beverly Rubber Company.	Rubber goods, vulcanized, manufacture of	Dec.	7, 1858	IV.
19418	Hall, J. H	Diapers, infants', substitute for	Feb.	23, 1858	XXI.
20638	Hall, J. R	Shingle-machine	June	22, 1858	XIV.
22366	Hall, John C	Fans, portable, manufacture of	Dec.	21, 1858	XXI.
19560	Hall, Joseph F	Curtain fixtures	Mar.	9, 1858	XVII.
20269	Hall, John M	Plough	May	18, 1858	I.
20425	Hall, Marquis L	Grain-cleaning machines	June	1, 1858	I.
21956	Hall, Pliny F	Railroad chairs	Nov.	2, 1858	IX.
	Hall, Robert. (See Mullen & Hall.)				
21194	Hall, S. W	Mitres, machine for cutting	Aug.	17, 1858	XIV.
	Hall, Theodore F. (See Hart, R., assignor.)				
22365	Hall, Theodore F	Window-sash, hanging	Dec.	21, 1858	IX.
20125	Hall, Thomas, assignor to Thomas Hall & Co	Nets, fishing	April	27, 1858	XXII.
19562	Hall, Washington	Stump-extractor	Mar.	9, 1858	IX.
20793	Hall, William	Railways, chair for	July	6, 1858	IX.
19568	Hall, Wm. Kemble	Boilers, steam, safety apparatus for	Mar.	9, 1858	VI.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21721	Hall, Wm. Kemble, assignor to Amos Broadnax	Leather, artificial	Oct. 5, 1858	XVI.
20271	Hallenbeck, M	Harvesters	May 18, 1858	I.
20272	Hallenbeck, M	Harvesters	May 18, 1858	I.
20426	Hallock, H	Vessels, navigable buoyant life-preserving state-rooms for.	June 1, 1858	VII.
21415	Hallock, Nicholas	Fruit box	Sept. 7, 1858	XVII.
1031	Ham, R., assignor to Smith, Sheldon, & Co	Stoves, cooks'	Aug. 3, 1858	Design.
	Hamblin, J. G. (See Young, Moses M., assignor.)			
19194	Hamer, James A	Pug mill	Jan. 26, 1858	XV.
22119	Hamer, James A	Brick moulds	Nov. 23, 1858	XV.
20428	Hamilton, F. W	Washstand and night-stool combined	June 1, 1858	XVII.
19632	Hamilton, George W., assignor to himself and Oliver P. Bower.	Life-preserving float	Mar. 16, 1858	VII.
22422	Hamilton, James	Propeller for boats	Dec. 28, 1858	VII.
19772	Hamilton, James J	Clothes-dryer	Mar. 30, 1858	XVII.
20063	Hamilton, James J	Lock for doors	April 27, 1858	II.
19633	Hamilton, Robert	Drill, seed	Mar. 16, 1858	I.
21195	Hammer, Adolph	Heating wash-tubs, apparatus for	Aug. 17, 1858	V.
20427	Hammond, D. D	Windlass	June 1, 1858	VII.
	Handerson & Davis. (See Ball, Thos., assignor.)			
	Handy, Anson. (See North, John, assignor.)			
	Handford, W. L. (See Collins, D., assignor.)			
	Hanley, James. (See Stephens & Hanley.)			
	Hannah, Joseph, and D. K. Jackman. (See Cummings, G. W., assignor.)			
	Hannay & Plant. (See Plant, P., assignor.)			
19771	Hannen, Henry	White lead, apparatus for manufacturing	Mar. 30, 1858	IV.
19634	Hannum, L	Washing-machine	Mar. 16, 1858	XVII.
20710	Hanscom, A. A	Ink rollers	June 29, 1858	XVIII.
21336	Hansell, Issachar P	Drawing-boards	Aug. 31, 1858	XVIII.
21753	Harbough, W. H	Water-wheel	Oct. 12, 1858	XI.
	Harding, L., *et al.* (See Weatherbee, E. D., assig'r.)			

19894	Harding, Thomas, assignor to Warder, Brokaw, & Child.	Reaping and mowing machine, cutting device for	April 6, 1858	I.
22288	Hardy, Michael	Hat bodies, machinery for forming	Dec. 14, 1858	III.
21535	Hardy, W., and J. Parkinson, assignors to Hardy, Parkinson, & Bates.	Valve, pressure and vacuum	Sept. 14, 1858	VI.
22423	Harger, Henry	Typographer, mechanical	Dec. 28, 1858	XVIII.
19363	Harkness, H. W	Harpoon and lance	Feb. 16, 1858	VII.
21298	Harkness, H. W., assignor to himself and J. W. Bliss.	Anchor balls	Aug. 24, 1858	VII.
21297	Harkness, H. W., and W. A. Terry, assignors to themselves and Joseph Sigourney.	Broiling, toasting, &c., apparatus for	Aug. 24, 1858	V.
22143	Harkness, Hiram W., assignor to himself and Willford H. Nettleton.	Sewing-machine	Nov. 23, 1858	III.
21754	Harkness, John C	Door, self-closing	Oct. 12, 1858	IX.
	Harnett, J. W. (See Waters & Harnett.)			
22249	Harnett, John Warren	Preventing incrustation of steam-boilers	Dec. 7, 1858	IV.
	Harold, John. (See Serrell, L. W., assignor.)			
	Harper, James, *et al.* (See Krauser, John L., assignor.)			
20062	Harper, T. B	Churn	April 27, 1858	I.
	Harper, William, jr. (See Francis, Jerome B., assignor.)			
21755	Harrington, Barzillai, and Nelson Russell	Tanning	Oct. 12, 1858	XVI.
21070	Harrington, Charles L	Cars, sleeping, for railroads	Aug. 3, 1858	X.
20607	Harrington, F. H., assignor to Horace Smith and Daniel B. Wesson.	Fire-arm, revolving	June 15, 1858	XIX.
	Harris & Clark. (See Clark & Harris.)			
21131	Harris, A. A	Rack, clothes	Aug. 10, 1858	XVII.
571	Harris, B. T., assignor to M. E. Harris	Workmen, machine for marking time of attendance of.	July 6, 1858	Reissue.
19141	Harris, Daniel	Sewing-machine	Jan. 19, 1858	III.
21673	Harris, Daniel	Carpet-sweeper	Oct. 5, 1858	XVII.
21672	Harris, Daniel	Sewing-machines	Oct. 5, 1858	III.
	Harris, E. A., administratrix. (See Stillman, Alfred, deceased.)			
	Harris, Hubbard. (See Richardson, Alpha, deceased.)			
20790	Harris, J. P	Plough	July 6, 1858	I.
19924	Harris, John	Drill, seed	April 13, 1858	I.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21804	Harris, John K	Harvester	Oct. 12, 1858	I.
20396	Harris, Joseph	Brakes, railroad	May 25, 1858	IX.
19465	Harris, Joseph, jr., and Daniel Holmes, assignors to Daniel Holmes.	Carpet-beating machine	Feb. 23, 1858	XVII.
19849	Harris, L. W	Potato-digger	April 6, 1858	I.
	Harris, Washington, and John S. Clark. (See Beesley, J., assignor.)			
21047	Harrison, C. C., and Joseph Schnitzer, assignor to C. C. Harrison.	Photographic cameras, diaphragm for	Sept. 7, 1858	XVIII.
625	Harrison, Edward	Mills, grinding	Nov. 16, 1858	Reissue.
20273	Harrison, James	Signs	May 18, 1858	XVIII.
621	Harrison, James	Locomotives, automatic steam whistles in	Nov. 9, 1858	Reissue.
21255	Harrison, James, jr	Springs, metallic	Aug. 24, 1858	X.
600	Harrison, James, jr	Sewing-machine	Sept. 14, 1858	Reissue.
22120	Harrison, Joshua	Ranges, cooking	Nov. 23, 1858	V.
20791	Harrison, R. H	Washing-machine	July 6, 1858	XVII.
21925	Hart, R., assignor to Theodore F. Hall	Hinges	Oct. 26, 1858	II.
21831	Hartell, Thomas R	Bottles, &c , apparatus for making glass stoppers for.	Oct. 19, 1858	XV.
22428	Hartell, Thomas R	Furnaces for burning lime	Dec. 28, 1858	V.
616	Hartell, William, and Joseph Lancaster, assignors to Thomas R. Hartell.	Heat, generating, mode of	Nov. 2, 1858	Reissue.
21494	Harthan, John and Ezra	Engine, steam, rotary	Sept. 14, 1858	VI.
19361	Hartman, H. T	Railroad snow plough	Feb. 16, 1858	IX.
19466	Hartman, John, jr., assignor to John Hartman, sr.	Weighing mechanism applied to the carts of coal dealers and others, construction and arrangement of the	Feb. 23, 1858	XII.
21469	Hartman, John, jr., assignor to John Hartman, sr.	Cars, railroad, couch seats for	Sept. 7, 1858	X.
20792	Hartman, S. H	Springs, machine for testing the strength of	July 6, 1858	XII.
20268	Hartman, Samuel H	Carriage springs, forming the heads of	May 18, 1858	X.
22250	Hartwell, C	Stoves	Dec. 7, 1858	V.
19661	Hartwell, Charles, assignor to Lewis L. Bartlett	Sash, metallic	Mar. 16, 1858	IX.

21878	Hartwell, Samuel E.	Bedstead-bottom	Oct.	26, 1858	XVII.
	Harvey, J. (See Vandenburg & Harvey.)				
	Harvey, J. M. (See Beeker & Harvey.)				
20555	Harvey, John	Windlass	June	15, 1858	VII.
19847	Harvey, John M., and N. J. Becker	Railroad station indicator	April	6, 1858	IX.
641	Harvey, Thomas W., assignor to Charles Ely, assignor to H. A. Harvey.	Screws, machine for cutting	Dec.	28, 1858	Reissue.
21957	Harvey, William	Rails, T, joint for	Nov.	2, 1858	IX.
19848	Harwood, Forest H.	Motion, converting reciprocating into rotary	April	6, 1858	XIII.
21832	Haskell, Jacob S	Table, writing	Oct.	19, 1858	XVII.
22144	Haskins, C. A., and G. Macardle, assignors to Joshua A. French and Eliza C. Tyrrell.	Dryers, grain and fruit	Nov.	23, 1858	V.
20556	Haskins, Charles A.	Printing presses, hand	June	15, 1858	XVIII.
20877	Haskins, R. W.	Ships, method of coppering the interior of, to protect them from lightning.	July	13, 1858	VII.
20639	Hatch, P.	Planter, corn	June	22, 1858	I.
21958	Hatfield A.	Seeding-machines	Nov.	2, 1858	I.
	Hatfield, Burdick, & Cloud. (See Cloud, Hatfield, & Burdick.)				
20878	Hatfield, J., and H. M. Goldsmith	Churn	July	13, 1858	I.
21071	Hatfield, R. G	Sound, tube for conveyance of	Aug.	3, 1858	XI.
978	Hathaway, David, assignor to Fuller, Warren, & Morrison.	Stoves (Viola)	Jan.	12, 1858	Design.
976	Hathaway, David, assignor to Fuller, Warren, & Morrison.	Stoves (Leader)	Jan.	12, 1858	Design.
977	Hathaway, David, assignor to Fuller, Warren, & Morrison.	Stoves (Consul)	Jan.	12, 1858	Design.
979	Hathaway, David, assignor to Fuller, Warren, & Morrison.	Stoves (Pride of the West)	Jan.	12, 1858	Design.
22398	Hathaway, William, assignor to William G. Maynard.	Clothes-frame	Dec.	21, 1858	XVII.
22367	Havell, Henry	Scissors, manufacture of	Dec.	21, 1858	II.
22178	Havens, Hiram H	Boilers, steam, sediment collector for	Dec.	1, 1858	VI.
	Havens, L. (See Came & Havens.)				
21674	Hawkins, Samuel C	Halters and bridles for horses	Oct.	5, 1858	XVI.
552	Hawkins, W., and W. C. Clary	Sawing-mill	May	11, 1858	Reissue.
19774	Hawkins, William, and William C. Clary	Sawing-mill	Mar.	30, 1858	XIV.
19294	Hawley, Edward E.	Planter, potato	Feb.	9, 1858	I.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Hay, Wilmarth, & Coffin. (See Wilmarth, Hay, & Coffin.)			
21471	Hay, Adam, assignor to himself and S. W. and L. B. Miller.	Railroad chair	Sept. 7, 1858	IX.
19027	Hayden, John J	Telegram keys, method of operating	Jan. 5, 1858	VIII.
	Hayden Manufacturing Company. (See Richardson, B , assignor.)			
20640	Hayes, John P	Furnace, air-heating	June 22, 1858	V.
21675	Haynes, Reuben	Laths, machine for cutting	Oct. 5, 1858	XIV.
	Haythorn, J. (See Rice & Haythorn.)			
21196	Hayward, F. D	Wrench	Aug. 17, 1858	II.
20637	Hazen, B	Corn-husker	June 22, 1858	I.
	Hazleton, J. . (See Pratt, George, assignor.)			
	Heartt, J. S. (See Ostrander & Heartt.)			
21337	Heath, William	Sad-iron-heater cover	Aug. 31, 1858	XVII.
19142	Heaton, John D., and W. A. Clark	Corn-husker	Jan. 19, 1858	I.
19635	Heaton, William	Fruit, apparatus for drying	Mar. 6, 1858	XVII.
19935	Hebbard, A	Car-couplings, railroad	April 13, 1858	X.
988	Hebbard, Henry, and John Polhamus	Spoons, &c., handles of	Feb. 16, 1858	Design.
	Heberling, T. H. (See Denley & Heberling.)			
19775	Hedenberg, Francis L	Heating apparatus	Mar. 30, 1858	V.
20489	Heerdt, W	Table, extension	June 8, 1858	XVII.
21416	Heerman, Theodore	Roasters, coffee	Sept. 7, 1858	V.
19088	Heiden, J	Vehicles, wheel	Jan. 12, 1858	X.
21166	Heidrick, F., assignor to C. F. Clothier	Lamp, burner for vapor	Aug. 10, 1858	V.
21073	Heikes, D. M	Fence, field	Aug. 3, 1858	IX.
20879	Heinisch, R	Tailors' shears	July 13, 1858	XXI.
	Hellings, John. (See Smith, Benjamin R.)			
19421	Helton, M. W	Mills, cider	Feb. 23, 1858	XIII.
21495	Hely, Georges	Horse-powers	Sept. 14, 1858	XIII.
19992	Henck, John B	Rails for street railroads	April 20, 1858	IX.
20794	Henderson, G., and J. Steetle	Metals, lathe for turning	July 6, 1858	II.

20274	Henderson, J. C.	Stoves	May	18, 1858	V.
622	Henderson, Joseph C.	Stoves	Nov.	9, 1858	Reissue.
20155	Henderson, W. H.	Eave-troughs, braces of	May	4, 1858	IX.
21496	Hendrick, A. T.	Hinge, gate	Sept.	14, 1858	II.
19660	Hendrick, Joseph E., assignor to himself and William Holmes.	Sewing-machines	Mar.	16, 1858	III.
21722	Hendrick, Joseph E., assignor to himself, W. H. Nettleton, and George Stevens.	Sewing-machines	Oct.	5, 1858	III.
19364	Hendrickson, Derius J.	Nails, tools for clenching	Feb.	16, 1858	II.
20064	Hendrickx, A.	Range and coal-gas generator, combination cooking	April	27, 1858	V.
21001	Hendrickx, A.	Gas apparatus, valves for	July	27, 1858	IV.
21072	Hendrickx, A., assignor to Victoria Hendrickx	Gas, apparatus for condensing and purifying	Aug.	3, 1858	IV.
22399	Heneage, Robert, assignor to himself and Edward O. Ball.	Hemp-brake	Dec.	21, 1858	III.
19606	Henn, J., assignor to himself, Anton, Daniel, and Leopold Lankan.	Tools to handles, attaching	Mar.	9, 1858	II.
	Henry, J. T. (See Weatherhead & Henry, assignors.)				
21959	Henry, W. Y	Seeding-machine	Nov.	2, 1858	I.
21561	Henshaw, F.	Pump	Sept.	21, 1858	XI.
21879	Henshaw, J. R.	Hook, self-mousing	Oct.	26, 1858	VII.
20971	Henwood, D., and J. Stephens, assignors to themselves and Thomas F. Rowland.	Hulling and cleaning rice, machine for	July	20, 1858	I.
21417	Herder, A.	Window-blinds	Sept.	7, 1858	IX.
22121	Hermance, M. Richard.	Stove, cooking	Nov.	23, 1858	V.
22023	Hermance, William G.	Gates, farm, method of opening and closing	Nov.	9, 1858	IX.
21233	Herrick, H. H., assignor to L. Culver	Carpet-sweeper	Aug.	17, 1858	XVII.
	Herrick, Harlow. (See White, Samuel, assignor.)				
	Herringshaw, Westbrook, & Parker. (See Parker, Sidney, assignor.)				
20557	Herron, A. C.	Sewing-machine	June	15, 1858	III.
19089	Herron, James P.	Ventilating pulpits, apparatus for	Jan.	12, 1858	V.
19973	Hersh, H. B. Banman, and H. C. Lacker	Alarm, burglars'	April	13, 1858	XXII.
19561	Hersh, Henry and Amos	Cutting and crushing corn-stalks, machine for	March	9, 1858	I.
19926	Hervey, H. L.	Alarm lock	April	13, 1858	XXII.
19295	Hervey, Horace L.	Alarm locks	Feb.	9, 1858	XXII.
21256	Heth, Albert, and Gaylon Hall	Sawing-machine, cross-cut	Aug.	24, 1858	XIV.
	Hewitt, John. (See Loomis & Hewitt.)				

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Heywood Chair Company. (See Foster, S. E., assignor.)			
19195	Heywood, R. W.	Ice in rivers, machine for planing away	Jan. 26, 1858	XXII.
21880	Heywood, Simeon	Switch, railroad	Oct. 26, 1858	IX.
22425	Hiatt, S.	Lock	Oct. 28, 1858	II.
	Hibbard, Elias. (See Nutz, L. N., assignor.)			
	Hibbard, H. F. (See Clinton, Miles N., assignor.)			
20346	Hibbard, J.	Press, cheese	May 25, 1858	XII.
21756	Hibbard, W. C.	Pump, centrifugal	Oct. 12, 1858	XI.
20795	Hibbs, J.	Wagons, running-gear of	July 6, 1858	X.
20880	Hibsch, George	Pump	July 13, 1858	XI.
19425	Hickok, W. O.	Straw-cutter	Feb. 23, 1858	I.
21961	Hickok, W. O.	Wooden screws, die for cutting	Nov. 2, 1858	XIV.
21960	Hickok, W. O.	Wooden screws, tap for cutting	Nov. 2, 1858	XIV.
21132	Hicks, George B.	Telegraphic instruments	Aug. 10, 1858	VIII.
21497	Hicks, L. E.	Gas-burner	Sept. 14, 1858	V.
19613	Hicks, Lucien E., assignor to David C. Field	Inkstand	March 9, 1858	XVIII.
21133	Hidden, W., and J. Reeves	Motive-power, apparatus for heating and cooling air to be used as a.	Aug. 10, 1858	XIII.
	Higbie, W. (See King, John, assignor.)			
19850	Higgins, L., and A. Brown	Sails, reefing	April 6, 1858	VII.
21338	Higgs, James R.	Hydrant	Aug. 31, 1858	XI.
19196	Hildreth, Abel	Alarm, tidal	Jan. 26, 1858	XXII.
19423	Hildreth, G. W.	Seeding-machine	Feb. 23, 1858	I.
21257	Hildreth, Paul	Seeding-machine	Aug. 24, 1858	I.
21797	Hiler, Selah, assignor to John M. and Cornelius A. Berrian.	Coating metals	Oct. 12, 1858	IV.
19028	Hill, B B., and S. W. Adams	Bit-holder	Jan. 5, 1858	XIV.
21676	Hill, Edmund	Traps, animal, construction of	Oct. 5, 1858	XXII.
21418	Hill, George J.	Printing and numbering press	Sept. 7, 1858	XVIII.
20558	Hill, Levi G.	Burning fluids, manufacture of	June 15, 1858	V.
	Hill, Samuel A. (See Alter & Hill.)			

21798	Hill, Samuel L, assignor to himself and A. Palmer, and A. S. Doan.	Spelling-block	Aug. 12, 1858	XVIII.
19296	Hill, U. C. and C. F.	Musical instruments	Feb. 9, 1858	XVIII.
	Hills, Andrew. (See Pickett & Hills.)			
19851	Hills, James H.	Row-lock	April 6, 1858	VII.
21339	Hills, William O.	Alarm, prison, apparatus for	Aug. 31, 1858	XXII.
21002	Hinds, William	Wheelwright's-machine	July 27, 1858	XIV.
21592	Hinckley, Jonas, assignor to himself and F. A. Wildman.	Sewing-machine	Sept. 21, 1858	III.
19467	Hinman, George, assignor to himself and John H. Pardee.	Scissors-sharpener	Feb. 23, 1858	XVII.
	Hitchcock, Rufus E., *et al.* (See Warner, Ezra J., assignor.)			
19197	Hoadley, John C.	Heaters or coolers	Jan. 26, 1858	V.
21419	Hoadley, Thomas	Clay, machine for moulding	Sept. 7, 1858	XV.
19564	Hoagland, A.	Lock	March 9, 1858	II.
20388	Hoard, J. W., assignor to himself and G. B. Wiggin.	Valve, steam-trap	May 25, 1858	VI.
21472	Hoard, J. W., assignor to himself and G. B. Wiggin.	Steam-trap	Sept. 7, 1858	VI.
21198	Hoard, John W., and Thomas A. Searle	Nail-plate feeder	Aug. 17, 1858	II.
20559	Hobson, Iris	Tire, wheel, reducing	June 15, 1858	II.
	Hobson, W. (See Baltzly & Hobson.)			
19777	Hock, John G.	Gas-generator	March 30, 1858	IV.
21962	Hoffacker, Joseph	Lock and key	Nov. 2, 1858	II.
21926	Hoffman, Francis, assignor to himself and John Menzell.	Bedstead, bureau	Oct. 26, 1858	XVII.
20347	Hoffman, Theodore A.	Sugar, manufacture of dextrine and	May 25, 1858	IV.
21420	Hoffmeier, Amos K.	Carriage-shafts, convertible	Sept. 7, 1858	X.
19468	Hoge, Solomon G., assignor to himself, R. H. St. John, and J. E. Leas.	Locomotives, walking, manner of attaching legs to.	Feb. 23, 1858	VI.
20560	Hoge, Thomas	Fence, field	June 15, 1858	IX.
19563	Hoke, David	Plough	March 9, 1858	I.
19927	Holbrook, A.	Lock, chronometric	April 13, 1858	II.
19928	Holl, Samuel	Wheelwright's machine	April 13, 1858	XIV.
	Holland, W. (See Ross & Holland.)			
19636	Hollely, Joseph	Blow-pipes	March 16, 1858	V.
22427	Hollensbury, John W.	Cannon, breech-loading	Dec. 28, 1858	XIX.
19779	Hollman, W. W.	Straw-cutter	March 30, 1858	I.
20796	Holly, A. P.	Pump, rotary	July 6, 1858	XI.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20919	Holly, B., assignor to himself and Jno. S. Edwards.	Stoves, furnaces, &c., atmospheric regulator for	July 13, 1858	VI.
20156	Holman, George W	Billiard-table cushions	May 4, 1858	XXII.
21562	Holmes, Alexander M	Dentist's chair	Sept. 21, 1858	XX.
21536	Holmes, Alexander M., assignor to himself and A. G. Purdy.	Car seats and couches	Sept. 14, 1858	X.
214	Holmes, Alexander M., assignor to himself and Albert G. Purdy.	Car seats and couches	Dec. 21, 1858	Add'l imp't.
20561	Holmes, D.	Skirt hoops	June 15, 1858	XXI.
	Holmes, Daniel. (See Harris & Holmes, assignors.)			
585	Holmes, David	Skirt hoops	Aug. 17, 1858	Reissue.
22426	Holmes, John	Skirts, ladies' hooped	Dec. 28, 1858	XXI.
	Holmes, A. (See Marsh, A., assignor.)			
	Holmes, William, *et al.* (See Hendrick, Joseph E., assignor.)			
22289	Holt, J. H., and J. H. Gerrould	Radiator, steam	Dec. 14, 1858	V.
20348	Holton, S., jr	Thermostat	May 25, 1858	VIII.
21606	Holyland, J. and J. C	Cracker-machine	Sept. 28, 1858	XVII.
21048	Holzer, Charles F., assignor to William B. Smith and William Bromwell.	Gas-regulator	July 27, 1858	IV.
20797	Homes, L	Railing, iron, method of constructing	July 6, 1858	IX.
19297	Homrighaus, Philip	Mills, hominy	Feb. 9, 1858	XIII.
20389	Hooffstatter, Charles, assignor to Joseph Firman	Stove	May 25, 1858	V.
21049	Hook, A. H., assignor to Union Sewing-Machine Company.	Sewing-machine	July 27, 1858	III.
22179	Hook, Albert H	Sewing-machine	Dec. 1, 1858	III.
19503	Hooker, Daniel and Solomon E	Coffins	Mar. 2, 1858	XXII.
21677	Hoole, E	Checks, baggage	Oct. 5, 1858	XXII.
	Hoover, Briggs, Sloan, & Smith. (See Sloan, Smith, Hoover, & Briggs.)			
20528	Hope, J., assignor to himself and T. Hope	Engraving-machines, apparatus for supporting and adjusting gravers for.	June 8, 1858	XVIII.
19607	Hope, John, assignor to himself and Thos. Hope	Engraving-machine, pentagraphic device for	Mar. 9, 1858	XVIII.

21723	Hope, John, assignor to himself and Thos. Hope	Printing calico, rollers for	Oct. 5, 1858	XVIII.
19424	Hopkins, D. A.	Journal-boxes	Feb. 23, 1858	X.
21563	Hopkins, Hiram	Smut-machines	Sept. 21, 1858	XIII.
20711	Hopkins, T. R.	Engravers, &c., ring clamp for	June 29, 1858	XVIII.
20712	Hopkins, W. A.	Cultivator	June 29, 1858	I.
20429	Hopper, T.	Car-brakes, railroad	June 1, 1858	X.
	Hopper, W. (See Lloyd, C. C., assignor.)			
22428	Horn, Edwin B.	Time-keepers, method of adjusting the tripper to escapement lever of.	Dec. 28, 1858	VIII.
	Horner, James. (See Bailey, John A., assignor.)			
19420	Horning, William	Rake, horse	Feb. 23, 1858	I.
19365	Horrall, W. A., and R. G. Sirwell	Harrow, revolving	Feb. 16, 1858	I.
	Horstmann, W. H. (See Shaler, R., assignor.)			
21498	Horstmann, W. H.	Walls under water, method of building	Sept. 14, 1858	IX.
19698	Horstmann, William J.	Loom, ribbon	Mar. 23, 1858	III.
	Horton, Steffie, & Currie. (See Steffie, Horton, & Currie.			
21074	Horton, C.	Fence, field	Aug. 3, 1858	IX.
21678	Horton, Hanford	Pistons for steam-engines, packing	Oct. 5, 1858	VI.
	Horton, Henry B. (See Thrasher & Horton)			
1016	Horton, J., assignor to D. Stuart and J. Peterson	Stoves	June 29, 1858	Design.
20430	Horton, M. L.	Stove, cooking	June 1, 1858	V.
19173	Horton, William F., assignor to Walter K. Marvin	Pump bucket	Jan. 19, 1858	XI.
20066	Hosford, M., and J. C. Avery	Harvester, cotton	April 27, 1858	I.
22290	Hotchkiss, B. B.	Harness snaps	Dec. 14, 1858	XVI.
21199	Hotchkiss, Gideon	Mill-spindles, method of securing and adjusting the steps of.	Aug. 17, 1858	XIII.
19366	Houck, George O., and Henry Gore	Brick-machine	Feb. 16, 1858	XV.
19248	Houck, James	Cultivator	Feb. 2, 1858	I.
19993	Houck, James	Nails, clenching horse-shoe	April 20, 1858	II.
22291	Hough, Joseph, and Jacob Moore	Car-brakes	Dec. 14, 1858	X.
19112	Hough, Sylvester A., assignor to himself and A. S. Hough.	Wagon-brake	Jan. 12, 1858	X.
20920	Houghton, A., assignor to himself and E. D. and G. Draper.	Spinning-frames	July 13, 1858	III.
	Houghton, F. B. (See Watt & Burgess, assignors.)			
	Houghton, Francis. (See Fogerty, Valentine, assignor.)			

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20349	House, R. E.	Omnibus-register	May 25, 1858	X.
605	House, Royal E.	Telegraph, magnetic printing	Sept. 28, 1858	Reissue.
	Houston, George. (See Parson & Houston.)			
19143	Houston, Joseph U.	File	Jan. 19, 1858	II.
21340	Howard, Jeremiah	Mills for sugar-cane	Aug. 31, 1858	XIII.
20431	Howard, William	Signal-lantern	June 1, 1858	VIII.
20562	Howarth, John	Distilling oils, apparatus for	June 15, 1858	IV.
20945	How, H.	Saw-filing machine	July 20, 1858	II.
19249	How, James, and Charles W. Copeland	Damper regulator	Feb. 2, 1858	V.
21258	Howe, E., jr.	Sewing-machine	Aug. 24, 1858	III.
21640	Howe, Frederick W., assignor to the Newark Machine Company.	Shafting, hangers and boxes for	Sept. 28, 1858	XIII.
19367	Howell, Charles	Reaping and mowing machine	Feb. 16, 1858	I.
19422	Howell, Charles	Harvester	Feb. 23, 1858	I.
19504	Howell, Charles	Mowing-machine	Mar. 2, 1858	I.
20275	Howell, Charles	Reaping and mowing machine	May 18, 1858	I.
21499	Howell, Charles	Harvesters, cutting apparatus for	Sept. 14, 1858	I.
19090	Howell, David	Metal plates, bending, machine for	Jan. 12, 1858	II.
19637	Howes, S., and G. E. Throop	Separator and cleaner, grain	Mar. 16, 1858	XIII.
20157	Howland, William H.	Quartz-crusher	May 4, 1858	II.
21998	Howson, Henry, assignor to J. P. and J. L. Wendell.	Axle-boxes	Nov. 2, 1858	X.
21421	Hoyer, Jacob K.	Meat-cutter	Sept. 7, 1858	XVII.
184	Hoyt, Benaiah C.	Plough	Jan. 5, 1858	Add'l imp't.
19175	Hoyt, George E., and Frederick Nishwitz, assignors to George E. Hoyt.	Coal-screen	Jan. 19, 1858	V.
21757	Hoyt, J. P. and O. W.	Water-wheel	Oct. 12, 1858	XI.
19994	Hoyt, John	Sleds, runners of	April 20, 1858	X.
20798	Hubbard, D. C.	Cultivator	July 6, 1858	I.
20799	Hubbard, G.	Faucet, measuring	July 6, 1858	XI.
21537	Hubbard, G. W., assignor to himself and H. Hubbard, and W. L. and N. L. Bradley.	Sewing-machine	Sept. 14, 1858	III.

21833	Hubbard, George W	Sewing-machine	Oct. 19, 1858	III.
19298	Hubbard, M. G	Harvester	Feb. 9, 1858	I.
22251	Hubbard, M. G	Harvester, grain and grass	Dec. 7, 1858	I.
20713	Hubbard, W. E	Horse-shoes	June 29, 1858	II.
	Hubbell, H. S. (See Wood, Roberts, & Hubbell.)			
521	Hubbell, William W.	Shells, eccentric, explosive	Jan. 19, 1858	Reissue.
19505	Hubbell, William W.	Shell, eccentric, explosive	Mar. 2, 1858	XIX.
19776	Hubbell, William W. and Richard	Car-wheels, railroad	Mar. 30, 1858	X.
19852	Hudgin, W.	Pipes, coupling	April 6, 1858	II.
20065	Hudson, Thomas S	Pen cleaner and holder	April 27, 1858	XVIII.
22429	Hudson, Thomas S	Inkstand	Dec. 28, 1858	XVIII.
	Hudson, W. S. (See Allen & Hudson.)			
21679	Hufnagel, Bernhard	Photographic baths	Oct. 5, 1858	XVIII.
20432	Huggins, J. S., and R. Chapman	Planter, cotton-seed	June 1, 1858	I.
	Hughes, J. (See Morse & Hughes.)			
	Hughes, Richard. (See Stuber & Hughes.)			
21423	Hulbert, Samuel	Plough	Sept. 7, 1858	I.
20077	Hull, Stephen	Harvester	Nov. 16, 1858	I.
20067	Humberger, A	Harvester, corn	April 27, 1858	I.
22430	Humphrey, John	Tool for slotting clothes pins	Dec. 28, 1858	XIV.
	Humphrey S. Dwight, *et al.* (See Creemer, John B., assignor.)			
19638	Humphries, Joseph	Anchor and life-preserver, combined floating	March 16, 1858	VII.
19250	Hunt, Augustus	Hoisting ice, apparatus for	Feb. 2, 1858	XII.
20881	Hunt, Caleb S	Pulleys, machine	July 13, 1858	XIII.
20490	Hunt, Franklin B	Grinding and cutting, machine for	June 8, 1858	XIII.
	Hunt, German H., *et al* (See Pool, R., assignor.)			
	Hunt, Homer P. (See Kendall & Hunt, assignors.)			
19026	Hunt, M. J., and J H. Haines	Planter, seed	Jan. 5, 1858	I.
22180	Hunt, R. W., and M. Kennedy	Seeding-machine	Dec. 1, 1858	I.
	Hunter, Keller, & Co. (See Wrangle, Moses, assignor.)			
20714	Hunter, W. A	Printers, type-case for	June 29, 1858	XVIII.
21200	Huntington, William C	Sawing-machine, reciprocating, for sawing plank	Aug. 17, 1858	XIV.
22400	Huntoon, Reuben K., assignor to himself and Jacob B. Rand.	Turning tapering twists on wood, machine for	Dec. 21, 1858	XIV.
19853	Hupp, A	Stave machines, method of holding and feeding the bolt in.	April 6, 1858	XIV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Hurd, F. P., administrator of J. Hurd, deceased, assignee by intermediate assignment of said J. Hurd.	Sugar, cleansing		Extension.
	Hurd, Francis P., assignee by intermediate assignment of Joseph Hurd.	Sugar, cleansing	Sept. 30, 1858	Reissue.
22292	Hurlburt, Charles R	Car springs	Dec. 14, 1858	X.
	Hurlburt, E., *et al.* (See White, LeRoy, assignor.)			
22431	Huse, Samuel, and Samuel, jr	Propelling and steering apparatus	Dec. 28, 1858	VII.
22368	Hussey, Obed	Harvesters, method of gathering grain upon, and discharging it from the platform of.	Dec. 21, 1858	I.
22432	Hussey, Obed	Block, spring tackle	Dec. 28, 1858	VII.
19144	Huston, John	Seeding-machine	Jan. 19, 1858	I.
21680	Hutchinson, William C	Hemp brake	Oct. 5, 1858	III.
20205	Huyett, William G	Paint compounds	May 11, 1858	IV.
20050	Hyatt, Thaddeus, assignor to George R. Jackson & Co.	Vault covers, illuminating glasses for	July 27, 1858	IX.
19778	Hyde, J. Burrows	Composition for coating telegraph wires	March 30, 1858	IV.
20758	Hyde, J. Burrows, assignor to Anna M. Hyde	Charcoal, converting peat into	June 29, 1858	IV.
19029	Hyde, John	Hydrant	Jan. 5, 1858	XI.
22122	Hyde, Joseph	Wrench, screw	Nov. 23, 1858	II.
20563	Hyde, O	Driver, post and pile	June 15, 1858	IX.
20715	Hyde, O	Picket, screw	June 29, 1858	XXII.
19091	Iliff, Charles R	Plotting instrument	Jan. 12, 1858	VIII.
20068	Ingalls, E. T., and James R. Nichols	Warming apparatus, steam	April 27, 1858	VI.
21259	Ingersoll, James	Cars, railroad, and running gear for	Aug. 24, 1858	X.
20311	Ingersoll, P. C., assignor to himself and H. F. Dougherty.	Bales, cotton, securing metallic bands on	May 18, 1858	XII.
20800	Ingersoll, S	Shafts without using a crank, rotary	July 6, 1858	XIII.
19811	Ingersoll, S., assignor to himself, S. B. Turner, and George W. Kimball.	Presses	Mar. 30, 1858	XII.
19781	Ingersoll, T. Dwight	Furnaces, air heating	Mar. 30, 1858	V.
19780	Ingraham, James M	Pots, coffee and tea	Mar. 30, 1858	XVII.

19030	Ingram, James	Conduits, grab for cleaning	Jan. 5, 1858	IX.
19368	Ingram, James	Ranges, water back for	Feb. 16, 1858	V.
20206	Irwin, John	Bedsteads, sofa	May 11, 1858	XVII.
	Iverson, Hans. (See Loudon & Iverson)			
21341	Ives, Ira A	Studs and lock-joint fastener for	Aug. 31, 1858	XVIII.
993	Ives, James	Carriage-hub sand-bands	Mar. 9, 1858	Design.
	Jackman, D. K. (See Cummings, G. W., assignor.)			
21300	Jackman, J., jr., assignor to himself and E. H. Ashcroft.	Valves, cut-off, of steam-engines	Aug. 24, 1858	VI.
21963	Jackson, Abram	Threshing-machine	Nov. 2, 1858	I.
	Jackson, Francis, *et al.* (See Comfort, Samuel, jr., assignor.)			
520	Jackson, George R	Vault-covers	Jan. 19, 1858	Reissue.
19639	Jackson, George R	Vault-covers, attaching the glasses of	Mar. 16, 1858	IX.
	Jackson, George R., & Co. (See Hyatt, Thaddeus, assignor.)			
997	Jackson, J. L. (No. 1)	Screens for steam-pipes, &c	April 13, 1858	Design.
998	Jackson, James L. (No. 2)	Screens for steam-pipes, &c	April 13, 1858	Design.
1045	Jackson, James L	Screens	Aug. 31, 1858	Design.
21342	Jackson, Joel C	Jack, lifting	Aug. 31, 1858	XII.
	Jackson, P. H. (See Leonard & Jackson.)			
21134	Jackson, Peter H	Ship's windlass	Aug. 10, 1858	VII.
21135	Jackson, Peter H	Cable-stopper	Aug. 10, 1858	VII.
	Jackson, Peter H. (See Grosz & Jackson.)			
21834	Jackson, Peter H	Pavements, metallic side, construction of	Oct. 19, 1858	IX.
21234	Jackson, T. D., assignor to Joseph W. Bartlett	Sewing-machine	Aug. 17, 1858	III.
21299	Jackson, Timothy D., assignor to Joseph W. Bartlett.	Sewing-machine	Aug. 24, 1858	III.
197	Jackson, W. R	Car-brake, automatic railroad	Mar. 30, 1858	Add'l imp't.
19854	Jacobs, J. Nelson	Files, machine for cutting	April 6, 1858	II.
21003	Jacobs, Zalmon L	Boilers, steam, apparatus for regulating the supply of water to.	July 27, 1858	VI.
19995	Jacobus, R. D	Governor, steam	April 20, 1858	VI.
20491	Jacot, C. E	Watch, stop	June 8, 1858	VIII.
22123	Jadwin, Orlando H	Inkstand	Nov. 23, 1858	XVIII.
22181	James, David E	Printing-press	Dec. 1, 1858	XVIII.
20433	James, Thomas	Brick, manufacture of	June 1, 1858	XV.
19640	Jamieson, T. S	Valves in steam-engines, mode of operating	Mar. 16, 1858	VI.
19929	Jaminet, A	Filterers, water	April 13, 1858	XI.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20434	Jancovins, R.	Back-band strap, self-adjusting and vibrating	June 1, 1858	XVI.
	James, Henry C. (See White, O., assignor.)			
22252	Janes, Reuben S.	Saws, circular, guard for	Dec. 7, 1858	XIV.
	Jastram, G. B., *et al.* (See Shaw & Carpenter, jr., assignors.)			
22369	Jeffery, Edwin A	Hoop-lock	Dec. 21, 1858	XIV.
21500	Jenkins, J.	Shoes, cemented-sole, heating apparatus for the manufacture of.	Sept. 14, 1858	XVI.
21424	Jenkins, Jacob	Boots and shoes, apparatus for applying soles to	Sept. 7, 1858	XVI.
21564	Jenkins, Jacob	Boots and shoes, apparatus for applying soles to	Sept. 21, 1858	XVI.
22433	Jenkins, John K.	Fruits, preserving	Dec. 28, 1858	XVII.
	Jenkins, R., and W. A. Stephens. (See Stephens & Jenkins.)			
	Jenkins, R., and E. W. Stephens. (See Stephens & Jenkins.)			
21964	Jenks, Lemuel P., and Francis Draper	Filtering-cock	Nov. 2, 1858	XI.
21425	Jennet, Joseph	Time-keepers, escapement of	Sept. 7, 1858	VIII.
19641	Jennings, Lyman	Knives while grinding, holder for planing	Mar. 16, 1858	II.
22024	Jensen, N.	Alarm, burglars'	Nov. 9, 1858	XXII.
22293	Jensen, N	Bandages	Dec. 14, 1858	XX.
21607	Jerome, George F. and Moses	Mowing-machine	Sept. 28, 1858	I.
21681	Jerome, George F. and Moses	Harvester	Oct. 5, 1858	I.
1000	Jerome, Samuel B	Clock-case fronts	May 4, 1858	Design.
20564	Jewell, M	Belting, round, manufacture of	June 15, 1858	XIII.
22078	Jillson, C.	Traps, animal	Nov. 16, 1858	XXII.
22682	Jobin, Joseph	Valves of steam-engines	Nov. 5, 1858	VI.
20435	Johns, W. B.	Bedstead	June 1, 1858	XVII.
	Johnson & Morey. (See Morey & Johnson, assignors)			
20686	Johnson, Albert F., assignor to himself and Francis F. Emery.	Sewing-machine	June 22, 1858	III.
20069	Johnson, Asa	Hose-supporter	April 27, 1858	XXI.

22124	Johnson, Benjamin	Tournures	Nov.	23, 1858	XXI.
	Johnson, C. D., *et al.* (See Mix, E. M. and J. E., assignors.)				
21501	Johnson, Daniel	Churn	Sept.	14, 1858	I.
20565	Johnson, H. G	Tanning leather	June	15, 1858	XVI.
21835	Johnson, Isaac G	Mercury, bottles for containing	Oct.	19, 1858	IV.
	Johnson, J., and H. E. Marsh. (See Delaney, E. J., assignor.)				
20350	Johnson, James B	Wind-wheels	May	25, 1858	XI.
21260	Johnson, John B	Fence, portable field	Aug.	24, 1858	IX.
21683	Johnson, Josee	Dough for bread, apparatus for raising	Oct.	5, 1858	XVII.
21758	Johnson, Josee	Pen-holder	Oct.	12, 1858	XVIII.
21759	Johnson, Josee	Book-marker, index or	Oct.	12, 1858	XVIII.
21881	Johnson, Josee	Pen, fountain	Oct.	26, 1858	XVIII.
21966	Johnson, Josee	Pins, shield	Nov.	2, 1858	XXI.
21927	Johnson, Josee, assignor to Joseph Ditto & Co	Roofing. compositions for	Oct.	26, 1858	IX.
22253	Johnson, Josee, and F. Bailey	Lamps, burners for	Dec.	7, 1858	V.
21836	Johnson, Josee, and R. Lapham	Boilers, steam, water-gauge for	Oct.	19, 1858	VI.
21136	Johnson, R	Window-sash, hanging	Aug.	10, 1858	IX.
	Johnson, R. R. (See Rand & Johnson.)				
19930	Johnson, S	Gold, machine for excavating and washing	April	13, 1858	II.
20566	Johnson, W	Shafting, adjustable hanger for	June	15, 1858	XIII.
20716	Johnson, W	Locks, band and other	June	29, 1858	II.
21756	Johnson, William	Boots and shoes, soles for, tool for chamfering	Oct.	12, 1858	XVI.
	Johnson, William F. (See Flint & Rogers, assignors.)				
19251	Johnston, James J	Mill, grain	Feb.	2, 1858	XIII.
20158	Johnston, James J	Planters, seed	May	4, 1858	I.
19565	Johnston, William K	Excavating post-holes, machine for	Mar.	9, 1858	IX.
19996	Joline, B	Vessels, navigable, centre-boards of	April	20, 1858	VII.
21684	Jollie, Samuel C	Ballot-box	Oct.	5, 1858	XXII.
21107	Jones, Amos, assignor to himself and Solon M. Davis.	Jack, mechanical	Aug.	3, 1858	XII.
	Jones, Edward, *et al.* (See Fetter, George, assignor.)				
20159	Jones, Edward F	Lamp	May	4, 1858	V.
22079	Jones, J. H	Horse-power, draught	Nov.	16, 1858	XIII.
196	Jones, J. M	Carriage-bodies, hanging	Mar.	30, 1858	Add'l imp't.
21882	Jones, John	Candles, machine for making	Oct.	26, 1858	IV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19566	Jones, John H., and Newton W. Smith	Fence, field	Mar. 9, 1858	IX.
21167	Jones, Joseph, assignor to Edmund and Joseph Jones, jr.	Plough	Aug. 10, 1858	I.
21965	Jones, R. V	Sausage-machine	Nov. 2, 1858	XVII.
20643	Jones, Samuel F	Seeding-machine	June 22, 1858	III.
20070	Jones, Samuel R	Cars, railroad, elliptic cushion for	April 27, 1858	X.
	Jones, Samuel R	Cars, railroad, elliptic cushion for	Oct. 26, 1858	Reissue.
	Jones, W. (See Tyler, Jones, & Lathrop)			
20351	Jones, W. D	Furnaces, &c., apparatus for separating the combustible from the incombustible gases or products of combustion in.	May 25, 1858	V.
	Jordan, A. C. (See Arnall, William M., assignor.)			
20529	Jordan, E., assignor to Benedict & Burnham Manufacturing Company.	Tubing, soldered, machine for finishing	June 8, 1858	II.
19782	Jordan, John A	Churn	Mar. 30, 1858	I.
20277	Jordan, Joseph, jr , and Thomas Eustice	Paper pulp, machine for grinding and sizing	May 18, 1858	III.
21261	Jordan, W. A	Washing-machines	Aug. 24, 1858	XVII.
21967	Joseff, P. P	Car-seats	Nov. 2, 1858	X.
20160	Joslyn, B. F	Fire-arm, revolving	May 4, 1858	XIX.
19699	Joyce, J. O	Pump	Mar. 23, 1858	XI.
21968	Judd, E. M	Fastener, sash	Nov. 2, 1858	II.
21201	Judson, A	Boats, canal, construction of	Aug. 17, 1858	VII.
19299	Julier, Edward	Washing-machine	Feb. 9, 1858	XVII.
21565	June, Henry R	Washing-machine	Sept. 21, 1858	XVII.
20717	Kahnweiler, D	Pipe-coupling	June 29, 1858	II.
21969	Kaller, Hermann	Seeding-machine	Nov. 2, 1858	I.
21608	Kane, Charles	Range and heating apparatus, combined cooking	Sept. 28, 1858	V.
19855	Kauffman, E	Pitcher, ice	April 6, 1858	XVII.
21343	Kaufmann, H. G	Harvesting-machine	Aug. 31, 1858	I.
21761	Keane, John	Malt liquors, apparatus for preserving	Oct. 12, 1858	IV.
21837	Kearney, William	Jack, hoisting	Oct. 19, 1858	XII.
20644	Keech, Joseph	Wash-boards	June 22, 1858	XVII.

20492	Keeler, J. F.	Scales, platform	June	8, 1858	XII.
	Keen & Ladd. (See Watt & Burgess.)				
22182	Keeports, A. L., and George Palmer	Pump	Dec.	1, 1858	XI.
19507	Keezer, John	Hominy-mortar	Mar.	2, 1858	XVII.
21273	Keiper, D. B., and A. C. Fox	Seeding-machine	Aug.	24, 1858	I.
	Keller, Hunter, & Co. (See Wrangle, Moses, assignor.)				
19506	Keller, Jacob	Paper bags, machine for making	Mar.	2, 1858	XVIII.
20801	Kelley, Austin	Skirt-hoop	July	6, 1858	XXI.
20207	Kelley, L. W	Cultivator	May	11, 1858	I.
20161	Kelly, J. C., and A. Frost	Mill, smut	May	4, 1858	XIII.
19061	Kelly, James, assignor to himself and John Sherry	Scales, platform	Jan.	5, 1858	XII.
19092	Kellner, Louis	Velocipedes	Jan.	12, 1858	X.
	Kellogg, Nathan, *et al.* (See Knight, Eleazor B.)				
19283	Kelsea, H., assignor to himself and Henry Dunklee, assignor to D. B. & J. C. Fuller.	Sewing silk, manufacturing	Feb.	2, 1858	III.
22145	Kendall, Amos E., and Peter K. Keyes, assignors to themselves and C. W. Elton.	Chair, reclining	Nov.	23, 1858	XVII.
21883	Kendall, H.	Press, cheese	Oct.	26, 1858	XII.
20493	Kendall, H. L.	Plane, bench	June	8, 1858	XIV.
21641	Kendall, H. L., and Homer P. Hunt, assignor to the New England Screw Company.	Screws, wood, cutting threads of	Sept.	28, 1858	II.
22082	Kendrick, R., and A. W. Akerson	Telegraphic instrument	Nov.	16, 1858	VIII.
	Kennard and Bigelow Brothers. (See Watson, John F., assignor.)				
19031	Kennard, Seneca C.	Measuring the superficies of boards, machine for	Jan.	5, 1858	VIII.
19700	Kennedy, John W.	Carpenters' brackets, &c., holding bolt for	Mar.	23, 1858	XIV.
21538	Kennedy, John W., and John T. Plummer, assignor to themselves and John Batchelder.	Wool, machinery for drawing and twisting	Sept.	14, 1858	III.
	Kennedy, M. (See Hunt & Kennedy.)				
	Kent, Joseph. (See Brown, J. S., assignor.)				
21502	Kenyon, Charles P.	Car-coupling, railroad	Sept.	14, 1858	X.
21344	Kenyon, James P. and Ellen	Lamp	Aug.	31, 1858	V.
1049	Kern, Francis	Bottles, nursery	Sept.	14, 1858	Design.
19701	Kerr, David B.	Dyeing yarn particolored	Mar.	23, 1858	IV.
19997	Kerr, J. W.	Hammer, operating blacksmith's	April	20, 1858	II.
20802	Ketcham, Alonzo R.	Boiler, steam	July	6, 1858	VI.
20718	Ketcham, Charles	Daguerreotype plates, machine for cleaning	June	29, 1858	XVIII.
19300	Ketcham, G. P., jr	Saws, reciprocating, method of straining	Feb.	9, 1858	XIV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20719	Ketchum, W. F	Harvester	June 29, 1858	I.
20494	Kettler, F	Stumps, machine for cutting out	June 8, 1858	IX.
	Keyes, Peter K. (See Kendall & Keyes.)			
19932	Kidd, Whitten E	Bonnet frames	April 13, 1858	XXI.
19567	Kidder, F. L , and A. E. Aeby	Vehicles, attaching the springs of	Mar. 9, 1858	X.
19931	Kidder, K. P	Bee-hive	April 13, 1858	I.
21075	Kidder, M. W	Stove, gas	Aug. 3, 1858	V.
20162	Kierstead, James F	Seeding-machine	May 4, 1858	I.
21884	Kihlholz, Bernhard	Chimney-caps	Oct. 26, 1858	V.
19370	Kilbourn, Joseph K. and Edward E	Knitting-machine	Feb. 16, 1858	III.
21566	Kilbourn, Joseph K. and Edward E	Knitting-machine, needles for	Sept. 21, 1858	III.
21762	Kilbourn, Joseph K. and Edward E	Knitting-machine	Oct. 12, 1858	III.
19702	Killam, Joseph W	Planing-machines, method of clamping polygonal pieces in.	Mar. 23, 1858	XIV.
20882	Killbrith, F	Shoemakers' edge-planes	July 13, 1858	XVI.
21137	Kimball, E. W	Planter, seed	Aug. 10, 1858	I.
	Kimball, G. W. (See Ingersoll, S., assignor.)			
	King, George C. (See Lewis & King, assignors.)			
	King, John. (See Wood & King.)			
20764	King, John, assignor to himself and W. Higbie, H. Link, and G. R. Comstock.	Frame, quilting	June 29, 1858	XVII.
20495	King, Samuel U	Brace, device for attaching bits to the	June 8, 1858	XIV.
20352	King, T. E. and A. and E	Post, iron gate and fence	May 25, 1858	IX.
21503	King, T. E , Alexander, and Edwin	Dove-tails, machine for cutting	Sept. 14, 1858	XIV.
21885	Kinkead, A	Tables, dining and other.	Oct. 26, 1858	XVII.
	Kinney, G. P., *et al.* (See Safford, M., assignor.)			
20496	Kinsey, M	Fire-arm, revolving	June 8, 1858	XIX.
20436	Kinsley, E. G., and S. A. W. Parker, jr	Daguerreotype and other cases, hinge for	June 1, 1858	XVIII.
19856	Kinsley, R	Tobacco, machine for crimping	April 6, 1858	XXII.
21504	Kinzer, Jacob	Lock, door	Sept. 14, 1858	II.
19369	Kinzer, Jacob	Furniture, casters for	Feb. 16, 1858	XVII.
19301	Kirck, Robert H	Window sash, removable	Feb. 9, 1858	IX.

20946	Kirk, Jacob W	Drill, seed	July	20, 1858	I.
	Kirkpatrick, John. (See Nutall & Kirkpatrick.)				
21685	Kitson, Richard	Card-clothing	Oct.	5, 1858	III.
21168	Klemm, Theodor, assignor to Edward Moss	Tanning hides	Aug.	10, 1858	XVI.
22125	Kline, Calvin	Attraction of the needle, local method of neutralizing.	Nov.	23, 1858	VIII.
19280	Klinger, John W., assignor to Ignatius Sturn	Pins, diaper or shawl	Feb.	2, 1858	XXI.
194	Klingle, P	Plough, steam	Mar.	9, 1858	Add'l imp't.
19427	Klingle, Pierce	Plough, steam	Feb.	23, 1858	I.
19575	Knab, David C	Gas, manufacture of	Mar.	9, 1858	IV.
19426	Knapp, Franklin L	Snow plough	Feb.	23, 1858	IX.
	Kneass, Strickland. (See Stiles & Kneass.)				
570	Knecht, Rudolph	Ships, &c., method of ventilating	July	6, 1858	Reissue.
21004	Kneeland, J. C	Paper, machinery for piling	July	27, 1858	III.
21539	Knight, Eleazer, assignor to himself and Nathan Kellogg.	Stone-holding machine	Sept.	14, 1858	XV.
21505	Knight, John Iris	Bullet-machine	Sept.	14, 1858	XIX.
19812	Knight, Judson, assignor to S. Boyd, assignor to R. W. Booth.	Hoes, manufacture of	Mar.	30, 1858	I.
21886	Knight, L. L., and D. H. Rice	Spoke-machine	Oct.	26, 1858	XIV.
20353	Knight, Silas P	Production of electrotype plates	May	25, 1858	IV.
21567	Knowles, Daniel R	Metal bars, machine for cutting	Sept.	21, 1858	II.
629	Knowles, Hazard	Saw-mill	Dec.	1, 1858	XIV.
530	Knowles, Lucius J	Boilers, steam, safety indicators for	Feb.	23, 1858	Reissue.
995	Koch, John P	Bedsteads, iron legs and posts of	Mar.	23, 1858	Design.
20276	Korff, G. H	Presses for zincographic printing	May	18, 1858	XVIII.
20921	Kraatz, David K., assignor to himself and Isaac S. Roland.	Water-wheel	July	13, 1858	XI.
21138	Kraemer, Frederick	Bathing apparatus	Aug.	10, 1858	XX.
21887	Kraft, G. W	Gasometer	Oct.	26, 1858	IV.
20472	Krausch, T	Railroad chairs	June	1, 1858	IX.
21076	Krause, F. C	Gas-burner	Aug.	3, 1858	V.
20947	Krause, H	Pressing grapes, machine for	July	20, 1858	XII.
21005	Krauser, John L	Nails, manufacturing	July	27, 1858	II.
20312	Krauser, John L., assignor to John L. Krauser and James Harper.	Nail-machine	May	18, 1858	II.
19371	Kuehnhold, F. B., and D. B. Sturges	Harness-trees	Feb.	16, 1858	XVI.
553	Kuhns, B., and M. J. Haines	Planter, seed	May	11, 1858	Reissue.
	Kuhns, Benjamin. (See Ball, George S., assignor)				

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19998	Kurth, Henry	Umbrellas	April 20, 1858	XXI.
21888	Kutts, John	Brick-machine	Oct. 26, 1858	XV.
	Laage, C. J., *et al.* (See Tyler, S. G , assignor.)			
19642	Lacassagne, Joseph, and Rudolph Thiers	Electric currents, apparatus for regulating and measuring the intensity of.	Mar. 16, 1858	VIII.
22254	Lachat, Auguste	Watch-cases	Dec. 7, 1858	VIII.
21051	Lackey, L., assignor to himself and E. Townsend	Shoes, machine for pegging	July 27, 1858	XVI.
	Ladd & Keen. (See Watt & Burgess, assignors.)			
22183	Ladd, D	Planter, corn	Dec. 1, 1858	I.
19933	La France, T. S	Valve, throttle	April 13, 1858	VI.
19934	Lagowitz, S	Trunk handles, mode of constructing	April 13, 1858	XV.
	Lake, D. J. (See Granger, W. J., assignor.)			
	Lamb, Isaac. (See Mendenhall, Stephen C., assignor.)			
	Lamb, Thomas. (See Spencer & Lamb.)			
22294	Lammrich, Charles	Table, folding	Dec. 14, 1858	XVII.
	Lancaster, Joseph. (See Hartell & Lancaster.)			
20183	Lancelott, J., assignor to Sackett, Davis, & Co.	Chains, sheet-metal	May 4, 1858	XVIII.
20720	Landenberger, M	Skirt-hoops	June 29, 1858	XXI.
	Landenberger, Martin. (See Vickerstoff, Joseph, assignor.)			
19935	Landis, John K	Straw-cutter	April 13, 1858	I.
20645	Landon, D	Harvester, corn	June 22, 1858	I.
	Lane, C. (See Owens, Lane, & Dyer.)			
20948	Lane, Conrad M.	Casting hinges	July 20, 1858	II.
20497	Lane, D. M	Carriage-springs	June 8, 1858	X.
19062	Lane, James C., assignor to himself and J. H. Barnes.	Quadrants, &c., artificial horizon for, method of determining.	Jan. 5, 1858	VIII.
	Lane, Philander P. (See Smith & Lane.)			
19372	Langdon, J. W	Wagons, extension-reach for	Feb. 16, 1858	X.
21889	Lanier, John M	Bridles to prevent horses from kicking or running away.	Oct. 26, 1858	XVI.

	Lankan, Daul, *et al.* (See Henn, J., assignor.)			
20723	Lanphear, Norman	Bedstead	June 29, 1858	XVII.
21568	Lanpher, A. M	Brush cylinders for spreaders, cotton-gins, &c.	Sept. 21, 1858	III.
21139	Lantz, J., and J. Russell	Wheat, cleaning-machine for	Aug. 10, 1858	XIII.
	Lanzweert, L. (See Tucker & Lanzweert.)			
20392	Lapham, A., and D. H. Burns, assignors to themselves and C. A. Durgin.	Car-couplings, railroad	May. 25, 1858	X.
	Lapham, R. (See Johnson & Lapham.)			
21569	Larrowe, A	Wagon-brake, self-acting	Sept. 21, 1858	X.
22295	Larrowe, A	Sled-brake	Dec. 14, 1858	X.
21970	Lashbrooks, James	Straw-cutter	Nov. 2, 1858	I.
606	Lashier, Daniel	Steam-pistons, metallic packing for	Sept. 28, 1858	Reissue.
	Lathrop, B. (See Tyler, Jones, & Lathrop.)			
20567	Laubach, W. H	Gas, retort for generating	June 15, 1858	IV.
22434	Laubach, William H	Gas-retort	Dec. 28, 1858	IV.
19033	Law, Robert	Shingle-machine	Jan. 5, 1858	XIV.
	Lawrence & Abbott. (See Smith & Brown, assignors.)			
22025	Lawrence, D. M	Cars, railroad, sleeping-berths for	Nov. 9, 1858	X.
19609	Lawrence, H., assignor to himself and J. M. Connel.	Washing-machine	Mar. 9, 1858	XVII.
	Lawrence, William. (See Wood & King, assignors.)			
	Lazell, Perkins, & Co., *et al.* (See Ferguson, James, assignor.)			
21262	Leach, Edwin	Music-stool	Aug. 24, 1858	XVIII.
19857	Leaman, Henry A	Piano-forte action	April 6, 1858	XVIII.
	Leas, J. E. (See Hoge, Solomon G., assignor.)			
20568	Leavenworth, L	Corn-husker	June 15, 1858	I.
20208	Leavitt, C	Mill, corn	May 11, 1858	XIII.
21263	Leavitt, Rufus	Bed-bottom	Aug. 24, 1858	XVII.
21345	Leavitt, W. D	Sawing-machines, circular, method of attaching the spreader to saws of.	Aug. 31, 1858	XIV.
21838	Leavitt, William D	Sawing, re-, machine	Oct. 19, 1858	XIV.
20072	Lee, Francis D	Life and treasure buoy	April 27, 1858	VII.
20280	Lee, R. K	Keys, safety-drop for	May 18, 1858	II.
	Lee, R. S. (See Barrett, Lee, & Waters.)			
20073	Lee, Thomas	Fire-arm, breech-loading	April 27, 1858	XIX.
21763	Lee, Thomas M	Cultivator	Oct. 12, 1858	I.
22126	Lefebvre, L	Sugar-juices, furnace for evaporating	Nov. 23, 1858	IV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
609	Lefler, J. George	Carriages, wear-iron for	Oct. 5, 1858	Reissue.
19034	Lefler, Silas F	Churn	Jan. 5, 1858	I.
20569	Legare, J. M	Composition ivory frame	June 15, 1858	IV.
21570	Legros, Charles	Life-boats, expansable floats for	Sept. 21, 1858	VII.
21506	Leguay, Henry	Clay, machine for working	Sept. 14, 1858	XV.
	Leibrandt, McDowell, & Co. (See Smith & Brown, assignors.)			
531	Leicht, Conrad	Billiard-cues	Feb. 23, 1858	Reissue.
19643	Leidy, John	Grain cradle	Mar. 16, 1858	I.
21006	Lennon, S. N	Railroad switches, signal lantern for	July 27, 1858	IX.
22296	Lenzmann, Charles L	Hose, engine	Dec. 14, 1858	XI.
575	Leonard, A	Wagons, casting skeins for	Aug. 3, 1858	Reissue.
991	Leonard, Allen, assignor to Rogers Manufacturing Company.	Pots, tea and coffee	Feb. 23, 1858	Design.
19093	Leonard, Burton W	Mills, grinding	Jan. 12, 1858	XIII.
20721	Leonard, E. P., and P. H. Jackson	Vaults, &c., illuminating covers for	June 29, 1858	IX.
21890	Leslie, J. Y	Lampwick	Oct. 26, 1858	V.
	Lester, E. A	Car wheels, railroad, method of making cast iron	Aug. 10, 1858	Extension.
21202	Lester, J. N	Smut-machine	Aug. 17, 1858	XII.
	Levengood & Deppen. (See Deppen & Levengood.)			
19858	Levett, Morris	Dental plates, atmospheric pressure	April 6, 1858	XX.
20354	Lewenburg, L	Marine alarm and fog signal	May 25, 1858	VII.
614	Lewis, C. N., and G. C. King, assignors to George C. King.	Pumps, ventilating attachment to be applied to	Oct. 26, 1858	Reissue.
20163	Lewis, Charles N	Corn-husker	May 4, 1858	I.
20071	Lewis, E. E	Fence, field	April 27, 1858	IX.
21007	Lewis, E. E , W. D. Dunning, and C. Wheat.	Railroads, compound rails for	July 27, 1858	IX.
21609	Lewis, John	Ships, balance sail rig for	Sept. 28, 1858	VII.
19508	Lewis, Reuben L	Boot-trees	Mar. 2, 1858	XVI.
22370	Lewis, Thomas	Bottle-stopper	Dec. 21, 1858	XXII.
22080	Lewis, Thomas	Breast-pipes	Nov. 16, 1858	XX.
22371	Lewis, Tristram S	Bench, folding	Dec. 21, 1858	XXII.

22435	Lewis, Tristram S	Clothes-horse	Dec.	8, 1858	XVII.
20646	Lewis, W. W	Horse-shoe machine	June	22, 1858	II.
21140	Lewis, William	Drills, rock	Aug.	10, 1858	IX
10094	Lewis, William J	Chain-making machine	Jan.	12, 1858	II.
19252	Lewis, William and W. H	Photographic cameras, frames for	Feb.	2, 1858	XVIII.
20075	Liebrich, Conrad	Toy	April	27, 1858	XXII.
22081	Liernur, Charles T	Registering speed of railroad trains, method of	Nov.	16, 1858	VIII.
	Lighthizer, V. B. (See Campbell, Lighthizer, & Shannon.)				
21426	Lillibridge, Gardner R	Railroad-indicator	Sept.	7, 1858	IX.
21427	Lillie, Lewis	Safe, iron	Sept.	7, 1858	II.
19469	Lilly, John O. D., James L. Vanclain, and James W. Lilly.	Locomotives in engine-houses, arrangement for carrying off smoke from.	Feb.	23, 1858	VI.
21686	Lincoln, Levi E	Boilers, steam, water-alarm for	Oct.	5, 1858	VI.
20570	Lindner, G. H	Doors, double fastening for	June	15, 1858	II.
19253	Lindner, Joseph R	Corn-sheller	Feb.	2, 1858	I.
19569	Lindsay, Alexander	Glass, &c., machine for polishing	Mar.	9, 1858	XV.
21008	Lindsay, T., and W. Geddes	Paper-making machines	July	27, 1858	III.
	Lindsey, Moore, & Clark. (See Moore, Clark, & Lindsey.)				
589	Lindsey, Hosea	Pump	Aug.	24, 1858	Reissue.
	Link, H. (See King, John, assignor.)				
209	Link, Henry	Propeller	Nov.	16, 1858	Add'l imp't.
19783	Lipman, Hymen L	Lead-pencil and eraser, combination of	Mar.	30, 1858	XVIII.
20074	Lippincott, O	Planter, corn	April	27, 1858	I.
22127	Lippmann, Adolphus	Refrigerator	Nov.	23, 1858	XVII.
20850	Lipps, J. P., assignor to George D. Baldwin	Lock	July	6, 1858	II.
	Litchfield, H. T. (See Young, Moses M., assignor.)				
21891	Lithgow, David	Iron, flat	Oct.	26, 1858	XVII.
20949	Little, M	Potatoes, machine for digging	July	20, 1858	I.
21264	Little, Samuel H	Hemp, machine for breaking	Aug.	24, 1858	III.
19302	Little, Thomas E	Mills, scrapers for grinding	Feb.	9, 1858	XIII.
	Littlefield, Dennis G. (See Easterly, Jas., ass'r.)				
21507	Littlefield, Sanford	Hoops, machine for notching and trimming	Sept.	14, 1858	XIV.
21508	Littlejohn, Hiram	Hoops, wooden, machine for cutting and finishing the locks of.	Sept.	14, 1858	XIV.
20680	Lloyd, C. C., assignor to W. Hopper and R. H. Gratz.	Gas metres, dry valves for	June	22, 1858	IV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22271	Lloyd, Jane H., administratrix of Richard L. Lloyd, deceased, assignor to George T. Parry.	Boilers, steam, device for preventing explosions in.	Dec. 7, 1858	VI.
19705	Loane, Henry E	Railroad car coupling	March 23, 1858	IX.
21892	Locke, Richard B	Paddle-wheel	Oct. 26, 1858	VII.
	Locker. (See Hersh, *et al.*)			
20278	Lockwood, E. D	Hame-tug fastener	May 18, 1858	XVI.
19326	Lombard, Daniel, assignor to himself and George F. Richardson.	Corn-husker	Feb. 9, 1858	I.
19470	Lombard, Daniel, assignor to himself and George F. Richardson.	Brick-machine	Feb. 23, 1858	XV.
21428	Long, Israel	Cultivator	Sept. 7, 1858	I.
19703	Long, J. M., P. Black, and R. Allstatter	Harvester	March 23, 1858	I.
19704	Long, Stephen H	Railways, superstructure of	March 23, 1858	IX.
21203	Long, Stephen H	Bridge	Aug. 17, 1858	IX.
21204	Longman, Samuel	Amalgamating gold and silver	Aug. 17, 1858	II.
21205	Loomis, W. H., and John Hewitt	Drill, rock	Aug. 17, 1858	IX.
21429	Lord, James	Printing address on newspapers, &c , machine for.	Sept. 7, 1858	XVIII.
21346	Lord, John P	Lock	Aug. 31, 1858	II.
	Lorenz, W., and J. D. Steele. (See Steele & Lorenz.)			
	Loth, Moritz. (See Reuthe, Frederick, assignor.)			
	Lothrop, Horace A	Hoe		Disclaimer.
21347	Loudon, John, and Hans Iverson	Hinges for window-blinds	Aug. 31, 1858	II.
21764	Loudon, John, and Hans Iverson	Stirrups	Oct. 12, 1858	XVI.
20076	Loughran, Michael	Spike-machine	April 27, 1858	II.
	Lounsbury, Bissell, & Co. (See Butler, Thomas B., assignor.)			
21141	Lounsbury, Charles, jr	Apples, machine for coring and quartering	Aug. 10, 1858	XVII.
20279	Love, B. F., and J. H. Frazee	Horse-power	May 18, 1858	XIII.
539	Lovegrove, Thomas J	Casting iron pipe, employing centrifugal force in	March 23, 1858	Reissue.
21509	Lovejoy, Henry, and Robert Wheeler	Electrotype moulds, machine for coating	Sept. 14, 1858	XVIII.

19784	Loveland, John C	Scissors sharpener	March 30, 1858	XVII.
20498	Loveless, C. B	Lamps, burners for vapor	June 8, 1858	V.
20883	Loveless, T. W	Pile-driver, adjustable	July 13, 1858	IX.
21396	Lovelidge, T., assignor to himself and William Fulfirth.	Knitting-machine	Aug. 31, 1858	III.
19571	Loving, Josephus	Press, cotton	March 9, 1858	XII.
19644	Low, H. H	Sawing-machine	March 16, 1858	XIV.
19570	Low, William H	Valve, safety	March 9, 1858	VI.
20355	Low, Henry	Paper pulp from reeds, preparing	May 25, 1858	III.
20884	Lowe, Henry	Paper stock from reeds	July 13, 1858	III.
20851	Lowe, Joshua, assignor to himself and Daniel Barnum.	Gauge, magnetic steam	July 6, 1858	VI.
21971	Lowman, Elias B	Railroad turn or circular switch, miner's	Nov. 2, 1858	IX.
	Lown, J. (See Pittock, Richmond, & Phelps, assignors.)			
	Lown, Phelps, & Carver. (See Richmond & Pittock, assignors.)			
20950	Loy, G. W	Mill-stone dress	July 20, 1858	XIII.
20127	Lucas, George J., assignor to himself and John G. Lucas.	Vehicles, adjustable seats of	April 27, 1858	X.
19373	Ludlow, W. D	Refrigerator	Feb. 16, 1858	XXII.
	Ludlum, James, and James Horner. (See Bailey, John A., assignor.)			
	Luttgens, H. A., and H. Uhry. (See Uhry & Luttgens.)			
19859	Lutz, J. B	Seeding-machine	April 6, 1858	I.
19428	Lyford, Zebulon	Looms, pickers for	Feb. 23, 1858	III.
21142	Lyles, Henry	Gas, apparatus for generating	Aug. 10, 1858	IV.
20209	Lyman, A S	Cans for preserving food	May 11, 1858	XVII.
20722	Lyman, A. S	Cans for preserving food, &c	June 29, 1858	XVII.
21077	Lyman, A. S	Fibre of wood, separating the	Aug. 3, 1858	III.
20356	Lyman, Josiah	Protractor	May 25, 1858	VIII.
20499	Lyman, W. W	Pitcher, refrigerating	June 8, 1858	XVII.
21348	Lyman, W. W	Cans, preserve, method of sealing	Aug. 31, 1858	XVII.
22436	Lyman, W. W	Cans, fruit	Dec. 28, 1858	XVII.
20077	Lynch, John A	Paper, machine for wetting	April 27, 1858	XVIII.
21350	Lyon, E. L	Seeding-machine	Aug. 31, 1888	I.
21610	Lyon, Hamilton	Ovens by steam, method of heating	Sept. 28, 1858	V.
	Lyon, Jackson. (See Haley, Wilson, & Lyon.)			

Patentees of inventions and designs, 1848.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22101	Lyon, James, and George H. Brady, assignors to themselves and Thomas J. Falls, jr.	Bungs, machine for cutting	Nov. 16, 1858	XIV.
19429	Lyon, John H	Coal, machines for splitting	Feb. 23, 1858	V.
20885	Lyon, John H	Stone, machine for drilling and splitting	July 13, 1858	XV.
22297	Lytle, R. McG., William J. Alston, and Lorenzo W. True.	Chair, folding	Dec. 14, 1858	XVII.
	Macardle, G. (See Haskins & Macardle.)			
21510	Macdonald, J. C	Valve cock	Sept. 14, 1858	VI.
20649	Mace, A. M	Lamp, vapor	June 22, 1858	V.
20648	Mace, A. M	Lamp burner, vapor	June 22, 1858	V.
21893	Mace, A. M	Burner, hydro-carbon vapor	Oct. 26, 1858	V.
	Mackay, T. B. (See Gray, Joshua, assignor.)			
22255	Mackenzie, John	Sewing-machine	Dec. 7, 1858	III
20165	Mackerley, B	Metallic tubes, punching	May 4, 1858	II.
20282	Mackerley, B	Grinding, toothed cylinder for	May 18, 1858	XIII.
187	Mackerley, Benjamin	Mill, cider	Jan. 19, 1858	Add. imp't.
21235	Mackintosh, W., and S. Wadsworth, assignors to Cridge, Wadsworth, & Co	Valves, steam	Aug. 17, 1858	VI.
20724	Macnish, J	Knife and spoon cleaner	June 29, 1858	XVII.
20025	Macnish, James	Churn	April 20, 1858	I.
20803	Macnish, James, (A)	Churn	July 6, 1858	I.
20804	Macnish, James, (B)	Churns	July 6, 1858	I.
630	Macnish, James	Churn	Dec. 1, 1858	Reissue.
20283	Macomber, H. N	Lamp, vapor	May 18, 1858	V.
	Macrum, N. G. (See Barnes, Henry, assignor.)			
21571	Maddock, John	Horse-shoe	Sept. 21, 1858	II.
21206	Maffet, William R	Excavating-machine	Aug. 17, 1858	IX.
21397	Mahaffey, W. A., assignor to John Greek	Planter, seed	Aug. 31, 1858	I.
19785	Maillefert, B	Diving-bell	Mar. 30, 1858	VII.
20650	Main, W. H	Corn-sheller	June 22, 1858	I.
21265	Main, W. H	Harrow, rotary	Aug. 24, 1858	I.
22026	Main, William H	Harrow, rotary	Nov. 9, 1858	I.

20284	Malbert, Jean B., and Auguste Cheviron	Cradle, spring rocking	May 18, 1858	XVII.
19737	Maliphant, C., assignor to Thomas West	Ships' bulk-head	Mar. 23, 1858	VII.
21765	Mallerd, William	Gas regulator	Oct. 12, 1858	IV.
21839	Mallory, George	Skirt, hoop	Oct. 19, 1858	XXI.
19035	Mallory, George H	Dovetailing rotary-cutters in their heads, method of.	Jan. 5, 1858	XIV.
22083	Mallory, George H	Shingles, machine for sawing and planing	Nov. 16, 1858	XIV.
21078	Manley, E	Can, preserve	Aug. 3, 1858	XVII.
21972	Manley, E	Soldering, machine for	Nov. 2, 1858	II.
21352	Mann, C. M	Car seats, railroad	Aug. 31, 1858	X.
22437	Mann, Howard	Cultivator	Dec. 29, 1858	I.
21351	Mann, John L	Bending felloes, machine for	Aug. 31, 1858	XIV.
20681	Mann, R. J., assignor to L. A. Osborn and I. J. Vincent.	Skirt, hoop	June 22, 1858	XXI.
22051	Mann, R. J., assignor to L. A. Osborn and I. J. Vincent.	Skirt, skeleton hoop	Nov. 9, 1858	XXI.
21009	Manning, S. B	Bran-duster	July 27, 1858	XIII.
19860	Manning, Samuel B	Smut-machine	April 6, 1858	I.
19509	Manning, W	Barrel-heads, machine for cutting	Mar. 2, 1858	XIV.
22330	Manning, William H., assignor to himself and Lucius H. Olmsted.	Soap, machine for cutting	Dec. 14, 1858	IV.
20805	Manny, J. P	Harvester, raking and binding attachment to	July 6, 1858	I.
20806	Manny, J. P	Harvester	July 6, 1858	I.
20807	Manny, J. P	Harvester, track-cleaner for	July 6, 1858	I.
20808	Manny, J. P	Harvester, fingers	July 6, 1858	I.
20809	Manny, J. P	Grain in bundles or sheaves, mode of securing	July 6, 1858	I.
22298	Mansfield, Joseph	Bath, shower	Dec. 14, 1858	XX.
19787	Manton, Joseph P	Windlass	Mar. 30, 1858	VII.
20438	Manville, E. J., and S. G. Blackman	Gas apparatus	June 1, 1858	IV.
21010	Marcell, M. R	Churn	July 27, 1858	I.
19936	Marcellus, A	Mowing-machine, track-clearers for	April 13, 1858	I.
19938	Marcellus, H	Harvester, grain and grass	April 13, 1858	I.
19999	Marcellus, H	Harvester	April 20, 1858	I.
20164	Marcellus, H	Mowing-machine	May 4, 1858	I.
	March, H. E. (See Delany, E. J., assignor.)			
21430	Marcher, Robert J	Gilding, apparatus for preparing elliptical frames for.	Sept. 7, 1858	XVIII.
22184	Markham, Daniel, and Austin S. and David Eldred.	Seeding-machine	Dec. 1, 1858	I.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21687	Marks, Joseph	Spark-arrester	Oct. 5, 1858	VI.
20285	Marland, John	Spindle, machine for applying cop-tubes to	May 18, 1858	III.
21169	Marsh, A., assignor to himself, E. H. Hovell, J. Q. Dudley, and R. Holmes.	Gas-retort	Aug. 10, 1858	IV.
21207	Marsh, C. W. and W. W	Reaping-machine	Aug. 17, 1858	I.
	Marsh, George. (See McClure & Marsh.)			
22084	Marsh, James S	Harvester	Nov. 16, 1858	I.
22185	Marsh, Nathan B	Preservation of flesh for food	Dec. 1, 1858	IV.
22299	Marshall, Edward	Cannon, breech-loading	Dec. 14, 1858	XIX.
22256	Marshall, Edward	Saw-set	Dec. 7, 1858	II.
22438	Marshall, F. M	Planter, seed	Dec. 28, 1858	I.
20500	Marshall, J. V	Piano-forte action	June 8, 1858	XVIII.
	Marshall, W. H. (See Ross & Marshall.)			
22128	Marshman, H., and C. F. Foulke	Smut-machine	Nov. 23, 1858	XIII.
20571	Marston, John R	Lock, door	June 15, 1858	II.
	Martin, George G. (See Rollin, Daniel G., assignor.)			
21999	Martin, James W., assignor to Lewis Rothermel	Weighing-cart	Nov. 2, 1858	XII.
	Martin, Levi L. (See Thayer & Martin.)			
	Martino, John. (See Delany & Martino.)			
21894	Martratt, C	Press, cotton	Oct. 26, 1858	XII.
19939	Martz, George	Hoisting and dumping coal	April 13, 1858	XII.
21431	Martz, George	Hoisting and dumping apparatus	Sept. 7, 1858	IX.
	Marvin, Walter K. (See Horton, W. F., assignor.)			
19036	Mary, Nicholas	Process of dyeing silk, &c	Jan. 5, 1858	IV.
22401	Marzoni, C., assignor to J. Gandolpho	Paper pulp from wood, manufacture of	Dec. 21, 1858	III.
	Mason, C. (See Doane & Mason.)			
19374	Mason, John C	Hinge	Feb. 16, 1858	II.
19786	Mason, John L	Lathe, chuck	Mar. 30, 1858	II.
22129	Mason, John L	Bottles, moulds for making	Nov. 23, 1858	XV.
22186	Mason, John L	Bottles, screw-neck	Dec. 1, 1858	XXII.

20952	Mason, N	Lamp, vapor-burning	July	20, 1858	V.
19861	Mason, S., and E. M. Davis	Vise anvil for repairing T rails	April	6, 1858	II.
20281	Mason, Sandford, and Edward M. Davis	Rails, T, block for repairing	May	18, 1858	IX.
	Mason, William. (See Fay & Mason.)				
19147	Masser, H. B	Freezer, ice cream	Jan.	19, 1858	XVII.
	Mast, P. P. (See Thomas & Mast.)				
19146	Mather, John C	Switch, portable railroad	Jan.	19, 1858	IX.
21266	Mather, John C	Rails for switching cars off	Aug.	24, 1858	IX.
21973	Mathews, Charles	Smoking-tube	Nov.	2, 1858	XXII.
20078	Mathews, P. V	Gilding on glass, mode of protecting	April	27, 1858	XVIII.
	Mathews, S. R. C. (See Race & Mathews.)				
21011	Mathews, Samuel	Sinks, sewers, &c., flushing valve-trap for	July	27, 1858	IX.
20020	Mathieu, Adolph Nicholas, assignor to M. J. A. Ginet.	Pasteboard and paper, manufacture of leather	April	20, 1858	III.
20647	Matteson, Don C	Plough-gang	June	22, 1858	I.
21611	Matteson, Elisha	Power, mechanical	Sept.	28, 1858	XIII.
	Matthew, David. (See Grimes, C., assignor.)				
19095	Matthew, David	Car-boxes, railroad	Jan.	12, 1858	X.
22439	Matthew, David	Locomotive axle-bearings	Dec.	8, 1858	VI.
20810	Matthewman, J	Alarm-clock, burglar's	July	6, 1858	XXII.
21840	Matthews, C. B	Harvester, maize	Oct.	19, 1858	I.
19967	Matthews, Levi, assignor to himself and J. K. Andrews.	Engine, rotary steam	April	13, 1858	VI.
21895	Matthewson, R. C	Transit instrument	Oct.	26, 1858	VIII.
20286	Mattice, F. M	File-machine	May	18, 1858	II.
19510	Mattison, James H	Barrel-heads, machine for cutting	Mar	2, 1858	XIV.
21769	Mattison, James H	Barrels, machine for chamfering and crozing	Oct.	12, 1858	XIV.
19572	Mattison, Judson	Packing flour, machine for	Mar.	9, 1858	XII.
618	Mauck, R. C., and W. T. McGahey	Harvester, corn	Nov.	2, 1858	Reissue.
21688	Maule, Henry	Signals on railroads, mode of transmitting magnetic	Oct.	5, 1858	VIII.
19940	Maurer, William	Bar for securing bank vaults	April	13, 1858	II.
21841	Maxwell, R	Bedstead	Oct.	19, 1858	XVII.
21511	May, Isaac M	Bedstead-fastening	Sept.	14, 1858	XVII.
21432	May, John	Paddle-wheel propeller	Sept.	7, 1858	VII.
22440	May, S. W	Corn, machine for picking	Dec.	28, 1858	I.
19431	May, William H., and Charles W. Coontz	Sowing fertilizers, machine for	Feb.	23, 1858	I.
22441	Mayall, Thomas J	Spring door	Dec.	28, 1858	II.
21799	Mayall, Thomas J., assignor to himself and Benjamin F. Cooke.	Stair-pad, elastic	Oct.	12, 1858	XVII.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22218	Mayall, Thomas J., assignor to himself and G. N. Davis.	Rubber, hard, manufacture of	Dec. 1, 1858	IV.
19430	Maydole, James H.	Stones, machine for gathering	Feb. 23, 1858	I.
21012	Maynard, G.	Carriages for children, hanging	July 27, 1858	X.
22300	Maynard, Gilbert	Carriage, children's	Dec. 14, 1858	X.
	Maynard, William G. (See Hathaway, William, assignor.			
19145	Mays, John	Sawing-machine	Jan. 19, 1858	XIV.
523	McAdams, John	Books, account, machine for numbering the pages of.	Jan. 26, 1858	Reissue.
20357	McCammeron, Joseph	Seeding-machine	May 25, 1858	I.
	McCarty, Henry	Gates, lock, manner of suspending, opening, and closing.	Mar. 16, 1858	Extension.
20079	McCarty, John	Horse-shoes, machine for making	April 27, 1858	II.
20437	McCarty, John	Water-wheel, horizontal	June 1, 1858	XI.
21572	McCausland, John and Jefferson & James	Canal boat	Sept. 21, 1858	VII.
21842	McClay, Henry	Mop and brush combined	Oct. 19, 1858	XVII.
	McClean, William M. (See Borum & McClean.)			
21766	McClelland, R. W.	Carriage-wheels, box for	Oct. 12, 1858	X.
	McClintock & Cumberland. (See Cumberland & McClintock.)			
21301	McClure, B. W., and George Marsh, assignors to B. W. McClure and J. H. Windsor.	Collar-blocks, horse	Aug. 24, 1858	XVI.
	McCollum, J. (See Schuyler, J. S., assignor.)			
	McCollum, J. (See McConaughy, T, and J. McCollum.)			
20652	McConaughy, T., and J. McCollum	Vehicles, metallic wheels for	June 22, 1858	X.
19706	McConaughy, Thomas	Plough	Mar. 23, 1858	I.
19433	McConnell, James E., and William Seaton	Railroads, construction of the permanent way of	Feb. 23, 1858	IX.
578	McCormick, C. H.	Reaping-machine	Aug. 3, 1858	Reissue.
579	McCormick, C. H.	Reaping-machine	Aug. 3, 1858	Division of reissue.

21573	McCormick, C. H	Grass, &c., machine for cutting	Sept.	21, 1858	I.
637	McCormick, Cyrus H	Reaping-machine	Dec.	21, 1858	Reissue.
20080	McCormick, J. B	Harvester	April	27, 1858	I.
21349	McCormick, J. B., and W. R. Baker	Seeding-machine	Aug.	31, 1858	I.
20212	McCormick, L. J., William S., & C. H	Reaping and mowing machine	May	11, 1858	I.
19942	McCracken, James	Furnace	April	13, 1858	V.
21433	McCray, S. B	Valve governor for steam-engines	Sept.	7, 1858	VI.
21512	McCreary, John	Tenoning-machine	Sept.	14, 1858	XIV.
21143	McCue, J. & W. B	Distilling oils from coal, retort for	Aug.	10, 1858	IV.
20572	McDonald, A	Planter, cotton-seed	June	15, 1858	I.
	McDowell, Leibrandt, & Co. (See Smith & Brown, assignors.)				
19648	McElheran, John	Types, picture	Mar.	16, 1858	XVIII.
19707	McElheran, John	Graphotype	Mar.	23, 1858	XVIII.
20081	McElheran, John	Stereotype plates, method of preparing	April	27, 1858	XVIII.
21208	McElheran, John	Cerotypography, feed-motion for	Aug.	17, 1858	XVIII.
19432	McEvoy, Charles A	Refrigerator, table	Feb.	23, 1858	XVII.
19862	McFarlan, Thomas W., and Lewis H. Davis	Corn-sheller	April	6, 1858	I.
22257	McFarland, William	Furnace for melting iron	Dec.	7, 1858	V.
	McFisher & Green. (See Green & McFisher.)				
	McGahey, W. T. (See Manck & McGahey.)				
19574	McGee, Melville	Cars, railroad, mode of operating brakes of	Mar.	9, 1858	X.
21513	McGeorge, H. D	Hemp brake	Sept.	14, 1858	III.
22187	McGerrah, John	Fastener, shutter	Nov.	30, 1858	II.
19375	McGhan, Francis	Closet, water	Feb.	16, 1858	IX.
19937	McGill, George W	Door-fastener	April	13, 1858	II.
20951	McGinniss, Cornelius	Casting iron kettles	July	20, 1858	II.
22372	McGrew, James C	Elevating hay, machine for	Dec.	21, 1858	XII.
22442	McIntire, Charles	Shirt-stud	Dec.	28, 1858	XXI.
20573	McIntosh, C	Lamps for lighting gas	June	15, 1858	V.
19941	McIntyre, James C	Shutters, illuminating iron rolling	April	13, 1858	IX.
	McIntyre, M. (See Sullivan D., assignor.)				
20359	McKeachnie, A	Foot-cleaner	May	25, 1858	XVII.
20211	McKenzie, James	Wrench	May	11, 1858	II.
19573	McKibbin, W	Bridges, &c., constructing framing of	Mar.	9, 1858	IX.
	McKinlay, James M. (See Bosworth, Zephaniah, assignor.)				
21353	McKinstry, W. P	Carriage, children's	Aug.	31, 1858	X.
20651	McKown, J	Planters, seed	June	22, 1858	I.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20287	McLaughlin, P	Vessels, worming, parcelling, and serving the rigging of.	May 18, 1858	VII.
	McLaurin, D. and W. (See Bellingrath, Leonard, jr., assignor.)			
	McLauthlin, George T. (See Rider, Caleb, assignor.)			
	McLean, Aaron, R. (See Norman & McLean.)			
22443	McLean, Anne S	Corsets	Dec. 28, 1858	XXI.
19225	McLean, Donald, assignor to himself, Samuel Green, and Nathan Ames.	Sails, top reefing	April 26, 1858	VII.
22258	McLean, James P	Life-berth for vessels	Dec. 7, 1858	VII.
21767	McLean, Lazarus B	Truss-pads	Oct. 12, 1858	XX.
	McLellan, A. J. (See Fraser & McLellan.)			
22188	McLeod, N. N	Lightning-rods, supporting insulator for	Nov. 30, 1858	VIII.
21975	McMahen, A. A	Plough	Nov. 2, 1858	I.
20358	McMillen, G. M. L	Seeding-machine	May 25, 1858	I.
21768	McMurray, J. and R	Paper-making cylinders, constructing frames for wire-cloth	Oct. 12, 1858	III.
19437	McMurtry, John, assignor to Daniel Wiehl	Bale-hoops, cotton	Feb. 23, 1858	XII.
21052	McMurtry, John, assignor to James B. Clow and John Best.	Car-seats, railroad	July 27, 1858	X.
19303	McMurtry, Samuel G	Bolts, flour	Feb. 9, 1858	XIII.
22085	McNair, F	Drill, hand	Nov. 16, 1858	II.
21612	McNamara, David S	Harvesters	Sept. 28, 1858	I.
20166	McNary, John	Lathe, automatic	May 4, 1858	XIV.
20000	McNeill, A	Coal-scuttle and ash-sifter combined	April 20, 1858	V.
20811	McNeill, T. E	Pan, dust	July 6, 1858	XVII.
19304	McVeigh, William	Railroad-station pumps, method of operating	Feb. 9, 1858	IX.
19788	McVicher, J	Washing-machine	Mar. 30, 1858	XVII.
20001	McWhorter, F. S	Planter, potato	April 20, 1858	I.
	McWilliam, J. H., *et al.* (See Carhardt & Moore, assignors.)			

20360	Meacham, B. B	Corn-husker	May 25, 1858	I.
20653	Mears, L. R	Corn-husker	June 22, 1858	I.
19037	Mecay, Samuel P.	Washing-machine	Jan. 5, 1858	XVII.
	Megratten, Ferris, & Garrett. (See Ferris, Garrett, & Megratten.)			
	Megraw, William A. (See Shaw & Megraw.)			
21422	Meneely, George R	Bells, hanging	Sept. 7, 1858	XVII.
	Mensell, John, *et al.* (See Hofman, Francis, assignor.)			
19038	Merk, George W.	Tin, machine for bending	Jan. 5, 1858	II.
20812	Merk, M	Plough, hill-side	July 6, 1858	I.
20953	Merick, D. E	Propeller	July 20, 1858	VII.
19943	Merriam, J. H.	Stencil-pallet	April 13, 1858	XVIII.
	Merrick, Silas. (See Miner & Merrick.)			
20954	Merrill, James H	Fire-arm, breech-loading	July 20, 1858	XIX.
21770	Merrill, Platt	Match safe, friction, portable and water-proof	Oct. 12, 1858	XXII.
19863	Merrill, R	Fence-post	April 6, 1858	IX.
19434	Merrill, Rensselaer	Fence, field, device for connecting the panels of	Feb. 23, 1858	IX.
20725	Merritt, Benjamin, jr	Fish at sea, net for catching	June 29, 1858	XXII.
19305	Merwin, Abraham T	Boots and shoes, method of attaching India-rubber soles to	Feb. 9, 1858	XVI.
22086	Meschutt, James M	Tongs for coal, &c	Nov. 16, 1858	XVII.
20288	Meyer, Henry	Mill for treating Chinese sugar-cane	May 18, 1858	XIII.
20439	Michel, F. W., W. Wilcox, and H. T. Miller	Shoe, over, straw and wood	June 1, 1858	XVI.
19096	Michener, William R	Valve, steam	Jan. 12, 1858	VI.
19789	Mickles, M. L., and L. S. Olmsted	Cars, railroad, ticket-holder for	Mar. 30, 1858	X.
19738	Mihan, P., assignor to P. Mihan and G. Davis	Egg-beater	Mar. 23, 1858	XVII.
19114	Mihan, Patrick, assignor to himself and Gilman Davis.	Stoves, gas	Jan. 12, 1858	V.
21896	Miles, Jasper S	Glass, ornamenting	Oct. 26, 1858	XVIII.
20654	Millar, John	Car-seats, railroad	June 22, 1858	X.
21800	Millar, W., assignor to himself and John Nutt	Sewing-machine	Oct. 12, 1558	III.
20886	Miller, A. C	Sawing-machine, carriage for	July 13, 1858	XIV.
20726	Miller, Alexander	Gauge-cock and alarm-whistle	June 29, 1858	VI.
21079	Miller, David L.	Presses, mode of operating	Aug. 3, 1858	XII.
19254	Miller, George	Bedstead, invalid	Feb. 2, 1858	XVII.
19307	Miller, Henry	Wood, clamp for holding rectangular pieces of, while being bored, tapped, &c.	Feb. 9, 1858	XIV.
	Miller, H. T. (See Michel, Wilcox, & Miller.)			

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Miller, Henry. (See Miller & Reamer.)			
19646	Miller, John G	Door-register	Mar. 16, 1858	XIV.
21689	Miller, L. H	Lock, bank	Oct. 5, 1858	II.
20180	Miller, Lewis, assignor to C. Aultman & Co., (No. 1.)	Harvesters	May 4, 1858	I.
20181	Miller, Lewis, assignor to C. Aultman & Co., (No. 2.)	Harvesters	May 4, 1858	I.
20182	Miller, Lewis, assignor to C. Aultman & Co., (No. 3.)	Harvesters	May 4, 1858	I.
20243	Miller, Lewis, assignor to Aultman & Co	Harvesters, finger or guard for	May 11, 1858	I.
21209	Miller, Max	Lantern for burning coal-oil	Aug. 17, 1858	V.
	Miller, S. W. (See Hay, Adam, assignor.)			
19608	Miller, Samuel, and William Gates, jr., assignors to William Gates, jr.	Match-machine	Mar. 9, 1858	XXII.
20391	Miller, W., assignor to himself and D. S. French	Knife-cleaner	May 25, 1858	XVII.
20763	Miller, W., assignor to himself and W. P. Prescott.	Sewing-machine	June 29, 1858	III.
19864	Miller, W. K.	Harvester	April 6, 1858	I.
19306	Milliken, James	Railroad-chairs, manufacture of wrought-iron	Feb. 9, 1858	IX.
19148	Mills, P. W	Threshing-machine	Jan. 19, 1858	I.
22189	Mills, R. L.	Gauge-cock	Nov. 30, 1858	VI.
21171	Mills, S. S	Fibre from the pulp in hemp leaves, machine for separating the.	Oct. 12, 1858	III.
20213	Miltenberger, Thomas	Photographs, compound	May 11, 1858	XVIII.
21613	Minard, A	Dredging machine	Sept. 28, 1858	IX.
22087	Miner, John, and Silas Merrick	Wash-board	Nov. 16, 1858	XVII.
	Mingis, James. (See Stancliff & Mingis.)			
22190	Minnich, S.	Sheep, apparatus for holding	Nov. 30, 1858	I.
19039	Mitchell, Abner	Brooms, construction of	Jan. 5, 1858	XVII.
19040	Mitchell, George A	Boots and shoes, metal tips for toes of	Jan. 5, 1858	XVI.
632	Mitchell, George A.	Boots and shoes, metal tips for toes of	Dec. 7, 1858	Reissue.
21434	Mitchell, James	Reaping-machine, binding attachment to	Sept. 7, 1858	I.

20813	Mitchell, Jeremiah	Harvesters	July 6, 1858	I.
21843	Mitchell, John B	Fence, field	Oct. 19, 1858	IX.
19113	Mitchell, V. N., assignor to himself and H. A. Area and C. N. White.	Carriage, shafts and poles to, attaching	Jan. 12, 1858	X.
22000	Mix, E. M. and J. E., assignors to themselves and C. D. Johnson.	Lock, pad	Nov. 2, 1858	II.
540	Moffitt, John R.	Separator, grain	Mar. 23, 1858	Reissue.
19865	Moffitt, John R.	Threshing-machine	April 6, 1858	I.
19814	Monestier, J., assignor to R. F. Spangenberg	Musicians, hand-exercise for	Mar. 30, 1858	XVIII.
603	Monnier, A.	Acid, sulphuric, manufacture of	Sept. 21, 1858	IV.
20291	Monnier, Alfred	Zinc, metallic, manufacture of	May 18, 1858	II.
20655	Monnier, Alfred	Sulphurets, metallic, treatment of	June 22, 1858	IV.
19376	Monnin, Charles	Ice spur	Feb. 16, 1858	XXII.
21267	Monroe, Freedom	Harnesses	Aug. 24, 1858	XVI.
	Monroe, J. (See Frost & Monroe)			
19150	Monson, Charles	Tube joint, gas	Jan. 19, 1858	II.
536	Monson, Charles	Gas-tube joint	Mar. 9, 1858	Reissue.
19944	Monson, Charles	Pipes, gas, conduit joint for	April 13, 1858	II.
22027	Montague, Charles	Printing-press	Nov. 9, 1858	XVIII.
20167	Montgomery, James	Boiler, steam	May 4, 1858	VI.
21013	Montgomery, James	Boilers, steam, grates for	July 27, 1858	IX.
22373	Montgomery, James	Propeller, buoyant	Dec. 21, 1858	VII.
22444	Montgomery, R	Pavement, iron	Dec. 28, 1858	IX.
	Moody, B. D. (See Davis, Abbott R., assignor.)			
21435	Moon, Joseph D	Callipers and dividers	Sept. 7. 1858	VIII.
21015	Moore, C	Sewing-machine	July 27, 1858	III.
19149	Moore, Charles	Press for packing the pulp of linseed or other seeds preparatory to extracting the oil from them.	Jan. 19, 1858	XII.
19708	Moore, Charles	Press for extracting oil from linseed	March 23, 1858	XII.
20290	Moore, Charles	Mills, chasing	May 18, 1858	XIII.
19436	Moore, Daniel	Tongs, fire	Feb. 23, 1858	V.
19308	Moore, E., William Clark, and James Lindsey	Stave-machine	Feb. 9, 1858	XIV.
22301	Moore, F. H	Stair-sweeper	Dec. 14, 1858	XVII.
21614	Moore, H. W	Car-wheels, cast-iron	Sept. 28, 1858	X.
19813	Moore, Isaac, assignor to himself and Francis Gore.	Steering-apparatus	March 30, 1858	VII.
	Moore, Jacob. (See Hough & Moore.)			
21354	Moore, Lewis	Seeding-machine	Aug. 31, 1858	I.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Moore, Solomon K. (See Dulaney, George L., assignor.)			
19255	Moore, Solomon P	Hemp-brake	Feb. 2, 1858	III.
21108	Moore, T. W., assignor to Elliott & Moore	Beef and other steaks tender, machine for making	Aug. 3, 1858	XVII.
	Moore, W. (See Carhart & Moore.)			
22146	Moore, William, assignor to George L. Cameron	Lock	Nov. 23, 1858	II.
22191	Moran, Edward	Valve-gear of steam-engine	Nov. 30, 1858	VI.
20656	Morehouse, W	Seeding-machine	June 22, 1858	I.
19866	Moorewood, Edmund, and George Rogers	Metal-plates, coated	April 6, 1858	II.
517	Morey, C., and J. B. Johnson, assignors to J. M. Singer and Edward Clark.	Sewing-machine	Jan. 12, 1858	Reissue.
518	Morey, C., and J. B. Johnson, assignors to J. M. Singer and Edward Clark.	Sewing-machine	Jan. 12, 1858	Division of reissue.
19667	Morfit, Campbell	Soap, process of making	March 16, 1858	IX.
21670	Morgan, B. S	Cultivator	Oct. 5, 1858	I.
	Morgan, B. S. (See Seymour & Pease, assignors.)			
	Morgan, D. S. (See Seymour, W. H., and D. S. Morgan.)			
	Morgan, D. S. (See Platt, N., assignor.)			
20501	Morgan, E	Shingle-machines, device for operating the bolt to obtain taper in.	June 8, 1858	XIV.
19199	Morgan, Elijah	Shingle-machine	Jan. 26, 1858	XIV.
20502	Morgan, Jesse	Tanning, method of	June 8. 1858	XVI.
21268	Morgan, Mirick	Rake, horse	Aug. 24, 1858	I.
21210	Morley, Franklin A	Steering-apparatus	Aug. 17, 1858	VII.
20574	Morrell, Benjamin D	Washing-machine	June 15, 1858	XVII.
22192	Morrill, A. R	Valves of steam-engine	Nov. 30, 1858	VI.
	Morrill, Amos. (See Russill & Morrill.)			
20289	Morrill, Oscar F	Lamps, aerovapor burners for	May 18, 1858	V.
21691	Morris, David A	Iron, sheet, rolls for making	Oct. 5, 1858	II.
21692	Morris, David A	Hammer and anvil, trip	Oct. 5, 1858	II.
21772	Morris, David A	Iron, sheet, manufacture of	Oct. 12. 1858	II.

21014	Morris, E	Railroad-rails, splice pieces for	July 27, 1858	IX.
	Morris, George W. (See Solomon & Morris.)			
22445	Morris, Henry	Motion, rotary, device for transmitting	Dec. 28, 1858	XIII.
	Morris, James. (See Corbin & Morris.)			
	Morrison, Fuller, and Warren. (See Hathaway, David, assignor.)			
20082	Morrison, D. H	Bridges, truss, metallic-shoe for	April 27, 1858	IX.
21865	Morrison, Thomas, assignor to A. S. Solomons	Chronometer-escapement	Oct. 19, 1858	VIII.
22374	Morse, Albert W	Seeding-machine	Dec. 21, 1858	I.
	Morse, G. A. (See Williams & Morse.)			
20503	Morse, G. W	Fire-arms, breech-loading	June 8, 1858	XIX.
20214	Morse, George W	Cartridge case	May 11, 1858	XIX.
20727	Morse, George W	Cartridges	June 29, 1858	XIX.
19815	Morse, J. H., assignor to himself and L. Patee	Lock, permutation	March 30, 1858	II.
19435	Morse, Stephen	Car-springs, railroad	Feb. 23, 1858	X.
	Morse, T L. (See Disston & Morse.)			
20922	Morse, W., and J. Hughes, assignors to G. H. & A. F. Devereux, and O. W. & E. E. Barrett.	Stamps, hand	July 13, 1858	XVIII.
21615	Moses, Israel	Wagon, ambulance	Sept. 28, 1858	X.
20361	Moses, Oren	Straw-cutter	May 25, 1858	I.
19198	Moseir, P. C	Planter, corn	Jan. 26, 1858	I.
	Moss, Edward. (See Klemm, Theodor, assignor.)			
20887	Moul, C	Reaping and mowing machine	July 13, 1858	I.
21616	Moulson, John	Key-hole stop	Sept. 28, 1858	II.
21617	Mulholland, William	Lamp	Sept. 28, 1858	V.
19309	Mullen, A. J., and Robert Hall	Bricks, mode of burning	Feb. 9, 1858	XV.
22193	Muller, George	Wood, angular pieces of, machine for cutting curvilinear surfaces on.	Nov. 30, 1858	XIV.
20888	Muma, Jacob	Watches, escapement of	July 13, 1858	VIII.
19200	Mumma, J. H	Straw-cutter	Jan. 26, 1858	I.
20504	Munroe, B. B	Wagons, &c., brake for	June 8, 1858	X.
22446	Murphy, John	Fastener, blind	Dec. 28, 1858	II.
19790	Murray, Archibald	Wrench	March 30, 1858	II.
	Murray, B. (See Van Doren, John, assignor.)			
	Murray, B. (See Glover, Carlos W., assignor.)			
	Murray, Bronson. (See Van Doren, John, assignor.)			
22259	Murray, Bronson, and John Van Doren	Harvesters, corn	Dec. 7, 1858	I.
20608	Murrill, J. H., assignor to himself, and J. Flynn, and P. Emrich.	Cannon, breech-loading	June 15, 1858	XIX.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19816	Musgrave, T., assignor to Anna L. Musgrave	Wool, machine for burring	March 30, 1858	III.
19256	Musser, William R., and John Coleman	Press, tobacco	Feb. 2, 1858	XII.
21436	Myers, F. R., and F. H. Furniss	Cars, railroad, couches for	Sept. 7, 1858	X.
21976	Nagele, John	Presses for embossing and figuring velvet, &c	Nov. 2, 1858	XXII.
22302	Nance, Z. F	Irregular forms, machine for turning	Dec. 14, 1858	XIV.
21016	Nash, E. H	Milk, closet for	July 27, 1858	XVII.
20083	Natcher, G	Millstone dress	April 27, 1858	XIII.
20084	Natcher, G	Millstone dress	April 27, 1858	XIII.
	Nathurst, Rudolph A. (See Stewart, J. L., assignor.)			
21897	Naughten, James	Refrigerator	Oct. 26, 1858	XVII.
	Neal, Benjamin F. (See Floyd, Thos., assignor.)			
19438	Neal, Daniel B	Planter, cotton-seed	Feb. 23, 1858	I.
20575	Neal, Daniel B	Seeding-machine	June 15, 1858	I.
21269	Neal, Daniel B	Harrow	Aug. 24, 1858	I.
19257	Neal, W. W	Washing-machine	Feb. 2, 1858	XVII.
22130	Nece, J	Saddle-trees	Nov. 23, 1858	XVI.
20577	Neer, C	Cracker-machine	June 15, 1858	XVII.
20576	Neer, Charles	Window blinds, metallic	June 15, 1858	IX.
1025	Neidig, H. (A)	Bedstead	July 13, 1858	Design.
1024	Neidig, H. (B)	Bedstead	July 13, 1858	Design.
21618	Nelson, J. H	Planing irregular surfaces, machine for	Sept. 28, 1858	XIV.
21437	Nelson, John	Harvesters, raking attachment to	Sept. 7, 1858	I.
20889	Nelson, M	Propeller, boat	July 13, 1858	VII.
19576	Nelson, N. C	Skirt supporter	March 9, 1858	XXI.
21898	Nelson, Robert	Water, device for elevating, by the combustion of a volatilizable hydro-carbon.	Oct. 26, 1858	XI.
21438	Nelson, S. D	Scythe-blade	Sept. 7, 1858	II.
	Nettleton, Stevens, &c. (See Hendrick, Joseph E., assignor.)			
	Nettleton, Willford H. (See Harkness, Hiram W., assignor.)			

	Nettleton, Willford H. (See Raymond, Charles, assignor.)			
	Neuer, George H. (See Regan, Henry W., assignor)			
21619	Nevins, W. R., and J. J. Yates	Bread and cracker machine	Sept. 28, 1858	XVII.
21620	Nevins, W. R , and J. J. Yates	Oven, baker's	Sept. 28, 1858	V.
22194	Nevison, J. and E	Plough, under-drain	Dec. 1, 1858	IX.
20292	Nevison, James	Lath-machines, method of feeding the bolt in	May 18, 1858	XIV.
	Newark Machine Company. (See How, Frederick W., assignor.)			
21621	Newbrough, John B.	Adding numbers, machine for	Sept. 28, 1858	VIII.
19327	Newbury, F. D., assignor to Richard V. De Witt, jr.	Fire-arms	Feb. 9, 1858	XIX.
19739	Newbury, F. D., assignor to R. V. De Witt, jr	Fire-arms, revolving	March 23, 1858	XIX.
20765	Newbury, F. D., assignor to R. V. De Witt, jr	Fire-arms, revolving	June 29, 1858	XIX.
204	Newbury, Frederick D	Fire-arms, revolving	Sept. 28, 1858	Add'l imp't.
20890	Newell, George M	Hemp-brake	July 13, 1858	III.
21270	Newell, John W.	Fabrics, elastic	Aug. 24, 1858	III.
20891	Newell, W.	Coffee, apparatus for cleaning and polishing	July 13, 1858	I.
	New England Pin Company. (See Van Vliet, Cornelius W., assignor)			
	New England Screw Company. (See Kendall & Hunt, assignors)			
20293	Newhall, H. A	Cars, railroad, safety attachment for	May 18, 1858	X.
22131	Newlove, W	Gate, farm	Nov. 23, 1858	IX.
21514	Newman, M.	Meat cutter	Sept. 14, 1858	XVII.
19439	Newton, Abner N.	Sewing-machine	Feb. 23, 1858	III.
22028	Newton, Daniel	Shears for cutting sheet metal	Nov. 9, 1858	II.
	Newton, G. (See Conklin & Newton.)			
21017	Newton, O.	Boiler, steam	July 27, 1858	VI.
	New York Car and Steamboat Gas Company. (See Bidwell S., assignor.)			
19647	Nichols, Alfred E	Bobbins, spinning	March 16, 1858	III.
21080	Nichols, F. B	Printing-press	Aug. 3, 1858	XVIII.
	Nichols, George W. (See Ball. T., assignor.)			
	Nichols, J. R. (See Ingalls & Nichols.)			
	Nicolson, Samuel. (See Gwynne, James S., assignor.)			
21899	Nicolson, Samuel	Railways, street rails for	Oct. 26, 1858	IX.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22447	Niles, Peter H	Lathe for turning masts, &c	Dec. 28, 1858	XIV.
19258	Nishwitz, F	Casting wheels, flasks for	Feb. 2, 1858	II.
	Nishwitz, F. (See Hoyt & Nishwitz.)			
19377	Nishwitz, Frederick	Harvester	Feb. 16, 1858	I.
20294	Nixon, Martin	Paper pulp, preparation of fibre for	May 18, 1858	III.
19201	Noble, Butler G	Tanning leather	Jan. 26, 1858	XVI.
21844	Noble, James	Iron, rolls for planishing	Oct. 19, 1858	II.
20362	Noble, James M	Bed-bottom	May 25, 1858	XVII.
21572	Noblet, Samuel	Nuts from unscrewing, mode of preventing	Sept. 21, 1858	II.
	Noe, J. C. (See Perry, James, assignor.)			
19867	Noette, F	Wood, machine for splitting	April 6, 1858	XIV.
21211	Noney, A. W	Carpet cleaner	Aug. 17, 1858	XVII.
21622	Norman, James, and Aaron R. McLean	Marble stone, etc., machine for sawing	Sept. 28, 1858	XV.
21693	Normandy, A	Distillation of fresh water from salt water	Oct. 5, 1858	IV.
20363	Norris, J. A	Journal-boxes	May 25, 1858	X.
22195	Norris, Martin	Auger for wood	Dec. 1, 1858	XIV.
534	Norris, Septimus	Locomotive engines, running-gear of	March 2, 1858	Reissue.
	North, Chase, and North. (See Smith & Brown.)			
	North, Chase, and North. (See Smith & Brown.)			
22147	North, Gibson, assignor to North, Chase, and North.	Stove, cooking	Nov. 23, 1858	V.
19868	North, Henry S	Fire-arms, revolving, removable rammer of	April 6, 1858	XIX.
574	North, J., assignor to A. Hardy, assignor to S. T. Bacon.	Paper, machine for folding	July 27, 1858	Reissue.
21172	North, John, assignor through mesne assignments to Steuben T. Bacon.	Paper, machine for folding	Aug. 10, 1858	XVIII.
20295	Norton, H. & J S. B	Apples, device for slicing	May 18, 1858	XVII.
20215	Notman, George	Harvesters, binding device for	May 11, 1858	I.
19945	Nowlan, Samuel	Metal beams, connecting rigidly the ends of	April 13, 1858	II.
20002	Nowlan, Samuel	Mangle, domestic	April 20, 1858	XVII.
20657	Nowlan, Samuel	Ships and other vessels, air-cells for giving buoyancy to.	June 22, 1858	VII.

	Nutt, John, *et al.* (See Miller, W., assignor.)			
	Nutt, John. (See Miller, W., assignor.)			
22448	Nuttall, James	Railing, iron, construction of	Dec. 28, 1858	IX.
20168	Nuttall, Richard, and John Kirkpatrick	Screw cutting, chuck for	May 4, 1858	II.
21144	Nutting, R	Grain, machine for fanning and assorting	Aug. 10, 1858	XIII.
21236	Nutz, Leonard N., assignor to Irwin B. Randle and Elias Hibbard.	Addometer	Aug. 17, 1858	VIII.
21977	Nyce, Benjamin M	Refrigerator	Nov. 2, 1858	XVII.
20506	Oakes, John	Altitudes, sun's, heliographic instrument for taking the	June 8, 1858	VIII.
20505	Oakes, W. N	Irregular forms, machine for cutting	June 8, 1858	XIV.
	Obdyke, William. (See Austin, William, assignor.)			
21694	O'Byrne, James, and S. H. Yokum	Steam water-tank	Oct. 5, 1858	VI.
21355	Odiorne, Henry B	Sewing-machines, hemming-guides for	Aug. 31, 1858	III.
19895	Okey, J. B, assignor to himself and W. Y. Wiley	Straw-cutter	April 6, 1858	I.
20270	Oliver, Thomas	Cotton, machine for cleaning	May 18, 1856	III.
19097	Olmstead, David G	Gins, cotton	Jan. 12, 1858	III.
19202	Olmstead, David G	Press, cotton	Jan. 26, 1858	XII.
19709	Olmstead, David G	Bale ties, cotton	Mar. 23, 1858	XII.
	Olmstead, L S. (See Mickles & Olmstead.)			
21173	Olmstead, Lorenzo B	Ordnance, compound shell for	Oct. 12, 1858	XIX.
	Olmstead, Lucius H. (See Manning, William H., assignor.)			
20296	O'Neil, John K	Lamp, vapor, burner for	May 18, 1858	V.
21695	Oot, Adam	Apple-paring knife	Oct. 5, 1858	XVII.
22237	Opp, Henry	Harvester	Dec. 7, 1858	I.
19648	Oppenheimer, Solomon	Pail, milking	Mar. 16, 1858	XVII.
19259	Orange, Samuel J.	Harrow	Feb. 2, 1858	I.
21439	Orange, Samuel J., and George Beidelman	Harrows	Sept. 7, 1858	I.
22238	Orr, Adrian V. B., and Gideon Bantz	Nail, wrought, machine	Dec. 7, 1858	II.
19041	Orr, James F	Gin, cotton	Jan. 5, 1858	III.
20923	Orr, H., assignor to William M. Griffith & Co	Grain, machine for cleaning	July 13, 1858	I.
	Osborn, L. A. (See Mann, R. J., assignor.)			
20578	Osborn, M	Vessels, sunken, apparatus for raising	June 15, 1858	VII.
631	Osborn, Marmaduke	Felting for coats, hats, &c	Dec. 1, 1858	Reissue.
20216	Osgood, Enoch	Gin, cotton	May 11, 1858	III.
21145	Osgood, H B	Scales, counter	Aug. 10, 1858	XII.
19203	Osgood, James W	Valves, steam throttle	Jan. 26, 1858	VI.
19440	Osgood, Pelatiah	Railroad-track cleaner	Feb. 23, 1858	IX.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21774	Ostrander, J., and J. S. Heartt	Bricks, fire, manufacture of	Oct. 12, 1858	XV.
21271	Otis, E. Graves	Oven	Aug. 24, 1858	V.
22132	Oudry, Charles Francis Leopold	Preserving surfaces of cast or wrought iron	Nov. 23, 1858	IV.
21081	Outten, George F	Whiffletree, safety	Aug. 3, 1858	X.
21440	Owen, Benjamin	Planter, seed	Sept. 7, 1858	I.
20892	Owen, J. E., C. Lane, and E. G. Dyer	Threshing-machine, endless chains for	July 13, 1858	I.
20170	Packard, Reuben	Hoisting-machine	May 4, 1858	XII.
20728	Packer, Henry H	Drill, hand	June 29, 1858	II.
21696	Page, Charles	Cars and locomotives when without steam, windlass for moving.	Oct. 5, 1858	X.
20507	Page, Charles G	Head-rest, combined umbrella and	June 8, 1858	X.
22239	Page, Clark D	Kiln, lime	Dec. 7, 1858	XV.
20579	Page, E	Clothes-frame	June 15, 1858	XVII.
19310	Page, Enos	Churn	Feb. 9, 1858	I.
	Page, John D. (See Woodworth & Page.)			
	Paine, Charles F., deceased, Joseph Eaton, administrator of.	Presses, hay	April 22, 1858	Extension.
22219	Paine, Henry M	Air-engine	Nov. 30, 1858	XI.
21082	Painter, W	Money table	Aug. 3, 1858	XXII.
21356	Painter, William	Car-seats	Aug. 31, 1858	X.
22029	Palmenbuerg, Joseph R	Galvano-electric machine	Nov. 9, 1858	VIII.
	Palmer, A. (See Hill, Samuel L., assignor.)			
21775	Palmer, Arnold	Paper-clamps	Oct. 12, 1858	XVIII.
	Palmer, George. (See Keeport & Palmer.)			
	Palmer, George M. (See Suter & Palmer.)			
21176	Palmer, Hiram	Life-preserver	Oct. 12, 1858	VII.
980	Palmer, Peter A.	Stove	Jan. 12, 1858	Design.
21623	Palmer, William	Fire-arm, revolving	Sept. 28, 1858	XIX.
	Pardee, John H. (See Hinman, George, assignor.)			
19511	Parham, John and Samuel P	Hydrant	Mar. 2, 1858	XI.
20085	Parisen, William O	Awning, metal	April 27, 1858	XXII.
20003	Parker, E	Corn-sheller	April 20, 1858	I.

20440	Parker, E	Planter, seed	June 1, 1858	I.
20814	Parker, J. J	Apples, machine for paring, slicing, and coring	July 6, 1858	XVII.
20580	Parker, Joseph	Bedstead, invalid	June 15, 1858	XVII.
	Parker, S. A. W., jr. (See Kinsley & Parker.)			
19662	Parker, Sidney, assignor to himself and Leonard Westbrook and Hugh Herringshaw.	Sewing-machine	Mar. 16, 1858	III.
	Parkhurst & Byam. (See Byam & Parkhurst.)			
19442	Parkhurst, H. A	Harvester	Feb. 23, 1858	I.
21357	Parkhurst, H. C	Gin, cotton	Aug. 31, 1858	III.
532	Parkhurst, S. R	Carding-machine	Feb. 23, 1858	Reissue.
20086	Parkhurst, S. R	Gin, cotton	April 27, 1858	III.
	Parkinson, Hardy, & Bates. (See Hardy & Parkinson, assignors.)			
19379	Parks, Nathaniel	Magnet, receiving	Feb. 16. 1858	VIII.
21697	Parmelee, Dubois D	Caoutchouc, tools for manufacturing goods of	Oct. 5, 1858	IV.
19380	Parrish, Stephen E	Car-wheels, railroad	Feb. 16, 1858	X.
21358	Parson, L. H., and George Houston	Rake, horse	Aug. 31, 1858	I.
	Parsons, Henry S. (See Barnes, Stephen, assignor)			
20581	Partridge, W., jr., and G. W. Shaw	Grain, machine for cleaning	June 15, 1858	I.
20660	Past, J. C	Saw-mills, method of clamping and laterally feeding the log in.	June 22, 1858	XIV.
	Patee, L. (See Morse, J. H., assignor.)			
	Patrick; Robert M. (See Perkins, John M., assignor.)			
	Patterson, C S. (See Shaw, Thomas, assignor.)			
19378	Patterson, James W	Harvesters, raking attachment for	Feb. 16, 1858	I.
21146	Paulus, E	Time-keepers, escapement for	Aug. 10, 1858	VIII.
19710	Pauvert, C	Compounds for hardening iron and steel	Mar. 23, 1858	IV.
19577	Pawling, Joseph H	Snow-plough	Mar. 9, 1858	IX.
21019	Payne, F. C	Mosquito bars, means of adjusting	July 27, 1858	XVII.
	Payne, George W. (See Wilson & Payne.)			
21978	Payne, Reuben L	Trap for animals	Nov. 2, 1858	XXII.
22196	Peabody, John F	Railway bars, securing the ends of	Nov. 30, 1858	IX.
21359	Pearsall, A	Welding bellows pipe	Aug. 31, 1858	II.
	Pearson, Hiram E. (See Batchelder, Asahel G., assignor.)			
19204	Pearson, John	Car-coupling, railroad	Jan. 26, 1858	X.
21900	Pearson, John, jr	Stove, cooking	Oct. 26, 1858	V.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Pease, H. (See Seymour & Pease.)			
20893	Peatfield, J.	Knit gloves, manufacturing	July 13, 1858	III.
21624	Peatfield, S	Car-springs, India rubber	Sept. 28, 1858	X.
22197	Peberdy, Samuel	Skirts, ladies' hoop	Nov. 30, 1858	XXI.
19311	Peck, Elias	Cotton-fields, machine for cutting brush from	Feb. 9, 1858	I.
19472	Peck, Russel, assignor to himself and G. H. Wooster.	Clock-movements, lathe for cutting tenons for	Feb. 23, 1858	VIII.
22375	Peckham, John	Shirts, draughting	Dec. 21, 1858	XVII.
	Peckover, J. (See Adams & Peckover.)			
22449	Pefley, Jacob	Lathe-machine	Dec. 28, 1858	XIV.
19581	Peirce, William	Pump, rotary	Mar. 9, 1858	XI.
19869	Pelletreau, Jesse W	Planting potatoes, machine for	April 6, 1858	I.
21588	Pemberton, Lemuel, administrator of John Pemberton, deceased.	Saw-mill	Sept. 21, 1858	XIV.
21360	Penniston, George W.	Bales, &c., cotton, machine for tightening and securing metallic bands for.	Aug. 31, 1858	XII.
20021	Pepper, Calvin, assignor to Nelson R. Scovel	Cars, railroad, method of ventilating	April 20, 1858	X.
22331	Pepper, Calvin, assignor to himself and John G. Treadwell.	Gas for heating and illuminating purposes, method of applying.	Dec. 14, 1858	V.
21361	Pepper, T. W.	Sewing-machines, oiling the threads for	Aug. 31, 1858	III.
19151	Perham, David	Cranberry separator	Jan. 19, 1858	I.
19099	Perin, Ezra and John Z.	Sawing cross-cut, horse-power machine for	Jan. 12, 1858	XIV.
20441	Perkins, C. H.	Horse-shoes, machine for making	June 1, 1858	II.
19533	Perkins, John M., assignor to Robert M. Patrick	Lock	Mar. 2, 1858	II.
19098	Perkins, Nahum S. C.	Engines, steam, arrangement for	Jan. 12, 1858	VI.
	Perkins, Lazell, & Co. (See Ferguson, James, assignor.)			
	Perkins, S. R. (See German & Perkins.)			
19791	Perley, Charles	Desk-seats for schools	Mar. 30, 1858	XXII.
21979	Perley, Charles	Boat-davits, tripping block for	Nov. 2, 1858	VII.
20169	Perrine, William C	Meters, fluid	May 4, 1858	XI.
	Perry, A. G. (See Smith & Perry.)			

20582	Perry, C. P.	Straw-cutter	June 15, 1858	I.
19946	Perry, David	Skirts, cords for	April 13, 1858	XXI.
20955	Perry, E. H.	Chain, machine for making	July 20, 1858	II.
21362	Perry, Edwin H	Chain, machine for making	Aug. 31, 1858	II.
22266	Perry, Horatio O., assignor to himself and Sidney Sheppard.	Propellers, means of securing the arms to the hub of.	Dec. 7, 1858	VII.
20815	Perry, J. G.	Sausage-filler	July 6, 1858	XVII.
19610	Perry, James, and E. Fitzgerald, assignors to James Perry, Daniel Fitzgerald, and Horatio Bogert.	Dough, raising	Mar. 9, 1858	XVII.
22148	Perry, James, assignor to J. C. Noe	Sewing-machine	Nov. 23, 1858	III.
19441	Perry, Philander	Mill, grain	Feb. 23, 1858	XIII.
21901	Perry, Philander	Car-coupling, railroad	Oct. 26, 1858	X.
20658	Perry, S	Lock, combination	June 22, 1858	II.
19100	Peter, Lewis	Engine, rotary steam	Jan. 12, 1858	VI.
21845	Petersen, Charles J. C	Coffee-roasters	Oct. 19, 1858	XVII.
22303	Petersen, Charles J. C	Boiler, steam	Dec. 14, 1858	VI.
21363	Petersen, Charles J. C	Corn-husker	Aug. 31, 1858	I.
22198	Petersen, Charles J. C	Valve-gear of locomotive engines	Nov. 30, 1858	VI.
	Peterson & Stuart. (See Horton, J., assignor.)			
	Peterson, Stuart, & Cresson. (See Delany & Martino, assignors.)			
	Peterson, Stuart, & Cresson. (See Cresson, Stuart, & Peterson)			
	Peterson, J. (See Reed, J A., assignor)			
	Peterson, Richard. (See Steffe, Horton, & Currie, assignors.)			
22199	Pettee, S. E.	Bag machines, &c., pasting apparatus for	Nov. 1, 1858	XVIII.
20217	Pettee, S. E., and E. G. Cobb	Stamp, hand, self-inking	May 11, 1858	XVIII.
21147	Pettet, W	Oven, bake	Aug. 10, 1858	V.
19101	Phelan, Michael, assignor to H. W. Collender	Billiard tables, cushions for	Jan. 12, 1858	XXII.
	Phelps, Lown, & Carver. (See Richmond & Pittock, assignors.)			
	Phelps, Pittock, & Richmond. (See Pittock, Richmond, & Phelps.)			
20087	Phelps, Charles	Envelopes for letters, &c	April 27, 1858	XVIII.
22030	Phelps, Ebenezer W	Bee-hive	Nov. 9, 1858	I.
19042	Phelps, George M	Electro-magnetic speed-governor	Jan. 5, 1858	VIII.
21980	Phelps, James N.	Printing-press, hand	Nov. 2, 1858	XVIII.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20297	Phelps. L. B	Planters, corn	May 18, 1858	I.
20393	Philbrick, David, assignor to himself and Elmer Townsend.	Last-holder, rotary	May 25, 1858	XVI.
	Phillips, J. (See Dewey & Phillips.)			
	Phillips, John. (See Cannon, Francis A., assignor.)			
19649	Phillips, Nathan M	Bedstead, spring	Mar. 16, 1858	XVII.
20298	Phillips, Nathan M	Lathe-dog	May 18, 1858	XIV.
19512	Picket, Warner, and Andrew Hills	Corn-husker	Mar. 2, 1858	I.
20364	Pierce, D	Clothes-pin	May 25, 1858	XVII.
22133	Pierce, George V. and Edwin A	Bustles for ladies' dresses	Nov. 23, 1858	XXI.
	Pierce, George W. (See Fuller & Pierce.)			
22450	Pilgrim, James	Cores for moulding plastic substance	Dec. 28, 1858	XV.
21515	Pilson, R	Looms, temples for	Sept. 14, 1858	III.
584	Pirsson, Joseph P	Engines, steam, surface-condensers for	Aug. 10, 1858	Reissue.
20128	Pitcher, Benjamin, assignor to himself, William Tobey, and John Anderson.	Bending mould-boards for ploughs	April 27, 1858	II.
	Pitkin & Wiard. (See Wiard, Thomas, assignor.)			
	Pittock, G. W. (See Richmond & Pittock, assignors)			
996	Pittock, G. W., G. G. Richmond, and C. Phelps, assignors to themselves and J. Lown.	Stoves, cooks'	April 6, 1858	Design.
21272	Plant, Increase C	Bales, &c., metallic bands or ties for	Aug. 24, 1858	XII.
21724	Plant, John, assignor to himself and George H. Plant.	Furnace for heating buildings	Oct. 5, 1858	V.
	Plant, P. (See Ford & Plant.)			
19896	Plant, P., assignor to himself and P. Hannay	Lamp	April 6, 1858	V.
21902	Platt, Edwin and Jacob B	Press, copying	Oct. 26, 1858	XVIII.
20659	Platt, Henry M	Plough	June 22, 1858	I.
21083	Platt, N	Carriage-wheels, hubs for	Aug. 3, 1858	X.
590	Platt, N., assignor to W. H. Seymour and D. S. Morgan.	Harvester	Aug. 31, 1858	Reissue.

591	Platt, N., assignor to W. H. Seymour and D. S. Morgan.	Harvester	Aug.	31, 1858	Division of reissue.
592	Platt, N., assignor to W. H. Seymour and D. S. Morgan.	Harvester	Aug.	31, 1858	Division of reissue.
593	Platt, N., a signor to W. H. Seymour and D. S Morgan.	Harvester	Aug.	31, 1858	Division of reissue.
22031	Plinta, Augustus	Railway bars, joints for securing the ends of	Nov.	9, 1858	IX.
22376	Plinta, Augustus	Railroad rails	Dec.	21 1858	IX.
20816	Plonk, Levi	Collars, horse, machine for stuffing	July	6, 1858	XVI.
19711	Plumb, Hiram	Turning tool-handles, etc., machine for	Mar.	23, 1858	XIV.
	Plummer, J. T. (See Kennedy & Plummer.)				
21020	Pohle, C. R. M	Time, combination of the needle and sun-dial to ascertain.	July	27, 1858	VIII.
21021	Pole, Joseph W	Locomotive-engines, grates for	July	27, 1858	VI.
22451	Pollard, Ezra	Clothes, pestle for cleansing	Dec.	28, 1858	XVII.
19205	Pollard, Horatio	Heel-spur to prevent slipping on ice	Jan.	26, 1858	XXII.
	Pomeroy, C. S. (See Behrens, H. J., assignor)				
20171	Pomroy, C	Pipe, cast-iron	May	4, 1858	II.
21903	Pond, Joseph F	Washing-machine	Oct.	26, 1858	XVII.
20924	Poole, R , assignor to himself and German H. Hunt.	Car-wheels, cooling	July	13, 1858	X.
20022	Poole, Robert, assignor to Robert Poole and German H. Hunt.	Casting car-wheels	April	20, 1858	II.
21625	Poole, T. W	Cultivator	Sept.	28, 1858	I.
566	Pope, A. R	Electro-magnetic alarms	June	8, 1858	Reissue.
20299	Poppenhusen, C	Whalebone, manufacture of artificial	May	18, 1858	XXII.
20894	Porter, C. T	Engines, steam, governor for	July	13, 1858	VI.
22377	Porter, David D	Gun-carriages, quoins for	Dec.	21, 1858	XIX.
21626	Porter, Emma T	Clothes-dryer	Sept.	28, 1858	XVII.
19152	Porter, Luther E	Seaming-machine, double	Jan.	19, 1858	II.
22200	Porter, Rufus	Engine, steam	Nov.	30, 1858	VI.
	Post & Burridge. (See Burridge & Post.)				
22442	Postley, Charles A	Bustle	Dec.	7, 1858	XXI.
	Potter & Bodine. (See Borden, J., assignor.)				
	Potter & Co. (See Vedder & Sanderson, assignors)				
	Potter & Co. (See Vedder & Ripley.)				
	Potter, Grover, & Baker. (See Blodgett, S. C., assignor.)				
19870	Potter, H. H	Sawing-machine, cross-cut	April	6, 1858	XIV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22304	Potter, Henry H	Carriage-seats, adjustable	Dec. 14, 1858	IX.
	Potter, Louis. (See Vedder & Ripley, assignors)			
19260	Potter, Nathaniel	Car-brake, railroad	Feb. 2, 1858	X.
22267	Potter, Robert M	Gas meters, valves for	Dec. 7, 1858	IV.
19578	Potts, Albert	Letter-boxes to lamp-posts, mode of attaching metallic.	Mar. 9, 1858	XXII.
22088	Potts, Jesse F	Vessels, centre-board for	Nov. 16, 1858	VII.
19513	Powell, James	Hydrant	Mar. 2, 1858	XI.
	Powell, James. (See Robbins & Powell, assignors.)			
21022	Powers, J. H	Gas-regulator	July 27, 1858	IV.
20366	Pratt, A. M	Seeding-machine	May 25, 1858	I.
	Pratt, Caleb, and T. Willis Pratt	Bridges, truss-frames for	Mar. 29, 1858	Extension.
21148	Pratt, E	Printing-ink rollers	Aug. 10, 1858	XVIII.
20365	Pratt, F. B , and T. Tylee	Washing-machine	May 25, 1858	XVII.
20530	Pratt, George, assignor to J. A. Ellis and J. E. Hazelton.	Table, extension	June 8, 1858	XVII.
989	Pratt S. F	Sewing-machines, tables for	Feb. 16, 1858	Design.
22240	Pratt, Samuel F	Sewing-machines	Dec. 7, 1858	III.
20661	Prentiss, E. F	Cleansing woollens, solutions for	June 22, 1858	IV.
210	Prescott, Jedediah	Gin feeder, cotton	Nov. 30, 1858	Add'l imp t.
	Prescott, W. P. (See Miller, W., assignor.)			
22241	Preston, E. A	Measuring and recording by the tape, method of	Dec. 7, 1858	VIII.
19948	Preston, John	Process of extracting fat oils from seeds	April 13, 1858	IV.
22201	Preston, O. W., jr.,	Pumps	Nov. 30, 1858	XI.
21364	Price, C. E , & J. Haythorn	Carding-machine	Aug. 31, 1858	III.
19947	Price, John T	Wheels of steam-vehicles, ploughs, &c., driving, giving adhesion to.	April 13, 1858	X.
19712	Prime, Bradley, L	Roofing-cement, composition for	Mar. 23, 1858	IX.
21149	Prindle, F B	Fire-arm, repeating	Aug. 10, 1858	XIX.
21212	Pritz, Adam	Drill, grain	Aug. 17, 1858	I.
	Proctor, H. M. (See Bancroft, N. W., assignor.)			
20662	Proctor, L. H	Coal-ashes, &c., apparatus for sifting	June 22, 1858	V.

20508	Prosser, Thomas	Bee-hive	June 8, 1858	I.
22149	Puffer, Milton G., assignor to Cyrus White and Lewis A. Corbin.	Envelopes, machine for making	Nov. 23, 1858	XVIII.
20583	Pugh, John	Car-wheels	June 15, 1858	X.
20367	Pullman, N	Switch, railroad	May 25, 1858	IX.
19261	Purchase, Thomas E	Bars, making railway	Feb. 2, 1858	II.
	Purdy, Albert G. (See Holmes, Alexander M., assignor.)			
20004	Pusey, L	Car-wheels, railroad, securing tires to	April 20, 1858	X.
20368	Pusey, L	Horse-power, governor for	May 25, 1858	XIII.
20442	Putnam, S. S	Pump	June 1, 1858	XI.
21213	Putnam, S. S	Nails, machine for forging	Aug. 17, 1858	II.
21636	Pye, Thomas L	Lock	Sept. 28, 1858	II.
22202	Quackenbush, Cornelius	Fences, field, brace-post for	Nov. 30, 1858	IX.
20817	Quackenbush, J. H	Car coupling, railroad	July 6, 1858	X.
	Quigley, J. (See Clare & Quigley.)			
20088	Quigley, M	Table, convertible extension	April 27, 1858	XVII.
20369	Quimby, A	Washing-machine	May 25, 1858	XVII.
19713	Quimby, David S	Stove-heating apparatus	Mar. 23, 1858	V.
	Quimby, E. M. (See Crossman & Quimby.)			
20443	Quinn, E	Pump-buckets	June 1, 1858	XI.
19206	Race, W., and S. R. C. Mathews	Hydrant	Jan. 26, 1858	XI.
20729	Racey, W. H	Lamp, vapor	June 29, 1858	V.
21627	Racey, W. H	Lamp	Sept. 28, 1858	V.
20818	Racine, L	Mill-stones, ventilating	July 6, 1858	XIII.
21698	Raezer, Mathias	Rake, hay	Oct. 5, 1858	I.
20509	Rarford, Philip H	Press, ratchet	June 8, 1858	XII.
21084	Ralston, A	Stove	Aug. 3, 1858	V.
21575	Ralston, Andrew	Churn	Sept. 21, 1858	I.
19262	Ramage, Joseph O	Plough	Feb. 2, 1858	I.
19949	Rand, A. C., and R. R. Johnson	Fog-bells	April 13, 1858	VII.
	Rand, Jacob B. (See Huntoon, Reuben K, assignor.)			
1057	Randall, A. C	Lockets	Oct. 19, 1858	Design.
21053	Randall, G. W., assignor to R. J. Todd	Lamp, vapor, burner for	July 27, 1858	V.
19381	Randall, H. H	Press, cotton	Feb. 16, 1858	XII.
	Randle, Irwin B. (See Nutz, L. N., assignor.)			
20370	Rands, C	Mill, flouring	May 25, 1858	XIII.
19792	Ransom, J. L	Brick-machine	Mar. 30, 1858	XV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20089	Rarey, G. S.	Churn	April 27, 1858	I.
	Rathbone & Co. (See Gibbs, S. W.)			
19650	Raub, Christian, (A)	Stove, cooking	Mar. 16, 1858	V.
19651	Raub, Christian, (B)	Stove, cooking	Mar. 16, 1858	V.
20584	Ray, Amos H.	Gas-burners	June 15, 1858	V.
22452	Ray, James S	Burnishing attachment for lathes	Dec. 28, 1858	II.
22220	Raymond, C., assignor to W. H. Nettleton	Sewing-machine	Nov. 30, 1858	III.
19612	Raymond, Charles, assignor to Willford H. Nettleton.	Sewing-machine	Mar. 9, 1858	III.
21054	Raymond, E. A., and C. Robitaille, assignors to themselves, J. B. Richards, and T. K. Austin.	Fire-arm, revolving	July 27, 1858	XIX.
21778	Raymond, N. C	Compositions used as building materials	Oct. 12, 1858	IV.
20683	Read, H. F., assignor to himself and Samuel J. Burr.	Stuffing boxes	June 22, 1858	XIII.
22032	Read, Hosea W	Harvester	Nov. 9, 1858	I.
1017	Read, J. A., assignor to D. Stuart and J. Peterson.	Stove	June 29, 1858	Design.
	Read, J. M. (See Copeland, Josiah.)			
21516	Reamer, Isaac, and Henry Miller	Harvester, corn	Sept. 14, 1858	I.
21846	Reaney, William	Plough	Oct. 19, 1858	I.
19579	Redhead, Joseph	Planter, seed	March 9, 1858	I.
22378	Redhead, Joseph	Levelling instruments, self-adjustable	Dec. 21, 1858	VIII.
20585	Reed, D. R., and J. E. Chapman	Sheep while being sheared, device for holding	June 15, 1858	I.
22305	Reed, George P	Time-pieces, escapement for	Dec. 14, 1858	VIII.
981	Reed, Henry G., assignor to himself and Charles E. Burton.	Tea-service	Jan. 12, 1858	Design.
20819	Reed, J	Leathering tacks, machine for	July 6, 1858	XVI.
22453	Reed, Jessee	Steering-apparatus	Dec. 28, 1858	VII.
21023	Reed, Lyman	Compounds for treating potato-rot	July 27, 1858	IV.
20300	Reeder, A	Ploughs, apparatus for clearing the coulters of	May 18, 1858	I.
21150	Rees, E. M	Hay-elevator	Aug. 10, 1858	I.
21725	Rees, Jacob, assignor to Jonah L. Rees	Barrels, machine for forming	Oct. 5, 1858	XIV.
21847	Reese, Adam R	Harvesters, raking attachment to	Oct. 19, 1858	I.

21024	Reeve, T. and J., and S. M. Tyler	Telegraph machines, printing, mode of operating the mechanism of.	July 27, 1858	VIII.
577	Reeves, Israel S., assignor to J. B. Slawson	Omnibus fare-box	Aug. 3, 1858	Reissue.
19471	Reeves, Israel S., assignor to J. B. Slawson	Omnibus fare-box	Feb. 23, 1858	X.
	Reeves, J. (See Hidden & Reeves.)			
19043	Reeves, John	Ships, construction of	Jan. 5, 1858	VII.
21801	Regan, Henry W., assignor to himself and George H. Neuer.	Pump	Oct. 12, 1858	XI.
20895	Rehahn, H.	Refrigerator	July 13, 1858	XVII.
22089	Rehn, Isaac	Melodeons, &c	Nov. 16, 1858	XVIII.
22033	Reichhold, Frederick	Umbrellas and parasols, frames for	Nov. 9, 1858	XXI.
21576	Reichmann, C	Lamp	Sept. 21, 1858	V.
20371	Reid, Daniel	Distilling spirits of turpentine, apparatus for	May 25, 1858	IV.
19207	Reighard, Jacob H	Lantern	Jan. 26, 1858	V.
19897	Reighard, Jacob H., assignor to himself, John Bird, and David Challiner.	Lantern	April 6, 1858	V.
19580	Reimann, H	Cigar-lighting cinders, apparatus for containing and igniting.	March 9, 1858	XXII.
19717	Reimann, Henrich	Cigar-lighting cinders	March 23, 1858	XXII.
21442	Reinert, W. S	Kneading-machine	Sept. 7, 1858	XVII.
	Remington, E. (See Sangster, A. W., assignor.)			
	Remington, Samuel. (See Thomas, John F., assignor.)			
20956	Rennie, A	Lathes, turning, method of feeding tool-carriage in	July 20, 1858	XIV.
21085	Resor, William	Broiling-furnace and cooking-range combined	Aug. 3, 1858	V.
203	Reuthe, F	Trap for animals	July 6, 1858	Ad'l imp't.
21302	Reuthe, Frederick, assignor to Moritz Loth	Trap for animals	Aug. 24, 1858	XXII.
1062	Reynolds, Edward, assignor to Thomas W. Brown	Stands, hat and cane	Nov. 16, 1858	Design.
20957	Reynolds, George	Axe-polls, machine for making	July 20, 1858	II.
20444	Reynolds, H. H	Truss-pads	June 1, 1858	XX.
21365	Reynolds, Joseph	Carpet-fastener	Aug. 31, 1858	XVII.
19793	Reynolds, O. L	Sewing-machine	March 30, 1858	III.
21214	Reynolds, Samuel D	Threshing-machine	Aug. 17, 1858	I.
20090	Reynolds, T. S	Printing-press	April 27, 1858	XVIII.
22454	Reynolds, Uel J	Trace-fastening	Dec. 28, 1858	XVI.
	Rhodes, Drake, and Collins (See Collins, J. J. G., assignor.)			
	Rhodes, John. (See Brown, Cyriel E., assignor.)			
	Rhodes, S. (See Clime, J. C., assignor.)			

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Riatti, Vincent. (See Corbelli & Riatti.)			
19153	Rice, Charles W., and John E. Harrington	Pendulum, compound	Jan. 19, 1858	VIII.
	Rice, D. H. (See Knight & Rice.)			
22379	Rice, George F	Boring wood, machine for	Dec. 21, 1858	XIV.
	Rice, John. (See Wood, William W. W., assignor.)			
19794	Rice, John W	Car-coupling, railroad	March 30, 1858	X.
21086	Rice, John W	Cars, brakes for railroad	Aug. 3, 1858	X.
22455	Rice, John W	Car-brakes, railroad	Dec. 28, 1858	X.
20820	Rice, Luther O	Carriage-springs, attaching	July 6, 1858	X.
	Rice, V. M. (See Buel & Barnes)			
	Rice, V. M. (See Sangster, A. W.)			
22102	Rich, Isaac, assignor to S. C. Arnold	Boot and shoe soles, instrument for trimming the edges of.	Nov. 16, 1858	XVI.
20372	Richard, A. C	Jack, lifting	May 25, 1858	XII.
19044	Richard, Albert C	Lanterns, attachment for lighting	Jan. 5, 1858	V.
21517	Richard, Albert C	Bale hoops, cotton, clasps for	Sept. 14, 1858	XI.
21848	Richard, Albert C	Bands, clasps for metallic or other flexible	Oct. 19, 1858	XII.
22243	Richards, Henry E	Furniture-casters, device for supporting	Dec. 7, 1858	XVII.
	Richards, J. B. (See Raimond & Robitaille, assignors.)			
19950	Richards, Samuel	Snow-plough	April 13, 1858	IX.
19443	Richards, Thomas	Valve, rotary	Feb. 23, 1858	VI.
	Richardson, Alpha, deceased, Hubbard, Harris, administrator of.	Leather, machinery for splitting strips or pieces of	April 17, 1858	Extension.
20925	Richardson, B., assignor to himself and the Hayden Manufacturing Company.	Thread, machinery for polishing	July 13, 1858	III.
	Richardson, George F. (See Lombard, Daniel, assignor.)			
1048	Richardson, Nathaniel P	Stove	Sept. 7, 1858	Design.
	Richardson, Nathaniel T., & Co. (See Stevens, William W., assignor.)			
	Richardson, S. (See Robins, Jabez, assignor.)			

21518	Richmond, A	Stoves, cooking	Sept.	14, 1858	V.
	Richmond, G. G. (See Pittock, Richmond, & Phelps.)				
20682	Richmond, G. G., and G. W. Pittock, assignors to themselves, C. Phelps, and J. Lown; and Pittock assigns his interest to D. B. Carver.	Stoves, cooking	June	22, 1858	V.
21152	Richmond, T. R	Seeding-machine	Aug.	10, 1858	I.
21443	Rickart, Alexander	Turning hubs, machine for	Sept.	7, 1858	XIV.
21928	Rider, Caleb, assignor to George T. McLauthlin	Water-motor	Oct.	26, 1858	XI.
21215	Rider, J	Fire-arm, revolving	Aug.	17, 1858	XIX.
20978	Rider, W., assignor to himself and J. B. Sweetland	Horse-power	July	20, 1858	XIII.
21303	Ridley, Henry, assignor to S. P. Thatcher and Walter Stillman.	Carpet-stretcher	Aug.	24, 1858	XVII.
21151	Rieseck, G	Valve, steam	Aug.	10, 1858	VI.
21087	Riggs, Joseph H	Yokes, ox	Aug.	3, 1858	I.
19263	Riker, William	Winch, safety	Feb.	2, 1858	XII.
20091	Riley, William	Trap, fly	April	27, 1858	XXII.
20373	Rimmington, George	Lamp for burning coal-oil, &c	May	25, 1858	V.
19514	Ring, Aaron	Seeding-machine	Mar.	2, 1858	I.
	Ripley, Ezra. (See Vedder & Ripley, assignors.)				
19872	Risher, T. A	Seeding-machine	April	6, 1858	I.
19716	Risher, Thomas A	Harvester, corn	Mar.	23, 1858	I.
19871	Risher, Thomas A	Seeding-machine	April	6, 1858	I.
	Rixford, Nathan. (See Dimock & Rixford.)				
19652	Roach, Lewis	Plough, gang	Mar.	16, 1858	I.
19653	Robb, James	Washing-machine	Mar.	16, 1858	XVII.
19449	Robbins, Chandler	Bedstead, wardrobe	Feb.	23, 1858	XVII.
21849	Robbins, Henry R	Alarm, burglars'	Oct.	19, 1858	XXII.
525	Robbins, Martin	Planter, corn	Feb.	9, 1858	Reissue.
21699	Robbins, Martin, and John L. Frishie	Indicator, water, for steam boilers	Oct.	5, 1858	VI.
22402	Robbins, Martin, and James Powell, assignors to James Powell.	Faucet	Dec.	21, 1858	XI.
20303	Roberts, A. J	Street sweeping machine	May	18, 1858	XXII.
19447	Roberts, Charles	Harvester	Feb.	23, 1858	I.
	Roberts, Cyrus. (See Bunsen & Roberts.)				
21275	Roberts, H. A	Stand, ice	Aug.	24, 1858	XVII.
	Roberts, J. E. (See Wood, Roberts, & Hubbell.)				
21274	Robertson, A	Packages for dry goods	Aug.	24, 1858	XXII.
560	Robertson, T. J. W	Sewing-machine	May	18, 1858	Reissue.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
599	Robertson, T. J. W	Sewing-machine	Sept. 14, 1858	Reissue.
22090	Robie, Harry, and Royal V	Churn	Nov. 16, 1858	I.
21577	Robins, Jabez	Harrow, rotary	Sept. 21, 1858	I.
19281	Robins, Jabez, assignor to himself, Daniel K. Haines, and S. Richardson.	Harrow	Feb. 2, 1858	I.
19582	Robinson, Charles	Chairs, sofas, etc , spring seats of	Mar. 9, 1858	XVII.
20092	Robinson, Charles	Bedstead, rail	April 27, 1858	XVII.
	Robinson, Charles. (See Thayer, C. B., assignor.)			
20093	Robinson, Charles E., and L. D. Sanborn	Leather from vats, apparatus for raising	April 27, 1858	XVI.
	Robinson, Chester G. (See Cradit, Nathaniel, assignor.)			
21367	Robinson, F. W	Threshing-machines, straw carriers of	Aug. 31, 1858	I.
21628	Robinson, F. W	Threshing-machine, riddles for	Sept. 28, 1858	I.
21366	Robinson, J. R. and H. S	Valve-cocks	Aug. 31, 1858	VI.
20301	Robinson, L	Seeding-machine	May 18, 1858	I.
22456	Robinson, Oliver	Bedstead-fastening	Dec. 28, 1858	XVII.
19444	Robinson, William	Stave-machine	Feb. 23, 1858	XIV.
20005	Robison, L. S.	Fence, field, portable	April 20, 1858	IX.
	Robitaille, C. (See Raymond & Robitaille)			
19312	Robjohn, Thomas	Organs, &c., pedals for	Feb. 9, 1858	XVIII.
19313	Rockwell, Charles E	Pipe, lead, machine	Feb. 9, 1858	II.
	Rockwell, L. A. (See Schuyler & Rockwell.)			
	Rockwell, R. D. (See Buell & Barnes, assignors)			
21700	Rockwell, Sidney S	Grafts, root, machine for cutting	Oct. 5, 1858	I.
	Rockwood, Aaron W. (See Barden, John S., assignor.)			
19446	Rodgers, James	Carriages, &c., boxes for receiving money in	Feb. 23, 1858	X.
20663	Roe, Henry A	Cheese-vat	June 22, 1858	XVII.
20302	Roester, A., and Charles Frey	Lanterns, self-lighting and extinguishing	May 18. 1858	V.
19951	Rogers, B. A	Carriage-wheels, tightening the spokes and fellies of.	April 13, 1858	X.

	Rogers Brothers' Manufacturing Co. (See Leonard, Allen, assignor)			
21444	Rogers, C. B. and J. and M. C.	Billiard-balls	Sept. 7, 1858	XXII.
19584	Rogers, D. B. S. and L.	Cultivator	Mar. 9, 1858	I.
21904	Rogers, Daniel J	Pump, mode of operating	Oct. 26, 1858	XI.
19448	Rogers, David B	Car-springs, railroad	Feb. 23, 1858	X.
21905	Rogers, E. C.	Lightning-rods, method of insulating and supporting.	Oct. 26, 1858	VIII.
19264	Rogers, F. O.	Carriages, adjustable axle-brace for	Feb. 2, 1858	X.
	Rogers, George. (See Moorewood & Rogers.)			
21368	Rogers, J	Shutter-operator	Aug. 31, 1858	II.
21398	Rogers, John T. B., assignor to George B. Sloat	Sewing-machines, regulating the tension of the thread in.	Aug. 31, 1858	III.
22306	Rogers, Robert E.	Steam-generator	Dec. 14, 1858	VI.
	Rogers, Robert S. (See Flint & Rogers)			
19445	Rogers, Seymour	Car-wheels, railroad	Feb. 23, 1858	X.
19715	Rogers. Thomas	Engines, steam, revolving cylinder	Mar. 23, 1858	VI.
20244	Rohr, D. E., assignor to himself and Thomas W. Davis.	Washing-machine	May 11, 1858	XVII.
	Roland, Isaac F. (See Kraatz, David K., assignor)			
19102	Rollin, Daniel G	Carriage-springs, equalizing	Jan. 12, 1858	X.
19450	Rollin, Daniel G	Springs, volute	Feb. 23, 1858	X.
20129	Rollin, Daniel G., assignor to George G Martin	Fire-arms, continuous priming for	April 27, 1858	XIX.
21216	Rood, D. C	Washing-machine	Aug. 17, 1858	XVII.
20510	Roome, J. H.	Boots and shoes, revolving heels for	June 8, 1858	XVI.
21369	Roome, J. H.	Shears	Aug. 31, 1858	XXI.
22034	Root, E. K	Forging metals, drop for	Nov. 9, 1858	II.
21370	Root, J.	Fastener, window	Aug. 31, 1858	II.
21850	Root, M. S	Seeding-machine	Oct. 19, 1858	I.
20730	Rose, A.	Churn	June 29, 1858	I.
20896	Rose, A. F.	Medicated vapor apparatus	July 13, 1858	XX.
19583	Rose, John	Leather, enameling	Mar. 9, 1858	XVI.
21217	Rose, Jonathan H	Planter, seed	Aug. 17, 1858	I.
20664	Ross, F. A., and W. H. Marshall	Sewing-machines, cabinet for	June 22, 1858	III.
19714	Ross, Hiram	Press, cotton	Mar. 23, 1858	XII.
19874	Ross, James	Planters, cotton-seed	April 6, 1858	I.
	Ross, James M. (See Buckley, H. C., assignor.)			
20665	Ross, R., and W. Holland	Machinery, oil-cup for	June 22, 1858	XII.
21276	Ross, R., and W. Holland	Steam-cock	Aug. 24, 1858	VI.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Ross, Richard M. (See Faust, John F., assignor.)			
19045	Rossman, Stephen	Paper, machinery for manufacturing	Jan. 5, 1858	III.
19515	Roth, Honore	Sugar-kettles, method of setting	Mar. 2, 1858	IV.
	Rothermel, Lewis. (See Martin, James W., assignor)			
21153	Routh, J., and A. Vaughn	Harrow	Aug. 10, 1858	I.
19817	Rowe, John L., assignor to Frederick Stevens	Plumb and level indicator, attaching the plumb-line to a.	Mar. 30, 1858	VIII.
22403	Rowe, John L., assignor to F. Stevens	Ice-pick	Dec. 21, 1858	XXII.
19873	Rowell, B	Fence, field	April 6, 1858	IX.
21701	Rowell, Stephen P	Carpet-sweeper	Oct. 5, 1858	XVII.
21851	Rowland, E. C	Gates, farm, method of opening and closing by approaching vehicles.	Oct. 19, 1858	IX.
20731	Rowland, Robert	White-lead, apparatus for manufacturing	June 29, 1858	IV.
	Rowland, Samuel. (See Barnes, Stephen, assignor.)			
	Rowland, Thomas F. (See Henwood & Stephens, assignors)			
22457	Rowlands, Henry R	Water, apparatus for walking on the	Dec. 28, 1858	VII.
22307	Roy, F	Sugar-juices, furnaces for evaporating	Dec. 14, 1858	IV.
	Ruckman, J. A. (See Gibbs, James E. A., assignor.)			
20732	Rude, P. C	Washing-machine	June 29, 1858	XVII.
20445	Rudisill, A	Smoothing-iron	June 1, 1858	XVII.
519	Ruggles, Stephen P	Printing-press	Jan. 19, 1858	Reissue.
19046	Ruggles, Stephen P	Bank-notes, &c., shears for cutting	Jan. 5, 1858	XVIII.
20304	Ruggles, W. G	Baking and cooking, apparatus for	May 18, 1858	V.
	Rulh, Charles E. (See Albrecht, Joseph, assignor.)			
20666	Russ, H. P	Ore-separator	June 22, 1858	II.
20821	Russell, Charles L	Leathering tacks, machine for	July 6, 1858	XVI.
19952	Russell, E. P	Straw-cutter	April 13, 1858	I.
21519	Russell, F	Bed-bottom	Sept. 14, 1858	XVII.
21777	Russell, Fisk	Mowing-machine	Oct. 12, 1858	I.

22308	Russell, George D., Samuel H., and Charles L.	Skirts, hoops, forceps for fastening clasps in	Dec.	14, 1858	XXI.
1036	Russell, Henry E.	Door-lock plates	Aug.	10, 1858	Design.
	Russell, Isaac D., and Cornelia Waterman, administratrix of Stephen Waterman, deceased.	Ships' blocks	Jan.	30, 1858	Extension.
	Russell, J., and J. Lantz. (See Lantz & Russell.)				
20586	Russell, S. J.	Carriage-wheels, metallic hubs for	June	15, 1858	X.
21779	Russell, T. H., and Amos Morrill	Horse-shoe machine	Oct.	12, 1858	II.
19953	Russell, Thomas	Planters, seed	April	13, 1858	I.
21852	Ryerson, V. B.	Submarine explorer	Oct.	19, 1858	VII.
	Sackett, Davis, & Co. (See Lancelott, J., assignor.)				
20609	Safford, George E., assignor to himself and F. G. and F. T. Ward.	Bed-bottom, spring	June	15, 1858	XVII.
20977	Safford, M., assignor to himself and G. P. Kinney.	Lamps, burners and wick-tubes of vapor	July	20, 1858	V.
	Sailor, S. H. (See Smith, Brown, & Sailor.)				
21025	Salisbury, S. C.	Brick-machine	July	27, 1858	XV.
19795	Salomon, John C. F.	Brake, railroad	Mar.	30, 1858	IX.
20172	Salomon, John C. F.	Engines, gas, arrangement of	May	4, 1858	VI.
19047	Salomon, John C. F., and George W. Morris	Vessels, sea-going, steam, lightening	Jan.	5, 1858	VII.
21906	Sample, John	Tiller-rope protector	Aug.	26, 1858	VII.
21026	Sampson, Blaney E.	Cars, horse-railway, coupling for	July	27, 1858	X.
22244	Sampson, Elnathan	Scales, platform	Dec.	7, 1858	XII.
19154	Samuel, A. P.	Engine, steam, cut-off for	Jan.	19, 1858	VI.
19722	Samuel, A. P.	Pistons and piston-rod connexions	Mar.	23, 1858	VI.
21629	Samuels, S.	Telegraph-cables, method of laying submarine	Sept.	28, 1858	VIII.
	Sanborn, L. D. (See Robinson & Sanborn.)				
21277	Sanders, Benjamin D.	Bolting flour, machinery for	Aug.	24, 1858	XIII.
19048	Sanders, Henry	Harness-saddle	Jan.	5, 1858	XVI.
21027	Sanders, J. Milton	Gas, illuminating, production of	July	27, 1858	IV.
22309	Sanderson, Joseph D.	Bee hive	Dec.	14, 1858	I.
	Sanderson, William L. (See Vedder & Sanderson.)				
	Sanderson, William L. (See Vedder & Sanderson.)				
19587	Sanford, Gelston	Mill, grinding	Mar.	9, 1858	XIII.
19455	Sanford, Turney	Plough	Feb.	23, 1858	I.
19535	Sangster, Amos W., assignor to Victor M. Rice, James Sangster, and Eliza Remington.	Sewing-machine	Mar.	2, 1858	III.
20531	Sangster, A. W., assignor to V. M. Rice, J. Thayer, J. Sangster, and E. Remington.	Sewing-machine	June	8, 1858	III.
21929	Sangster, A. W., assignor to V. M. Rice, J. Thayer, J. Sangster, and E. Remington.	Sewing-machine	Oct.	26, 1858	III.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19155	Sangster, James, and Amos W	Sewing-machine	Jan. 19, 1858	III.
19723	Sangster, James, and Amos W	Sewing-machine	Mar. 23, 1858	III.
19585	Sargent, Charles G , and Francis A. Calvert	Carding-cylinders, clothing for	Mar. 9, 1858	III.
20852	Sargent, G. D., assignor to himself and T. R. Abbott.	Alarm-clock, burglars'	July 6, 1858	XXII.
	Sargent, J. B. (See Brocksieper & Sargent.)			
21218	Sargent, J. B	Andirons	Aug. 17, 1858	XVII.
19875	Sargent, J. T	Wallet-fastener	April 6, 1858	XXII.
21981	Sargent, Joseph B	Handles, lifting	Nov. 2, 1858	II.
20587	Sargent, T. D	Distilling oils from coal, retort for	June 15, 1858	IV.
20511	Saunders, Nathan, and F. T. Sherman	Excavating-machine	June 8, 1858	IX.
19876	Savage, Elliot	Sewing-machine	April 6, 1858	III.
22310	Savage, Julius B	Nut-machine	Dec. 14, 1858	II.
19796	Savage, S T	Stove	Mar. 30, 1858	V.
20733	Savage, S. T	Stove, cooking	June 29, 1858	V.
21445	Savage, S. T	Stove, coal	Sept. 7, 1858	V.
21446	Savage, S. T	Stove	Sept. 7, 1858	V.
21447	Savage, S. T	Stove lining, coal, construction of	Sept. 7, 1858	V.
22035	Savage, S. T	Tiles, plates, beams, &c., connecting metallic	Nov. 9, 1858	IX.
20667	Savage, Silas T	Furnaces of boilers and stoves	June 27, 1858	V.
22134	Savage, Silas T	Grate-bars	Nov. 23, 1858	V.
20174	Sawyer, A. C	Shingle machines, device by which the width of the bolt checks the feed in.	May 4, 1858	XIV.
	Sawyer, L. (See Wright & Sawyer.)			
21170	Sawyer, Robert, assignor to William G. Brown	Cultivator	Aug. 10, 1858	I.
21982	Saxe, Charles A	Surveying instruments, method of adjusting the plummet without moving the tripod in.	Nov. 2, 1858	VIII.
20734	Scarlett, W	Mill, grinding	June 29, 1858	XIII.
19589	Schaefer, A	Dividers, mathematical	March 9, 1858	VIII.
19797	Schaub, George	Printing, casting types for	March 30, 1858	XVIII.
21028	Scheitlin, J	Weighing and registering grain, machinery for	July 27, 1858	XII.

21802	Schenkl, John P., assignor to himself and Edward A. Dana.	Fire-arms or ordnance	Oct. 12, 1858	XIX.
20512	Schimmelfennig, A., and Julius Ende	Ink rollers	June 8, 1858	XVIII.
19226	Schleier, Charles S., assignor to John H. Bonn	Window-shade fixtures	Jan. 29, 1858	XVII.
21702	Schmadel, Joseph	Ranges and stoves, cooking boilers for	Oct. 5, 1858	V.
20513	Schnebly, W. and T	Weighing-machine, automatic grain	June 8, 1858	XIII.
22203	Schnebly, William and Thomas	Harvester	Dec. 1, 1858	I.
19049	Schneider, John	Car-coupling, railroad	Jan. 5, 1858	X.
19208	Schneider, John	Lock, pad	Jan. 26, 1858	II.
	Schnitzer, Joseph. (See Harrison & Schnitzer.)			
21278	Scholfield, Nathan	Harpoon lance	Aug. 24, 1858	VII.
22135	Schott, Frederick	Knitting-machine	Nov. 23, 1858	III.
20916	Schrage, V	Lightning rods, device for securing	July 13, 1858	VIII.
19473	Schroeder, C., assignor to himself and P. H. Tuska.	Bed-bottoms, spring	Feb. 23, 1858	XVII.
20514	Schuh, George	Steam-power meter	June 8, 1858	VI.
21907	Schultz, C. A	Engine, steam	Oct. 26, 1858	VI.
19877	Schunks, F	Grain-separator	April 6, 1858	I.
19968	Schuyler, J. S., assignor to J. McCollum	Dough, machine for rolling and cutting	April 13, 1858	XVII.
21449	Schuyler, J. S., and L. A. Rockwell	Carriage-hose	Sept. 7, 1858	X.
21630	Scofield, B. B	Plough	Sept. 28, 1858	I.
	Scott, Todd, & Co. (See Black, James, assignor.)			
21448	Scott. E. M	Loom	Sept. 7, 1858	III.
21371	Scott, George	Telegraph cable, apparatus for paying out	Aug. 31, 1858	VIII.
19969	Scott, George, assignor to Scott, Todd, & Co	Steam generator	April 13, 1858	VI.
200	Scott, R. B	Carriage wheels, tightening the tires of	June 8, 1858	Add. imp't.
19721	Scott, Robert B	Carriage wheels, tightening the tires of	March 23, 1858	X.
20094	Scott, Thomas	Valve, steam	April 27, 1858	VI.
19382	Scott, Thomas M	Trap, fly	Feb. 16, 1858	XXII.
193[illegible]4	Scotten, Stephen	Roofs, sheet-metal, joints for	Feb. 9, 1858	IX.
20218	Scotten, S	Railroads, implements for shooting missiles at cows, &c., on.	May 11, 1858	IX.
	Scovel, Nelson R. (See Pepper, Calvin, assignor)			
	Scoville & Ellithorpe. (See Ellithorpe & Scoville)			
19878	Scoville, Thaddeus S	Plough	April 6, 1858	I.
	Scrimgeour, James (See Chilcott & Schrimgeour.)			
19588	Scripture, E. S	Fastener, window	March 9, 1858	II.
19954	Scripture, E. S	Wrench	April 13, 1858	II.
20822	Scripture, E. S	Sash-holder	July 6, 1858	II.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20897	Seal, G. W. R.	Gas-generator	July 13, 1858	IV.
	Sealy, Thomas. (See Dennison & Sealy.)			
	Searle, Thomas A. (See Hoard & Searle.)			
	Seaton, William. (See McConnell & Seaton.)			
	Seaver & Bruff. (See Bruff & Seaver.)			
19209	Seaver, Ebenezer	Galvanic battery	Jan. 26, 1858	VIII.
1011	Seavey, G. T.	Stoves, &c., ornament in bas-relief	June 1, 1858	Design.
19724	Seekins, H. G.	Fences, field, post for	March 23, 1858	IX.
	Seeley, B. W. (See Pollard, Ezra, assignor.)			
20735	Seeley, H. H., and P. Griswold	Grain-separator	June 29, 1858	I.
	Seiler, George. (See Friend & Seiler.)			
19050	Seipel, John, and William Rupp	Oyster-opener	Jan. 5, 1858	XVII.
19210	Seitz, George	Distillation, preparing mash for	Jan. 26, 1858	IV.
20588	Selleck, R. M.	Harness-pad, construction of	June 15, 1858	XVI.
19718	Sellers, William	Railroads, turning and sliding tables for	March 23, 1858	IX.
20446	Sellers, William	Metal shafting, lathe for turning	June 1, 1858	II.
582	Sellers, William	Railroads, turning and sliding tables for	Aug. 10, 1858	Reissue.
19451	Semple, A. C.	Bedsteads, cast-iron, fastenings of	Feb. 23, 1858	XVII.
19654	Semple, A. C.	Books, machine for trimming	March 16, 1858	XVIII.
	Sener, Joseph W. (See Waite & Sener.)			
	Senter, Gass, & Woodworth. (See Sherwood, Allen.)			
22380	Sergeant, H. C.	Governor for steam-engines	Dec. 21, 1858	VI.
21029	Sergeant, Isaac A.	Clothes-wringer	July 27, 1858	XVI.
20245	Serrell, L. W., assignor to John Harold	Sewing-machines, guides for	May 11, 1858	III.
20394	Seymour, W. H., and H. Pease, assignors to W. H. Seymour and Dayton S. Morgan.	Harvester	May 25, 1858	I.
20515	Seymour, W. H., and D. S. Morgan	Harvesting-machine	June 8, 1858	I.
	Seymour, W. H. (See Platt, N., assignor.)			
21450	Shaefer, John	Ironing clothes, machine for	Sept. 1, 1858	XVII.
21703	Shaler, I. W.	Ticket-holder	Oct. 5, 1858	XXII.
580	Shaler, A., assignor to W. H. Hortsmann	Knife-polisher		Reissue.

21451	Shaler, Reuben	Carpet-sweeper	Sept. 7, 1858	XVII.
22381	Shaler, Reuben	Brush	Dec. 21, 1858	XVII.
19158	Shanks, Thomas	Lamp or candlestick and match-box combined	Jan. 19, 1858	V.
	Shannon, P. (See Campbell, Lighthizer, & Shannon)			
	Sharp, John. (See Titus & Sharp.)			
20736	Sharts, T	Safes, fire and burglar proof	June 29, 1858	II.
20471	Shaw, C. A., J. Clark, and D. T. Giveen, assignors	Sewing-machine	June 1, 1858	III.
19211	Shaw, Charles A., and James Clark	Tanning skins, apparatus for	Jan. 26, 1858	XVI.
20447	Shaw, David W., and William A. Megraw	Brush, whitewash	June 1, 1858	XVII.
20023	Shaw, E., and C. Carpenter, jr., assignors to themselves and G. B. Jastram.	Horse-shoe machine	April 20, 1858	II.
19879	Shaw, E. M	Lock	April 6, 1858	II.
	Shaw, G. W. (See Partridge & Shaw.)			
19383	Shaw, George W	Wind-wheels, method of furling the sails of	Feb. 16, 1858	XI.
19534	Shaw, Henry F., assignor to himself and Moses H. Gragg.	Saws, scroll	Mar. 2, 1858	XIV.
20130	Shaw, Thomas, assignor to himself and C. S. Patterson.	Gas-meter	April 27, 1858	IV.
22335	Shaw, Thomas, assignor to himself and C. S. Patterson.	Stove, gas-burning	Dec. 14, 1858	V.
20589	Shaw, W. F	Reflector, light	June 15, 1858	V.
22311	Shaw, William F	Lamp-shade supporter	Dec. 14, 1858	V.
19452	Shearer, Leander	Spike-machine	Feb. 23, 1858	II.
20374	Shears, A. L	Life-boat	May 25, 1858	VII.
19174	Shedaker, Benjamin, assignor to Edwin Bender	Floors, marquetry, construction of	Jan. 19, 1858	IX.
19516	Shehan, Thomas	Grapple, sub-marine	Mar. 2, 1858	VII.
21983	Shelby, William	Hemp-brake	Nov. 2, 1858	III.
	Sheldon, Smith, & Co. (See Ham, R , assignor.)			
19159	Sheldon, William D	Fences, field, method of connecting the panels of	Jan. 19, 1858	IX.
21726	Shell, A. N , assignor to W. S. Wood and T. N. Shell.	Trap, roach	Oct. 5, 1858	XXII.
20590	Shellaberger, M. M	Doors, weather-strip for	June 15, 1858	IX.
	Shepard, Charles J. (See Williams, Charles, assignor.)			
975	Shepard, Charles J	Stoves	Jan. 5, 1858	Design.
21984	Shepherd, F	Book and slate combined	Nov. 2, 1858	XVIII.
	Shepherd, Samuel. (See Earle, John E., assignor.)			
	Sheppard, Sidney. (See Perry, Horatio O.)			

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20898	Sherburne, N. H	Churn	July 13, 1858	I.
20899	Sherburne, N. H	Grain-cleaning machine	July 13, 1858	I.
20516	Sherman, David S	Punching-machine	June 8, 1858	II.
	Sherman, F. T. (See Saunders & Sherman.)			
	Sherry, John. (See Kelley, James, assignor.)			
19212	Sherwood, Allen	Harvesters, raking and binding, devices for	Jan. 26, 1858	I.
21540	Sherwood, Allen, assignor to E. P. Senter, Albert H Goss, and Daniel Woodworth.	Harvesters, raking and binding, apparatus for	Sept. 14, 1858	I.
	Sherwood, Samuel S. and A. (See Douglass & Sherwood.)			
22091	Shinn, S. S	Glass bottles, mould for	Nov. 16, 1858	XV.
22092	Shiverick, Benjamin	Hammer, forge	Nov. 16, 1858	II.
19821	Shrader, Henry	Press, cotton	Mar. 30, 1858	XII.
20095	Shuler, Isaac C	Coffins, constructing	April 27, 1858	XXII.
21985	Sibbet, John W	Car-seats	Nov. 2, 1858	X.
22314	Sibbet, John W	Carriage-thills to axles, attaching	Dec. 14, 1858	X.
21219	Sibley, Rufus	Bomb-lance	Aug. 17, 1858	XIX.
565	Sickels, F. E	Steam-cylinder with the steam-chests, mode of connecting the.	June 1, 1858	Reissue.
	Sickels, F. E	Valves of steam-engines, method of opening and closing the.		Extension.
20219	Sickels, G	Pencils, slate, instrument of sharpening	May 11, 1858	XVIII.
22315	Siemens, Charles W	Meters, fluid	Dec. 14, 1858	II.
	Sigourney, Joseph. (See Harkness & Terry, assignors.)			
20307	Sikes, O. S	Boot-jack	May 18, 1858	XVII.
21279	Simkins, Elisha	Bolt-machine	Aug. 24, 1858	II.
21908	Simkins, Elisha	Mining coal, machine for	Oct. 26, 1858	IX.
21853	Simmerman, Jacob S	Teeth, method of applying electricity during extraction of.	Oct. 19, 1858	XX.
21780	Simmons, Andrew	Seeding-machine	Oct. 12, 1858	I.
21986	Simmons, I. H	Railroad chair	Nov. 2, 1858	IX.

20448	Simonds, W. A	Gas retort	June 1, 1858	IV.
20173	Simons, R	Roofing, cement for	May 4, 1858	IX.
19384	Simpson, William M	Bank-check canceller	Feb. 16, 1858	XXII.
20958	Sinclair, R., jr	Straw-cutter	July 20, 1858	I.
	Singer & Clark. (See Morey & Johnson, assignors.)			
	Singer & Clark. (See Batchelder, John, assignor.)			
20900	Sirret, E , jr	Sawing machines, scroll	July 13, 1858	XIV.
	Sirwell, R. G. (See Horrall & Sirwell)			
20591	Skelly, E	Furnaces for burning bagasse, &c	June 15, 1858	V.
22382	Skelly, Evan	Furnace-boiler	Dec. 21, 1858	V.
	Skiddy, William. (See Taylor, James R., assignor.)			
19519	Skinner, H	Clock calendar	March 2, 1858	VIII.
	Slawson, J. B. (See Reeves, Israel S., assignor.)			
21372	Slawson, J. B	Omnibus, &c , fare-boxes for	Aug. 31, 1858	X.
550	Slawson, J. B	Boxes for receiving passengers' fares	May 4, 1858	Reissue.
19798	Slevin, Andrew	Pendulum-power, applying	March 30, 1858	VIII.
	Sloan, Hervy. (See Turner, Alexander, assignor.)			
	Sloan, Hervy. (See Turner, Bess, & Sloan.)			
20375	Sloan, I. T., Volney Smith, Manuel Hoover, & R. M. Briggs.	Gas-retort	May 25, 1858	IV.
626	Sloan, Thomas J., assignor to the Eagle Screw Company.	Screws, wood	Nov. 23, 1858	Reissue.
19051	Sloan, William D	Lathe, turning	Jan. 5, 1858	XIV.
20737	Sloane, W. M	Stave-machine	June 29, 1858	XIV.
	Sloat, G. B. (See Blodgett, S. C., assignor.)			
21987	Slocomb, S	Candlesticks, &c	Nov. 2, 1858	V.
	Small, Alexander. (See Smith, Brown, & Sailor, assignors)			
21373	Smart, A	Skirts, hoop, clasps for	Aug. 31, 1858	XXI.
19517	Smead, E. A	Metal pans, sheet, machine for forming	March 2, 1858	II.
	Smith, Sheldon, & Co. (See Ham, R., assignor.)			
20376	Smith, A. S	Chair and cradle, combined rocking	May 25, 1858	XVII.
21578	Smith, Alpha	Water-wheel	Sept. 21, 1858	XI.
20823	Smith, Asberry	Cultivator, cotton	July 6, 1858	I.
22036	Smith, Benjamin F	White lead, manufacture of	Nov. 9, 1858	IV.
19474	Smith, Benjamin R., assignor, to John Hellings	Washing-machine	Feb. 23, 1858	XVII.
21781	Smith, C. W	Electricity, method of lighting street-lamps by	Oct. 12, 1858	VIII.
19880	Smith, Charles J	Railroad station indicator	April 6, 1858	IX.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20305	Smith, Charles W	Burners, device for regulating by electricity the issue of gas from.	May 18, 1858	V.
20223	Smith, Daniel C	Corn-husker	May 11, 1858	I.
21088	Smith, Daniel N	Chuck for centering, &c	Aug. 3, 1858	II.
19213	Smith, David W	Fire-arms, nipple-guard of	Jan. 26, 1858	XIX.
20175	Smith, E. Harry	Sewing-machine	May 4, 1858	III.
20739	Smith, E. Harry	Sewing-machine	June 29, 1858	III.
21089	Smith, E. Harry	Sewing-machine	Aug. 3, 1858	III.
19214	Smith, Frederick	Water-wheel	Jan. 26, 1858	XI.
20738	Smith, G., and A. G. Perry	Planter, seed	June 29, 1858	I.
974	Smith, G., H. Brown, and S. H. Sailor, assignors to Alexander Small and E. G. Smyser.	Stoves, cook's	Jan. 5, 1858	Design.
1019	Smith, G., and H. Brown, assignors to Leibrandt, McDowell, & Co.	Stove, cook	June 29, 1858	Design.
1018	Smith, G., and H. Brown, assignors to Leibrandt, McDowell, & Co.	Stove, cook's	June 29, 1858	Design.
1072	Smith, G., and H. Brown, assignors to Leibrandt, McDowell, & Co.	Stove, parlor	Dec. 14, 1858	Design.
1029	Smith, G., and H. Brown, assignors to G. Abbott and A. Lawrence.	Stove	July 20, 1858	Design.
1073	Smith, G., and H. Brown, assignors to G. Abbott and A Lawrence.	Range, cook	Dec. 14, 1858	Design.
1052	Smith, G., and H. Brown, assignors to North, Chase, & North.	Stove	Sept. 21, 1858	Design.
21376	Smith, G. W	Warming device, feet	Aug. 31, 1858	V.
21520	Smith, George H	Balances, spring, in combination with a knife	Sept. 14, 1858	XII.
20959	Smith, George R	Railroad switches	July 20, 1858	IX.
20592	Smith, George W	Pitcher, ice	June 15, 1858	XVII.
1028	Smith, George W	Pitcher	July 20, 1858	Design.
598	Smith, Gilbert	Cartridges	Sept. 14, 1858	Reissue.
20313	Smith, H., assignor to H. Disston	Saws, hand, device attached to, for squaring and marking.	May 18, 1858	XIV.

20824	Smith, H. B	Mouldings, arrangement of devices for planing	July	6, 1858	XIV.
19590	Smith, H. C	Harvester	Mar.	9, 1858	I.
20225	Smith, H. C	Harvester	May	11, 1858	I.
20449	Smith, H. E	Threshing-machine	June	1, 1858	I.
	Smith, H M.	Straw-cutters	Feb.	18, 1858	Extension.
21909	Smith, Hamilton E	Washing-machine	Oct.	26, 1858	XVII.
19518	Smith, Henry C.	Harvester-fingers	Mar.	2, 1858	I.
	Smith, Horace. (See Harrington, F. H., assignor.)				
19104	Smith, J. D	Excavator	Jan.	12, 1858	IX.
21375	Smith, J. D.	Seeding-machine	Aug.	31, 1858	I.
19160	Smith, Jeremiah P	Corn-sheller	Jan.	19, 1858	I.
21374	Smith, John F., and Wightman Brown	Churn	Aug.	31, 1858	I.
	Smith, John M. (See Weatherhead & Henry, assignors)				
19655	Smith, John W.	Gas retort, portable	Mar.	16, 1858	IV.
	Smith, Joseph. (See Bussell & Smith)				
21854	Smith, Joseph D.	Harvester	Oct.	19, 1858	I.
188	Smith, Joseph M	Rolls, drawing covering for	Jan.	26, 1858	Add'l imp't.
19103	Smith, Justin M	Butter-worker	Jan.	12, 1858	XVII.
20096	Smith, Nathan	Paddle-wheel	April	27, 1858	VII.
21377	Smith, Nathaniel S	Cultivator	Aug.	31, 1858	I.
	Smith, Newton W. (See Jones & Smith.)				
22383	Smith, O. B	Harness-buckles	Dec.	21, 1858	XVI.
	Smith, O. P. (See Arnall, William M.)				
	Smith, R. D. O. (See Bryant & Smith)				
20593	Smith, S. H	Harvester	June	15, 1858	I.
198	Smith, Samuel J	Printing-press, hand	April	6, 1858	Add'l imp't.
21250	Smith, Samuel N	Windlass	Aug.	24, 1858	VII.
22268	Smith, Samuel R., and Philander P. Lane, assignors to Lane & Bodley.	Saw-mill	Dec.	7, 1858	XIV.
20224	Smith, Solomon P	Straw-cutter	May	11, 1858	I.
22037	Smith, Thomas Briggs	Mattresses and cushions, elastic material for	Nov.	9, 1858	XVII.
19157	Smith, Thomas W	Car-brakes, railroad	Jan.	19, 1858	X.
	Smith, V. (See Sloan, Smith, Hoover, & Briggs.)				
21988	Smith, Waterman	Wool and other fabrics for spinning, preparing	Nov.	2, 1858	III.
20517	Smith, William	Provision-cutter	June	8, 1858	XVII.
	Smith, William B. (See Holser, Charles F., assignor.)				
19156	Smith, Winser	Millstones, feeding	Jan.	19, 1858	XIII.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20594	Smull, George L.	Brick-machine	June 15, 1858	XV.
	Smyser, E. G. (See Smith, Brown, & Sailor, assignors.)			
21154	Sneider, C. E.	Printing-press	Aug. 10, 1858	XVIII.
19611	Snell, Edward S., assignor to himself and Francis B. Washburn.	Boots and shoes, machine for pricking and cutting heels of	Mar. 9, 1858	XVI.
20960	Snell, V.	Boots and shoes, heel-shavers for	July 20, 1858	XVI.
19955	Snelling, Joseph	Chain-shackle	April 13, 1858	II.
20306	Snow, George K.	Stamps to letters, post office, machine for affixing	May 18, 1858	XXII.
20684	Snow, Heman S., assignor to himself and G. F. Snow.	Sewing-machine	June 22, 1858	III.
20901	Snyder, J. H.	Rolling railway-chairs	July 13, 1858	II.
22038	Solis, Richard	Shirred goods, machinery for manufacturing	Nov. 9, 1858	IV.
636	Solis, Richard, assignor to Horace H. Day	Cloth, elastic, manufacture of	Dec. 14, 1858	Reissue.
	Solomans, A. S. (See Morrison, Thomas, assignor.)			
22245	Solomon, Lewis	Amalgamator	Dec. 7, 1858	II.
20825	Soule, George H.	Fire-arm, breech-loading	July 7, 1858	XIX.
19521	Southwick, Hosea	Mill, grinding	Mar. 2, 1858	XIII.
19161	Spafford, William W.	Spinning-machine	Jan. 19, 1858	III.
	Spangenberg, R F. (See Monastier, J., assignor.)			
20668	Spaulding, S. B.	Stove, cooking	June 22, 1858	V.
21521	Spaulding, Stillman C.	Lantern	Sept. 14, 1858	V.
19956	Spear, James	Stove, cooking	April 13, 1858	V.
20450	Spear, James	Stove, cooking	June 1, 1858	V.
	Spear, N. T. (See Grover, L A., assignor.)			
21522	Spear, N. T.	Corn-husker	Sept. 14, 1858	I.
195	Speer, James R.	Clasps for metallic hoops	Mar. 23, 1858	Add'l imp't.
207	Speer, James R.	Hoops, metallic, clasps for	Oct. 26, 1858	Add'l imp't.
20097	Speers, N. W.	Bedstead	April 27, 1858	XVII.
22384	Speight, Ira	Mills, flouring	Dec. 21, 1858	XIII.
20176	Spencer, A. B.	Cars, railroad, method of ventilating and excluding dust from.	May 4, 1858	X.

21631	Spencer, Charles L	Switches, railroad	Sept. 28, 1858	IX.
22136	Spencer, James	Printing names or directions on packages, &c., machine for	Nov. 23, 1858	XVIII.
22137	Spencer, James H., and Thomas Lamb	Sewing-machine	Nov. 23, 1858	III.
20766	Spencer, Seth P., assignor to himself, S. S. Spencer, and Harris Boardman.	Rollers, drawing	June 29, 1858	III.
	Sperry, E. W. (See White, Le Roy, assignor.)			
21782	Sperry, John	Planing-cutter, rotary	Oct. 12, 1858	XIV.
19974	Spieker, Charles F	Manure-beds, preparing	April 13, 1858	IV.
22204	Sprague, Joseph W.	Canals, &c., stop-gate for	Nov. 30, 1858	IX.
1071	Sprecher, George D	Stove, dining-room	Dec. 7, 1858	Design.
20518	St. Charles, W	Bedstead	June 8, 1858	XVII.
20378	St. John, J. A	Harvesters, raking-attachment to	May 25, 1858	I.
21378	St. John, Le Grand C	Propeller for boats	Aug. 31, 1858	VII.
	St. John, R. H. (See Hoge, Solomon G., assignor.)			
20903	St. John, William W	Sleigh-runners, attaching	July 13, 1858	X.
20826	Stace, W. R	Tailors' measure	July 6, 1858	XXI.
22138	Stadtmuller, L	Ore-separator	Nov. 23, 1858	II.
20451	Staehlen, W	Spittoon	June 1, 1858	XVII.
20961	Staehlen, W	Firemen's trumpet	July 20, 1858	XXII.
22093	Stafford, Charles W	Churn	Nov. 16, 1858	I.
19719	Stafford, R. J.	Looms, hair cloth, stop motion for	March 23, 1858	III.
21783	Stamm, F	Mortising machines, mode of reversing the chisels in.	Oct. 12, 1858	XIV.
21452	Stanbro, Samuel	Seeding machine	Sept. 7, 1858	I.
20828	Stancliff, C. A., and James Mingis	Rails, chair, continuous	July 6, 1858	IX.
21030	Stanford, C. P	Crushing and grinding the same, feeding quartz, &c., to machine for.	July 27, 1858	XIII.
	Stanley, Henry	Stoves, coal	Dec. 24, 1858	Extension.
	Stannard, George J. (See French, A. F., assignor.)			
19520	Stanberry, S	Bee-hive	March 2, 1858	I.
19881	Stanton, Benjamin B	Printing-stamp, hand	April 6, 1858	XVIII.
21090	Stanwood, J. E	Gas-burner, Argand	Aug. 3, 1858	V.
	Staples, Watson, *et al.* (See Wolfe, H. R., assignor.)			
21523	Starr, E. T	Fire-arm, breech-loading	Sept. 14, 1858	XIX.
20827	Staufen, W	Hemp, Tampico, treatment of fibre of	July 6, 1858	III.
	Stearns, Joseph E. (See Dorman & Stearns.)			
21991	Stebbins, F	Boilers, steam, safety apparatus for	Nov. 2, 1858	VI.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
	Steckel, Daniel. (See Garrett & Steckel.)			
21855	Steele, Henry	Umbrella	Oct. 19, 1858	XXI.
21992	Steele, J. D., and H. Lorenz	Cars, railroad, speed indicator and recorder for	Nov. 2, 1858	X.
21856	Steele, William	Staves from the bolt, machine for cutting	Oct. 19, 1858	XIV.
20006	Steer, P. J	Sewing-machine	April 20, 1858	III.
	Steetle, J. (See Henderson & Steetle.)			
1041	Steffe, Jacob, James Horton, and John Currie, assignors to David Stewart and Richard Peterson.	Stove, (fancy egg)	Aug. 17, 1858	Design.
1042	Steffe, Jacob, James Horton, and John Currie, assignors to David Stewart and Richard Peterson.	Stove, (iron side)	July 17, 1858	Design.
19586	Steigers, Mathias	Motion, reciprocating, mode of producing vertical and horizontal.	March 9, 1858	XIII.
19898	Steinman, Robert, assignor to himself and N. S. Wax.	Lamp	April 6, 1858	V.
20595	Steinway, H	Piano-forte actions	June 15, 1858	XVIII.
21989	Stemple, Adolph	Harness, machine for creasing and blacking leather for.	Nov. 2, 1858	XVI.
20007	Stephens, E. W., and R. Jenkins	Railroad rails	April 23, 1858	IX.
20452	Stephens, E. W., and R. Jenkins	Railway cars, rollers for	June 1, 1858	IX.
	Stephens, J. (See Henwood & Stephens.)			
22385	Stephens, John, and James Hanley	Skirt-hoop, buckles for	Dec. 21, 1858	XXI.
19105	Stephens, L. C	Rule, carpenters'	Jan. 12, 1858	VIII.
19799	Stephens, W. A., and R. Jenkins	Iron shafts, wrought, manufacture of tubular	March 30, 1858	II.
22333	Stephens, William, assignor to Richard Stephens	Valve-gear slide for oscillating engines	Dec. 14, 1858	VI.
21281	Sterling, W. G	Gas-regulator	Aug. 24, 1858	IV.
22334	Stern, J. C., assignor to himself and G. W. Stone	Boiler, steam	Dec. 14, 1858	VI.
21993	Stetson, C. T	Harvester	Nov. 2, 1858	I.
21990	Stetson, William B	Pianos, pedal, attachment for	Nov. 2, 1858	XVIII.
19106	Steveley, A	Scissors sharpener	Jan. 12, 1858	XXII.
22246	Stevens, Andrew	Composition, water-proof, cork	Dec. 7, 1858	IV.

22205	Stevens, Bradford, and Lorenzo	Boot-soles, crimping	Nov. 30, 1858	XVI.
21091	Stevens, E. M	Pegging-machine	Aug. 3, 1858	XVI.
	Stevens, Frederick. (See Rowe, John L , assignor.)			
	Stevens, George. (See Hendrick, Joseph E., assignor.)			
20377	Stevens, J. C	Drill, seed	May 25, 1858	I.
22039	Stevens, John	Shirt-bosom folders	Nov. 9, 1858	XXI.
21803	Stevens, Judd, assignor to himself and John L. Beadle.	Spading-machines	Oct. 12, 1858	I.
20220	Stevens, M	Mills, cider	May 11, 1858	XIII.
21857	Stevens, Thomas S	Cultivator.	Oct. 19, 1858	I.
21155	Stevens, W. J	Valves, steam	Aug. 10, 1858	VI.
19385	Stevens, William K	Lubricators	Feb. 16, 1858	XII.
1047	Stevens, William W., assignor to Nathaniel P. Richardson & Co.	Stove, cook's, oven	Sept. 7, 1858	Design.
21910	Stevenson, C. L	Bolts, machine for drawing	Oct. 26, 1858	II.
20520	Stevenson, W. J	Bottles, jars, &c., metallic caps for	June 8, 1858	XXII.
19800	Stevenson, William J	Peas, machine for shelling	March 30, 1858	I.
	Stewart, Brandebury, *et al.* (See Brauer, Louis, assignor)			
20962	Stewart, A. D	Barrel-heads, machine for cutting both bevels simultaneously on.	July 20, 1858	XIV.
	Stewart, J. F. (See Hall & Stewart.)			
21171	Stewart, J. L., assignor to Rudolph A. Nathurst	Stove, cooking	Aug. 10, 1858	VI.
22458	Stewart, James	Dredging-machine	Dec. 28, 1858	IX.
22150	Stewart, John, assignor to Charles Wall	Rope-yarn, machine for tarring	Nov. 23, 1858	III.
20453	Stewart, John L	Gas, manufacture of	June 1, 1858	IV.
21524	Stewart, Robert	Valve, combination steam	Sept. 14, 1858	VI.
21579	Stewart, Thomas	Valve for steam-engines, rotary	Sept. 21, 1858	VI.
21911	Stewart, Thomas	Engines, applying power to the cranks of	Oct. 26, 1858	VI.
19957	Stiles, George, jr., and Strickland Kneass	Horse-shoe machine	April 13, 1858	II.
619	Stillman, Alfred, deceased, Elizabeth Ann Harris, administratrix.	Furnace for burning bagasse	Nov. 9, 1858	Reissue.
	Stillman, Walter. (See Ridley, Henry, assignor.)			
21717	Stimpson, J., and James H. Stimpson	Butter-cooler	Oct. 5, 1858	XVII.
20902	Stimpson, J. H	Butter-cooler	July 13, 1858	XVII.
21220	Stimpson, James H	Butter-bucket.	Aug. 17, 1858	XVII.
	Stimpson, James H., assignor to Sophia E. and Julia Stimpson, and Edward F. Colburn.	Vessels for holding liquids	Nov. 12, 1858	Disclaimer.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21031	Stoddard, A	Harvester, corn	July 27, 1858	I.
19958	Stoddard, O	Harvesters, raking attachment to	April 13, 1858	I.
20221	Stoddard, O	Harvester	May 11, 1858	I.
22312	Stoddard, Oren	Harvester	Dec. 14, 1858	I.
19215	Stoddard, William	Ploughing-machine	Jan. 26, 1858	I.
20669	Stone, C	Clothes, frame for drying	June 22, 1858	XVII.
19107	Stone, Chester	Rack, clothes	Jan. 12, 1858	XVII.
21727	Stone, Draper, assignor to himself and E. S. Turner.	Car-seats, railroad	Oct. 5, 1858	X.
	Stone, G W. (See Stern, J. C., assignor.)			
22474	Stone, Harley, assignor to P. P. Todd	Bit, expanding	Dec. 28, 1858	XIV.
21032	Stone, James A	Horse-power machine	July 27, 1858	XIII.
19265	Stone, N. F., and W. H. Ward	Saw-gummer	Feb. 2, 1858	II.
	Storer, C. (See Bennett & Storer.)			
21473	Storm, W. M., assignor to A. Cummings	Stamping milk-cans, apparatus for	Sept. 7, 1858	XXII.
20519	Storrs, L. B	Tailors' pressing-machine	June 8, 1858	XXI.
21453	Story, C. L.	Shingles from the log, method of manufacturing	Sept. 7, 1858	XIV.
21379	Stover, H D	Irregular forms, machine for cutting	Aug. 31, 1858	XIV.
22459	Stow, O. W	Burring-machine	Dec. 28, 1858	II.
	Strange, James W. (See Bellingrath, Leonard, jr., assignor)			
22460	Stratton, Samuel T	Starch, manufacture of	Dec. 28, 1858	IV.
19386	Strause, G	Mill-bushes	Feb. 16, 1858	XIII.
20220	Straw, W., and R. H. Armstrong	Harness tug-buckle	May 11, 1858	XVI.
19454	Strong, Charles	Saw-mill	Feb. 23, 1858	XIV.
	Stuart, Cresson, and Peterson. (See Delany & Martino, assignors.)			
	Stuart & Peterson. (See Horton, J., assignor.)			
	Stuart, D. (See Reed, J. A, assignor.)			
22313	Stubblefield, Thomas	Gauges, water, for steam-boilers	Dec. 14, 1858	VI.
20454	Stuber, J., and F. Frank	Furnace, hot-air	June 1, 1858	V.
19266	Stuber, John, and Richard Hughes	Lamp	Feb. 2, 1858	V.
	Sturges, D. B. (See Kuehnhold & Sturges.)			

	Sturn, Ignatius. (See Klinger, John G , assignor.)			
19282	Sturtevant, B. F., assignor to himself and Elmer Townsend.	Shoe-pegs, method of preparing blanks for	Feb. 2, 1858	XVI.
21593	Sturtevant, B. F., assignor to himself and Elmer Townsend.	Boots and shoes, machine for pegging	Sept. 21, 1858	XVI.
19720	Sullivan, D., and M. McIntyre	Gas-burner	March 23, 1858	V.
20098	Sultzback, H. Lee	Leather-sticker	April 27, 1858	XVI.
20008	Summers, J	Gates, farm, catch-latch for	April 20, 1858	IX.
	Sumner, Palmer	Lath, metallic	April 24, 1858	Extension.
	Sumner, Palmer	Ceilings, fire-proof	April 25, 1858	Disclaimer.
635	Sumner, William	Organs	Dec. 14, 1858	Reissue.
21704	Suter, James S., and George M. Palmer	Cigars, wrappers for	Oct. 5, 1858	XXII.
20963	Sutton, J. L	Stove, steam	July 20, 1858	VI.
640	Sutton, J. L., assignor to H. Downing	Stove, steam	Dec. 29, 1858	Reissue.
21858	Swan, James	Hydrant	Oct. 19, 1858	XI.
21221	Swan, Moses	Churns, &c., operating	Aug. 17, 1858	I.
20099	Swaney, Charles M	Washing-machine	April 27, 1858	XVII.
	Swartley, J. S. (See Brey, E., assignor.)			
	Swartwout, Edwin L. (See Worden, Leonard J.)			
19656	Swartz, George W	Boat-propeller, canal	March 16, 1858	VII.
21282	Sweeney, Owen	Fire-escape	Aug. 24, 1858	XXII.
21381	Sweet, Francis M	Bracelets	Aug. 31. 1858	XVIII.
21222	Sweet, James H	Nail-plate feeder	Aug. 17, 1858	II.
21380	Sweet, James H	Railway-chairs, rolling	Aug. 31, 1858	IX.
	Sweetland, J. B. (See Rider, W., assignor.)			
	Swift, Carr, Condit, Barnum, and Burr. (See Frost & Monroe, assignors.)			
22461	Swigert, George W	Washing-machine	Dec. 28, 1858	XVII.
21525	Sykes, Chester W	Pliers	Sept. 14, 1858	II.
22094	Symmes, John C	Fire-arm, breach-loading	Nov. 16, 1848	XIX.
1050	Tabb, Philip	Bedstead, cast iron	Aug. 14, 1858	Design.
22040	Tabor, Calvin and Byron D	Saws, machine for filing	Nov. 9, 1858	II.
20379	Taft, George C	Wrench	May 25, 1858	II.
20831	Taft, P. P	Corn-sheller	July 6, 1858	I.
21705	Taggart, A. C. and A. Gray	Tanning, apparatus for	Oct. 5, 1858	XVI.
	Taggart, A.W. (See Thompson, Samuel, assignor.)			
19216	Taggart, Lorenzo	Life-preserving rafts, canvas sheets connected with	Jan. 26, 1858	VII.
535	Taggart, Lorenzo	Life-preserving raft	March 2, 1858	Reissue.
19162	Talbot, G. H	Screw-drivers, ratchet movement for	Jan. 19, 1858	II.

Patentees of inventions and designs, 1858.

No.	Names of patentee.	Invention or discovery.	Date.	Class.
19959	Tallman, William	Gas-burner	April 13, 1858	V.
21156	Tallon, John	Rice, machine for pounding	Aug. 10, 1858	XIII.
21912	Taltavull, Peter	Bee-hive	Oct. 26, 1858	I.
19315	Tambling, W. H	Washing-machine	Feb. 9, 1858	XVII.
20740	Tambling, W. H	Churn	June 29, 1858	I.
21223	Tapley, D. J	Shoe-tool, combination	Aug. 17, 1858	XVI.
22095	Tapley, Daniel J	Boot and shoe soles, machine for moulding	Nov. 16, 1858	XVI.
22386	Tarr, Asa F	Mitre-box	Dec. 21, 1858	XIV.
19591	Tasker, Thomas T	Radiator, hot-water	Mar. 9, 1858	V.
20226	Tatum, J. H	Brush	May 11, 1858	XVII.
21706	Tatum, Joel H	Candles, manufacture of	Oct. 5, 1858	IV.
22247	Taylor, Allen	Cans, preserve, sealing	Dec. 7, 1858	XVII.
21382	Taylor, Alva B	Hat-body machinery	Aug. 31, 1858	III.
19657	Taylor, Anson	Preparing silk for use with felting substances	Mar. 16, 1858	IV.
20024	Taylor, George, assignor to himself and John W. Free.	Planter, corn	April 20, 1858	I.
	Taylor, George F. (See Chilcott & Scrimgeour.)			
	Taylor, George W. (See Bullock, Wm., assignor.)			
20100	Taylor, H. R	Drawer for closets, bureaus, &c	April 27, 1858	XXII.
20829	Taylor, H. W	Nail-machine	July 6, 1858	II.
20830	Taylor, J. F	Hulling-machine, rice	July 6, 1858	I.
20131	Taylor, James R., assignor to Wm. Skiddy	Ship's capstan	April 27, 1858	VII.
20741	Taylor, Susan E	Pen, fountain	June 29, 1858	XVIII.
21033	Taylor, W. W	Compounds for protecting trees from insects	July 27, 1858	IV.
	Taylor, Wm. (See Burlingame, S. S., assignor.)			
20177	Taylor, William N	Gas-generators	May 4, 1858	IV.
	Teal, J. W. (See Dake & Teal.)			
19801	Telford, George	Sawing-machine, crosscut	Mar. 30, 1858	XIV.
21283	Tenney, F. A	Meter, water	Aug. 24, 1858	II.
	Tenney, John. (See Brown, Cyriel E., assignor.)			
19387	Terrel, Charles C	Fire-arm, repeating	Feb. 16, 1858	XIX.
	Terry, W. A. (See Harkness & Terry.)			

20904	Tetlow, J	Gin, cotton	July 13, 1858	III.
19592	Tewksbury, Abijah R	Pavement, iron	Mar. 9, 1858	IX.
	Thacher, S. P. (See Ridley, Henry, assignor.)			
20101	Tharp, E	Washing-machine	April 27, 1858	XVII.
21109	Thayer, C. B, assignor to himself and Charles Robinson.	Gun, centrifugal	Aug. 3, 1858	XIX.
19882	Thayer, H	Carpet-holder	April 6, 1858	XVII.
21474	Thayer, H. H., assignor to J. A. Woodbury and S. A. Woods.	Journal-boxes	Sept. 7, 1858	XIII.
	Thayer, Henry. (See Campbell, Ethan, ass'r.)			
19316	Thayer, Horace, and Levi L. Martin	Painting and varnishing machine	Feb. 9, 1858	XVIII.
	Thayer, J. (See Sangster, A. M., assignor.)			
	Thayer, R. (See Bailey & Thayer.)			
	Thiers, R. (See Lacassagne & Thiers.)			
20905	Thomas, Charles C	Teeth, extracting, apparatus as aids in	July 13, 1858	XX.
20102	Thomas, Chauncey	Mill for grinding paint	April 27, 1858	XIII.
22387	Thomas, Enoch	Press, cam	Dec. 21, 1858	XII.
21157	Thomas, J. H	Gridirons, folding	Aug. 10, 1858	V.
21034	Thomas, J. H., and P. P. Mast	Planter, seed	July 27, 1858	I.
19328	Thomas, John F., assignor to himself and Samuel Remington.	Gun, cane	Feb. 9, 1858	XIX.
22041	Thomas, Joseph	Furnace for tempering steel	Nov. 9. 1858	V.
1061	Thomas, Lyman L., assignor to Dighton Furnace Company.	Stove	Nov. 9, 1858	Design.
20178	Thomas, R	Lamp attachment for preventing smoke, &c	May 4, 1858	V.
20455	Thompson, George	Hoisting and lowering goods, machinery for	June 1, 1858	XII.
	Thompson, J. B. (See Barker, William, jr., assignor.)			
19802	Thompson, Joseph	Composition, mastic	Mar. 30, 1858	IV.
21158	Thompson, Joseph	Cement for roofing purposes	Aug. 10, 1858	IV.
21784	Thompson, Meriwether	Rule for describing polygonal forms	Oct. 12, 1858	VIII.
20308	Thompson, N., jr	Boats, moulding frame for the construction of	May 18, 1858	VII.
19317	Thompson, Nathan, jr	Boats, collapsible	Feb. 9, 1858	VII.
22462	Thompson, Nathan, jr	Car-seats and couches, railroad	Dec. 28, 1858	X.
21994	Thompson, O. B	Lock	Nov. 2, 1858	II.
21580	Thompson, Salathiel, S	Harrow, rotary	Sept. 21, 1858	I.
19818	Thompson, Samuel, assignor to himself and A. W. Taggort.	Planter, seed	Mar. 30, 1858	I.
19163	Thompson, Thomas	Plough	Jan. 19, 1858	I,

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20742	Thomson, John	Sewing-machine	June 29, 1858	III.
21581	Thomson, W. S	Skirts, ladies', eylet fastenings for	Sept. 21, 1858	XXI.
20380	Thorn, L	Boilers, steam, feed-regulator for	May 25, 1858	VI.
20743	Thorndike, John	Punch, brad	June 29, 1858	II.
19267	Thrasher, Francis, and Henry B. Horton	Window-sashes, fastening for	Feb. 2, 1858	IX.
	Throop, G. E. (See Howes & Throop.)			
21092	Thum, Charles D	Brush case, shoe	Aug. 3, 1858	XVII.
20744	Thurber, W	Propeller	June 29, 1858	VII.
	Tiffany, D. B. (See Farrington, George K., assignor.)			
	Tiffany, David B. (See Farrington & Brown.)			
21383	Tifft, John D	Grain-separator	Aug. 31, 1858	I.
20964	Tift, S. H	Clothes-dryer	July 20, 1858	XVII.
21035	Tift, S. H	Clothes-dryer	July 27, 1858	XVII.
19456	Tilton, Daniel L	Planter, seed	Feb. 23, 1858	I.
19725	Tilton, Daniel L	Plough	Mar. 23, 1858	I.
21384	Timby, F. R	Casket, travelling	Aug. 31, 1858	XXII.
21385	Tindall, Thomas J	Washing-machine	Aug. 31, 1858	XVII.
22096	Tingley, John	Hame-fastener	Nov. 16, 1858	XVI.
19217	Tinney, Joseph	Door, weather-strip for	Jan. 26, 1858	IX.
20103	Tittle, John	Straw-cutter	April 27, 1858	I.
20745	Titus, E. H., and John Sharp	Lumber, machine for resawing	June 29, 1858	XIV.
	Tobey, William. (See Pitcher, Benjamin, assignor.)			
21526	Tobey, William	Gate	Sept. 14, 1858	IX.
20104	Tobin, J	Smut and grain-cleaning machine	April 27, 1858	XIII.
	Todd, Scott, & Co. (See Black, James, assignor.)			
	Todd, Scott, & Co. (See Scott, George, assignor.)			
22248	Todd, George C	Boot's edge, keys for	Dec. 7, 1858	XVI.
20746	Todd, Hiram	Lamps, burning fluid	June 29, 1858	V.
	Todd, P. P. (See Stone, Harley, assignor.)			
	Todd, R. J. (See Randall, G. W., assignor,)			

21386	Todd, William	Logs, rolling and piling, implements for	Aug.	31, 1858	IX.
21527	Todd, William S	Bedstead	Sept.	14, 1858	XVII.
22206	Tolhurst, G. W	Corn-shelling machine	Nov.	30, 1858	I.
	Tolhurst, W. H. (See Daggett, W., assignor.)				
19108	Tom, John B , and Stephen D. Tucker	Lubricating journals, &c., method of, by a pendulum-valve arrangement.	Jan.	12, 1858	XII.
21285	Tomlinson, M	Composition for miniature cases, &c	Aug.	24, 1858	IV.
	Tompkins, Clark. (See Delahanty, J. P., assignor.)				
21387	Tower, Samuel	Roasting coffee, apparatus for	Aug.	31, 1858	V.
21708	Town, Edward and Calvin E	Books, machine for numbering the pages of	Oct.	5, 1858	XVIII.
	Townsend, E. (See Lackey, L., assignor.)				
	Townsend, Elmer. (See Sturtevant, B. F., assignor.)				
	Townsend, Elmer, *et al.* (See Philbrick, David, assignor.)				
	Townsend, William I. (See Batchelder, W. W., assignor.)				
20670	Toy, P. W	Port-folio file	June	22, 1858	XVIII.
21728	Tozer, J. F., assignor to George W. Gregory	Gas-burner	Oct	5, 1858	V.
20105	Tracy, Edward H	Breakwaters, &c., frames or caissons of	April	27, 1858	IX.
21284	Trageser, John	Vats, apparatus attached to steam coils in	Aug.	24, 1858	IV.
	Treadwell, John G. (See Pepper, Calvin, assignor.)				
541	Treadwell, W. B	Car-wheels, railroad	Mar.	30, 1858	Reissue.
21707	Treadwell, W. B	Stoves and furnaces, coal, lining for	Oct.	5, 1858	V.
21785	Treat, Joseph A.	Gate, farm	Oct.	12, 1858	IX.
21036	Trimmer, B. T	Grain, machine for cleaning	July	27, 1858	I.
21632	Trimmer, B. T	Pump, rotary	Sept.	28, 1858	XI.
21528	Tripp, Erwin B.	Printing-press	Sept.	14, 1858	XVIII.
19052	Tripp, George W	Dentist's operating-chair	Jan.	5, 1858	XX.
19176	Troost, Lewis, assignor to John A. M. Battle	Electro-galvanic batteries, method of registering the speed back or forward, and distances passed over by railroad trains by means of.	Jan.	19, 1858	VIII.
21633	Trowbridge, William H.	Stand, embroidery and sewing	Sept.	28, 1858	XVII.
20227	Troxel, John S	Harvester	May	11, 1858	I.
	True, Lorenzo W. (See Lythe, Alston, & True.)				
21388	Truesdell, L. E	Bridge	Aug.	31, 1858	IX.
21093	Trump, J. V	Harvester	Aug.	3, 1858	I.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21786	Tucker, J. C., and L. Lanzweert	Sugar, manufacture of	Oct. 12, 1858	IV.
	Tucker, Stephen, D. (See Tom & Tucker.)			
21160	Tucker, W	Bit, variable boring	Aug. 10, 1858	XIV.
21787	Tucker, William	Cultivator	Oct. 12, 1858	I.
22388	Tucker, William	Dynamometer	Dec. 21, 1858	VIII.
19388	Turley. Marshall	Plough	Feb. 16, 1858	I.
20596	Turnbull, A. E	Locomotive-signals	June 15, 1858	VI.
21389	Turner, Alexander, Redden Bess, and Hervy Sloan.	Seeding-machine	Aug. 31, 1858	I.
21642	Turner, Alexander. assignor to himself and Redden Bess and H. Sloan.	Drills, seed	Sept. 28, 1858	I.
	Turner, E. S. (See Stone, Draper, assignor.)			
19899	Turner, Josiah, assignor to himself and E. Burke	Grain-separator	April 6, 1858	I.
21454	Turner, Rufus M	Trap for animals	Sept. 7, 1858	XXII.
	Turner, S. B. (See Ingersoll, S., assignor.)			
20228	Turner, S. S	Lasts	May 11, 1858	XVI.
22316	Turner, Thomas	Cultivator	Dec. 14, 1858	I.
	Tuska, P. H. (See Schroeder, C.)			
990	Tuttle, E. A., and Thomas Barry	Compass-stand	Feb. 23, 1858	Design.
20106	Tuttle, Edward A	Register and ventilator, warm-air	April 27, 1858	V.
21582	Tuttle, John L	Gin, cotton	Sept. 21, 1858	III.
	Tylee, T. (See Pratt & Tylee.)			
20671	Tyler, C. N	Gas-retort	June 22, 1858	IV.
22463	Tyler, C. N	Gas, illuminating, apparatus for generating	Dec. 28, 1858	IV.
20456	Tyler, John	Water-wheel	Dec. 1, 1858	XI.
20685	Tyler, P. B., W. Jones, and B. Lathrop, assignors to P. B. Tyler.	Riveting-machine	June 22, 1858	II.
22269	Tyler, S. G., assignor to himself and G. J. Laage and J. W. Barnum.	Sewing-machine	Dec. 7, 1858	III.
	Tyler, S. M. (See Reeve & Tyler.)			
19218	Tyler, Samuel W	Harvester	Jan. 26, 1858	I.
19053	Tyng, Levi B	Rails for railroads	Jan. 5, 1858	IX.

	Tyrrell, Eliza C. (See Haskins & Macardle, assignors.)			
21224	Uhlinger, W. P	Sewing-machine	Aug. 31, 1858	III.
22464	Uhlinger, William P	Closet for sewing-machines	Dec. 28, 1858	XVII.
21455	Uhry, H., and H. A. Lutgens	Valves of steam-engines, operating	Sept. 7, 1858	VI.
19318	Underwood, Henry	Belting, lap-joints for	Feb. 9, 1858	XIII.
20309	Underwood, J. C., and T. J. Bargis	Fishing-rods, tips for	May 18, 1858	XXII.
	Union Sewing Machine Co. (See Hook, A. H., assignor.)			
19593	Urquhart, W	Life-preserving raft of buoyant mattresses	Mar. 9, 1858	VII.
20107	Ustick, S	Brick-machine	April 27, 1858	XV.
19658	Utley, G	Plough	Mar. 16, 1858	I.
20229	Utley, Grey	Ordnance, repeating	May 11, 1858	XIX.
20906	Vail, A. and T	Dishes, earthen ware	July 13, 1858	XVII.
19389	Vail, Charles M	Churn	Feb. 16, 1858	I.
	Valentine, A. A. (See Gale, W. S., assignor.)			
19960	Van Allen, C. D., and S. Avery	Soda-fountain	April 13, 1858	IV.
19803	Van Anden, William	Harvester	Mar. 30, 1858	I.
21456	Van Anden, William	Copying apparatus, portable	Sept. 7, 1858	XVIII.
20230	Van Anken, Minor	Washing-machine	May 11, 1858	XVII.
20597	Van Brunt, G. J	Gun-carriage	June 15, 1858	XIX.
20521	Vance, D. M	Smut-machines	June 8, 1858	XIII.
20525	Vandegrift, A. J	Grain-separator	June 8, 1858	I.
21529	Vandemark, A. B. and M	Fence, portable field	Sept. 14, 1858	IX.
21037	Van De Mark, C	Fences, field, triangular brace for locking the panels of.	July 27, 1858	IX.
19883	Vandenburg, W	Table, ironing	April 6, 1858	XVII.
19390	Vandenburg, William, and J. Harvey	Table, ironing	Feb. 16, 1858	XVII.
20231	Vandenburg, W	Table, ironing	May 11, 1858	XVII.
20108	Van Der Veer, B. M	Railroad stations, machinery for supplying tenders with water at.	April 27, 1858	IX.
20532	Vander Woerd, Charles, assignor to Alvan Clark & Sons.	Hose-coupling	June 8, 1858	XI.
22207	Vandesande, Peter, assignor to himself and Martin Vanderevert.	Straw cutter	Nov. 30, 1858	I.
20965	Van Deventer, T	Paper-hangings, apparatus for hanging up and carrying off.	July 20, 1858	XVIII.
22208	Van Diver, John W	Seeding-machine	Nov. 30, 1858	I.
19522	Van Doren, Isaac	Harvester	Mar. 2, 1858	I.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19523	Van Doren, Isaac	Harvesters, rake for	Mar. 2, 1858	I.
19594	Van Doren, Isaac	Valve for steam-engines	Mar. 9, 1858	VI.
19726	Van Doren, Isaac	Motion, reciprocating and rotary	Mar. 23, 1858	XIII.
19884	Van Doren, Isaac	Harvester	April 6, 1858	I.
	Van Doren, J. (See Glover, Carlos W., assignor.)			
	Van Doren, John. (See Murray & Van Doren.)			
22475	Van Doren, John, assignor to himself, B. Murray, and C. W. Glover.	Stacking agricultural products	Dec. 28, 1858	I.
19663	Van Doren, John, assignor to J. Van Doren and B. Murray.	Dumping-boxes for agricultural purposes	Mar. 16, 1858	I.
22209	Van Dusen, Washington	Propeller	Dec 1, 1858	VII.
22317	Van Dusen, Washington	Dry-dock and marine railways, adjustible cradles for.	Dec. 14, 1858	IX.
19319	Van Duzer, Aaron	Harvester, grain and grass	Feb. 9, 1858	I.
22211	Van Geison, William H	Nail-heads, machine for plating	Nov. 30, 1858	II.
20009	Van Hoevenburg, Adam V	Iron cooking utensils, hollow cast	April 20, 1858	II.
21583	Van Houten, Charles	Planter, corn	Sept. 21, 1858	I.
19391	Van Loan, W. W	Plough	Feb. 16, 1858	I.
22139	Van Oeckelen, Cornelius J	Musical instruments, wind	Nov. 23, 1858	XVIII.
22210	Van Steenburgh, Hiram, and Joel Egnor	Ice, apparatus for hoisting and storing	Nov. 30, 1858	XXII.
22260	Van Vleck, J. P	Saw set	Dec. 7, 1858	II.
21541	Van Vliet, Cornelius W., assignor to New England Pin Company.	Pin-sticking machine	Sept 14, 1858	II.
20232	Varney, Thomas	Lamp, vapor, burner for	May 11, 1858	V.
20310	Vascon, S., and A. Guirand	Mill, grinding	May 18, 1858	XIII.
	Vauclain, James. (See Lilly, Vauclain, & Lilly.)			
	Vaughn, A. (See Routh & Vaughn.)			
19804	Vaughn, Horace	Steel and iron, tempering and hardening	Mar. 30, 1858	II.
1038	Vedder, N. S	Stove, cooking	Aug. 10, 1858	Design.
1039	Vedder, N. S	Stove, parlor	Aug. 10, 1858	Design.
1040	Vedder, N. S	Stove, parlor	Aug. 10, 1858	Design.
973	Vedder, N. S., assignor to George W. Eddy	Stove	Jan. 5, 1858	Design.

1027	Vedder, N. S., assignor to George W. Eddy	Stove	July	13, 1858	Design.
1055	Vedder, N. S., assignor to George W. Eddy	Stove, cooks'	Oct.	5, 1858	Design.
982	Vedder, N. S , and Ezra Ripley, assignors to L. Potter & Co.	Stove	Jan.	12, 1858	Design.
992	Vedder, N. S., and Ezra Ripley, assignors to Lewis Potter.	Stove-plates	Feb.	23, 1858	Design.
1037	Vedder, N. S., and Ezra Ripley, assignors to N. S. Vedder.	Stove-box	Aug.	10, 1858	Design.
984	Vedder, N. S., and William L. Sanderson, assignors to George Warren.	Stove	Jan.	12, 1858	Design.
983	Vedder, N. S., and William L. Sanderson, assignors to L Potter & Co.	Stove	Jan.	12, 1858	Design.
20747	Ventress, J A	Gin, cotton	June	29, 1858	III.
20233	Very, Samuel, jr	Ships' lower sails or courses, working	May	11, 1858	VII.
19740	Vickerstaff, Joseph, assignor to Martin Landenberger.	Knitting-machine	Mar.	23, 1858	III.
19168	Vidal, Ulysses B	Sawing machine, scroll	Jan.	19, 1858	XIV.
	Vincent, I. J. (See Mann, R. J., assignor.)				
22398	Vincent, Reed	Plough	Dec.	21, 1858	I.
21161	Voelter, Henry	Paper-pulp, reducing wood fibres to	Aug.	10, 1858	III.
20966	Von Schwarz, J.	Steatite articles, manufacture of.	July	20, 1858	IV.
19457	Von Unwerth, Hartwich	Garden tools	Feb.	23, 1858	I.
1065	Vose, Samuel D	Stove-plates	Nov.	23, 1858	Design.
1066	Vose, Samuel D.	Stove-plates	Nov.	23, 1858	Design.
1067	Vose, Samuel D	Stove-plates	Nov.	23, 1858	Design.
1068	Vose, Samuel D	Stove-plates	Nov.	23, 1858	Design.
22097	Vrooman, Daniel	Ship-building	Nov.	16, 1858	VII.
20184	Vrooman, H. S., assignor to Henry Albro	Sawing-machine	May	4, 1858	XIV.
20832	Wade, R. M	Trunk-protector	July	6, 1858	XVI.
20748	Wade, W. W.	Lamp-caps, method of fastening the neck-tube in.	June	29, 1858	V.
19885	Wade, William W., and Charles Burnham	Lamp-attachment	April	6, 1858	V.
23390	Wade, William W., and Francis T. Cordis	Labels for trees, &c	Dec.	21, 1858	XXII.
	Wadsworth, S. (See Mackintosh & Wadsworth.)				
22212	Wagener, Elijah	Guano and other fertilizers, machine for distributing.	Nov.	30, 1858	I.
20109	Wagner, J. Z. A	Brick-machine	April	27, 1858	XV.
19054	Wainwright, H., and S. T. Williams	Planter, potato	Jan.	5, 1858	I.
21038	Wait, W. B	Car-brake, railroad	July	27, 1858	X.
583	Waite, Charles B., and Joseph W. Sener	Coffee-pot	Aug.	10, 1858	Reissue.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20457	Waite, D. B	Harvester	June 1, 1858	I.
19164	Wakefield, Charles A	Carpet-fastener	Jan. 19, 1858	XVII.
19165	Wakefield, Charles A	Tracks, joints of railroad	Jan. 19, 1858	IX.
21097	Waldron, M. J	Railroad-rails	Aug. 3, 1858	IX.
20749	Wales, A	Planter, seed	June 29, 1858	I.
22465	Wales, Sigourney	Lamp, vapor, burner	Dec. 28, 1858	V.
19269	Wales, Thomas C	Boots, gaiter shoes and, water-proof	Feb. 2, 1858	XVI.
21095	Walker, Andrew	Gas, apparatus for purifying	Aug. 3, 1858	IV.
22391	Walker, Andrew	Gas, apparatus for purifying	Dec. 21, 1858	IV.
19320	Walker, F. M	Corn-husker	Feb. 9, 1858	I.
	Walker, G. (See Brooks & Walker.)			
22140	Walker, Henry	Sewing-needles, manufacture of	Nov. 23, 1858	III.
20833	Walker, R. P	Hulling rice, machine for	July 6, 1858	I.
21913	Walker, R. P	Rice, machinery for pearling, polishing, and finishing.	Oct. 26, 1858	XIII.
22042	Walker, Samuel	Loom, fringe	Nov. 9, 1858	III.
	Wall, Charles. (See Stewart, John, assignor.)			
20598	Wallace, Thomas, jr	Skirt-hoops, clasp for	June 15, 1858	XXI.
21995	Walton, Joseph	Seeding-machine	Nov. 2, 1858	I.
20908	Wampler, J. M	Surveyor's graphodometer, automatic mechanism for operating.	July 13, 1858	VIII.
	Ward, F. G. and F. T. (See Safford, George E., assignor.)			
21996	Ward, J. N	Car-brake	Nov. 2, 1858	IX.
19458	Ward, L. F	Corn-husker	Feb. 23, 1858	I.
	Ward, W. C. (See Stone & Ward.)			
19268	Ward, W. H	Railways, turning-tables for	Feb. 2, 1858	IX.
21094	Warden, W. R	Fire-place	Aug. 3, 1858	V.
	Warder, Brokaw, & Child. (See Harding, Thomas, assignor.)			
	Warder, Brokaw, & Child. (See Brokaw, John W., assignor.)			

22318	Ware, Elijah	Valve-gear, slide of steam-engines	Dec.	14, 1858	VI.
20834	Ware, W. P	Muff, ear, chcek, and chin	July	6, 1858	XXI.
20110	Warker, Thomas	Gas, carbonic-acid, apparatus for generating	April	27, 1858	IV.
21788	Warlick, F. C	Steam-generator	Oct.	12, 1858	VI.
22098	Warlick, Noah	Bed-bottom, spring	Nov.	16, 1858	XVII.
20458	Warner, C	Marble, machine for working	June	1, 1858	XV.
20750	Warner, C. A	Bedstead	June	29, 1858	XVII.
19063	Warner, Ezra J., assignor to himself, William H. Warncr, and Rufus E. Hitchcock.	Cans, instrument for opening	Jan.	5, 1858	XVII.
	Warner, J. B. (See Davis & Warner.)				
19596	Warner, Joseph	Carpet-stretcher	Mar.	9, 1858	XVII.
20523	Warner, Joseph F	Hydraulic-ram	June	8, 1858	XI.
20234	Warren, Alonzo, and E. Damon, jr	Water-wheel	May	11, 1858	XI.
	Warren, Fuller, & Morrison. (Sec Hathway, David, assignor.)				
	Warren, George. (See Vedder & Sanderson, assignors.)				
21634	Warren, Owen G	Telegraph-cables, method of laying submarine	Sept.	28, 1858	VIII.
20835	Warren, S. W	Steam-alarm and safety apparatus	July	6, 1858	VI.
20968	Warren, W	Plough	July	20, 1858	I.
21709	Warren, William M	Skirt-hoops, slides for	Oct.	5, 1858	XXI.
22043	Warth, Albin	Lathe for turning wood	Nov.	9, 1858	XIV.
	Washington, Francis B. (See Snell, Edward S., assignor.)				
20836	Washington, B. H	Furnace	July	6, 1858	V.
2010	Waterbury, C. A	Paper, apparatus for damping	April	27, 1858	XVIII.
	Waterhouse, George B. (See Bowers, M., assignor.)				
21096	Watcrhouse, John	Gas, apparatus for purifying	Aug.	3, 1858	IV.
	Waterman, Cornelia, administratrix. (See Russell & Waterman.)				
21039	Waterman, H	Steel rollers, making	July	27, 1858	II.
19219	Waterman, Henry	Car-springs, railroad	Jan.	26, 1858	X.
21286	Waterman, Henry	Wire and steel, tempering	Aug.	24, 1858	II.
1007	Waterman, N	Stand, towel	May	25, 1858	Design.
20907	Waterman, N	Refrigerator	July	13, 1858	XVII.
1032	Waterman, Nathanicl	Stands, towel	Aug.	3, 1858	Design.
1043	Waterman, Nathaniel	Roll-pans	Aug.	17, 1858	Design.
1046	Waterman, Nathaniel	Pans, bread	Aug.	31, 1858	Design.
19270	Waters, Elisha	Paper-boxes, manufacturing angular	Feb.	2, 1858	III.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20967	Waters, G., and J. W. Harnett	Rectifying, apparatus for	July 20, 1858	IV.
19524	Waters, Harvey	Scythes, manufacture of	Mar. 2, 1858	II.
	Waters, J. M. (See Barrett, Lee, & Waters.)			
19972	Watson, John F., assignor through mesne assignments to Baldwin & Co.	Watch-cases	April 13, 1858	VIII.
587	Watson, John F., assignor to William E. Baldwin and E. Bliss.	Watch-cases	Aug. 17, 1858	Reissue.
586	Watson, John F., assignor to William E. Baldwin and E. Bliss.	Watch-cases	Aug. 17, 1858	Division of reissue.
	Watson, W. H. (See Wolfe, H. R., assignor.)			
608	Watt & Burgess, through mesne assignments to William F. Ladd and Morris L. Keen.	Paper pulp, manufacture of	Oct. 5, 1858	Reissue.
19321	Watt, George	Plough	Feb. 9, 1858	I.
21710	Waugh, John	Paper hangings, machine for turning the edges of	Oct. 5, 1858	XVIII.
20979	Weatherbee, E. D., assignor to himself and L. Harding,	Meter, fluid	July 20, 1858	XI.
19900	Weatherhead, Davis L., and James T. Henry, assignors to themselves, John M. Smith, and William Campbell.	Gas-retort, portable	April 6, 1858	IV.
202	Webber, E	Shingle-machine	June 15, 1858	Add'l imp't.
20381	Webster, A. W	Doors and attachment for opening and closing	May 25, 1858	II.
20673	Webster, W	Vessels, masting and rigging	June 22, 1858	VII.
20751	Webster, W	Propellers, attaching and housing	June 29, 1858	VII.
20672	Webster, William	Gearing for machinery	June 22, 1858	XIII.
20909	Webster, William	Smoke-stack for steam-vessels	July 13, 1858	V.
	Weed, C. (See Cram & Weed.)			
21530	Weed, Charles	Tanks, water, mode of filling at railway-stations	Sept. 14, 1858	IX.
19525	Weeks, Abner B	Kiln, lime	Mar. 2, 1858	XV.
21392	Weeks, George W	Yokes, ox	Aug. 31, 1858	I.
20980	Weeks, J. J., assignor to Susan Weeks	Motion, converting rotary into reciprocating	July 20, 1858	XIII.
22044	Weimer, Peter L	Metal pipe, machine for coiling	Nov. 9, 1858	II.
19668	Weisman, Joseph	Graphite in reducing metals, using	Mar. 16, 1858	IX.

21162	Weldon, S. R.	Seeding-machine	Aug.	10, 1858	I.
19970	Wellman, John T., assignor to Chas. O Thompson	Signs, door-plate, &c	April	13, 1858	XVIII.
21225	Wells, Alexander	Potatoes, machine for digging	Aug.	17, 1858	I.
22392	Wells, David	Stove	Dec.	21, 1858	V.
22393	Wells, Ezra	Glass furnaces and pots, manufacture of	Dec.	21, 1858	XV.
20910	Wells, H	Saw-mill block	July	13, 1858	XIV.
19166	Wells, Hiram	Sawing-machines, circular, arrangement of devices to feed and gig back the carriage in	Jan.	19, 1858	XIV.
19727	Wells, John	Mill-bushes	Mar.	23, 1858	XIII.
21457	Wells, Jonathan W	Alarm-lock	Sept.	7, 1858	XXII.
20179	Wells, L T	Printing-presses, tympans for	May	4, 1858	XVIII.
21859	Wells, Lemuel T	Printing-presses, paper feeder for	Oct.	19, 1858	XVIII.
19167	Wells, M. D. and A	Shingles, method of butting and pointing the bolt to be sawed into.	Jan.	19, 1858	XIV.
22141	Wells, M. D., and H. Hagans	Threshing-machine	Nov.	23, 1858	I.
19272	Wells, Morris	Belts, shifting	Feb.	2, 1858	XIII.
21789	Wells, Wallace	Engines, construction of cylinders and pistons for pumps and steam.	Nov.	2, 1858	VI.
20112	Wells, William	Mattress, folding	April	27, 1858	XVII.
20969	Welsh, Joseph	Loom	July	20, 1858	III.
21098	Welsh, Joseph	Loom	Aug.	3, 1858	III.
20752	Welte, Joseph	Fire-ladder	June	29, 1858	XXII.
19393	Wemple, Jacob, V. A., and Andrew	Harvesters, raking attachment for	Feb.	16, 1858	I.
19530	Wendell, Isaac P	Car-axles, railroad, boxes and journals for	Mar.	2, 1858	X.
	Wendell, Isaac P. and J. L. (See Howson, Henry, assignor.)				
20599	Wentworth, H. S	Fence, field	June	15, 1858	IX.
20911	Wentworth, J. B	Leather-shaving knife	July	13, 1858	XVI.
21711	Werk, M	Acids, fatty, apparatus for manufacturing	Oct.	5, 1858	IV.
	Wessan, Daniel B. (See Harrington, F. H., assignor.)				
20753	West, H. B., and H. F. Willson	Sewing-machine	June	29, 1858	III.
20837	West, H. E	Bonnets and other articles of varying thickness, machinery for pressing.	July	6, 1858	III.
	West, Thomas. (See Maliphant, C., assignor.)				
	Westbrook, Herringshaw, & Parker. (See Parker, Sidney, assignor.)				
22319	Westcott, Charles S	Lock	Dec.	14, 1858	II.
20459	Weston, C. H	Spoke-shave	June	1, 1858	XIV.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19271	Weston, James M	Garments, machine for drafting	Feb. 2, 1858	XXI.
19392	Wetmore, J. W	Gravimotometer	Feb. 16, 1858	VIII.
20926	Wharton, J., and N. Bartlett, assignor to Joseph Wharton.	Furnace for manufacturing oxide of zinc	July 13, 1858	V.
	Wheat, C. (See Lewis, Dunning, & Wheat.)			
21790	Wheat, Corydon	Corn-eradicator	Oct. 12, 1858	XX.
22045	Wheeler, C. D	Sewing-machine	Nov. 9, 1858	III.
21100	Wheeler, Darius, and Luman Carpenter	Sewing-machine	Aug. 3, 1858	III.
21099	Wheeler, E	Cars, sleeping, for railroads	Aug. 3, 1858	X.
20382	Wheeler, E. D	Soda-water apparatus, portable	May 25, 1858	IV.
19526	Wheeler, Elbridge	Horse-shoes	Mar. 2, 1858	II.
19971	Wheeler, J. W., assignor to himself and C. D. Williams.	Brooms, machine for manufacturing splints for	April 13, 1858	XVII.
19220	Wheeler, Norman W	Engine, steam, arrangement of passages and valves for cushioning the pistons of.	Jan. 26, 1858	VI.
22320	Wheeler, Norman W	Valves of steam-engines, apparatus for operating	Dec. 14, 1858	VI.
999	Wheeler, R., and S. A. Bailey	Stove, cooks'	May 4, 1858	Design.
	Wheeler, Robert. (See Lovejoy & Wheeler.)			
22321	Whetstone, John L	Valve gear of steam engines	Dec. 14, 1858	VI.
19669	Whinfield, Henry	Boiler, steam	Mar. 16, 1858	VI.
22213	Whipple, Asa L	Car-brake, railroad	Nov. 30, 1858	X.
19394	Whipple, Cullen	Cotton, &c., drawing	Feb. 16, 1858	III.
	Whipple, Milton D. (See Fitts & Whipple.)			
21931	Whipple, Milton D., assignor to Alfred B. Ely	Cloth, fulling in the piece, machinery for	Oct. 26, 1858	III.
21930	Whipple, Milton D., assignor to Alfred B. Ely	Cloth, felt, forming bats for	Oct. 26, 1858	III.
21932	Whipple, Milton D., assignor to Alfred B. Ely	Cotton, combing, machinery for	Oct. 26, 1858	III.
19599	Whipple, Stephen M	Car-brake, railroad	Mar. 9, 1858	X.
19273	Whissen, Isaac	Mill-stones, dressing	Feb. 2, 1858	XIII.
21860	Whitaker, S. H	Nut-machine	Oct. 19, 1858	II.
21531	Whitaker, Thomas	Screw-cutter	Sept. 14, 1858	II.
21712	Whitcomb, George	Rake, hay	Oct. 5, 1858	I.
	White, C. N. (See Mitchell, V. N., assignor.)			

	White, Cyrus. (See Puffer, Milton G., assignor.)			
19395	White, Daniel, jr	Lathes, rest attachment for	Feb. 16, 1858	XIV.
19595	White, E. B	Bench hook	Mar. 9, 1858	XIV.
	White, Edward. (See Bishop, Gilbert, assignor.)			
21393	White, Franklin W	Planter, corn	Aug. 31, 1858	I.
	White, H. (See Calkins & White.)			
21458	White, Henry	Brick-machine	Sept. 7, 1858	XV.
20767	White, J. P., assignor to himself and F. Fox	Heating tires, apparatus for	June 29, 1858	V.
20675	White, John	Cars on the track, machine for replacing	June 22, 1858	X.
21713	White, Joseph	Sewing-machine	Oct. 5, 1858	III.
	White, L. (See Bumgarner & White.)			
22046	White, L., and J. T. Bumgarner	Drills, rock	Nov. 9, 1858	IX.
21304	White, Le Roy, assignor to E. W. Sperry, E. Hurlbut, and J. H. Ashmead.	Burnishing-machine	Aug. 24, 1858	II.
22226	White, Luke	Potatoes, machine for digging	Aug. 17, 1858	I.
22394	White, Norman S., and Aaron Denio	Auger-shanks, method of attaching cutter-lips to	Dec. 21, 1858	XIV.
19819	White, O., assignor to Henry C. James	Lightning-conductor	Mar. 30, 1858	VIII.
19961	White, R	Fire-arm, revolving	April 13, 1858	XIX.
21542	White, Samuel, assignor to Harlow Herrick	Harrow	Sept. 14, 1858	I.
20011	White, T. B.	Girders, truss, metallic shoes for the braces of	April 20, 1858	IX.
22466	White, William	Tools, making edge	Dec. 28, 1858	II.
20113	White, W. B., and John A. Whitford	Bottles, machine for washing	April 27, 1858	XXII.
19055	Whitehead, Jessee	Harvester	Jan. 5, 1858	I.
19805	Whiting, J. M., and G. F. Wilson	Screws, wood	Mar. 30, 1858	II.
19820	Whiting, James M., assignor to himself, George F. Wilson, and Alfred Anthony.	Carriage-wheels, hubs of	Mar. 30, 1858	X.
20970	Whiting, William	Electro-magnetic house-alarm	July 20, 1858	VIII.
21791	Whitman, Alden	Water-wheel and chute	Oct. 12, 1858	XI.
21287	Whitman, H	Planter, corn	Aug. 24, 1858	I.
20383	Whitmarsh, Samuel	Composition for artificial leather	May 25, 1858	IV.
21040	Whitmore, Joseph	Boilers, steam, alarm-gauge for	July 27, 1858	V.
20674	Whitmore, S. H	Lubricating engines, oil cups for	June 22, 1858	XII.
186	Whitney, Baxter D	Wooden surfaces, planed, machine for smoothing	Jan. 12, 1858	Add'l imp't.
19115	Whitney, Chauncey B., assignor to Phillip Case	Water-wheels, chute for	Jan. 12, 1858	XI.
20524	Whitney, Sironia	Lock, door	June 8, 1858	II.
20853	Whittlesey, N. P., assignor to James A. Frary	Faucet	July 6, 1858	XI.
20010	Whittemore, David H	Bit-holder	April 20, 1858	XIV.
19322	Whyte, Thomas B	Planting potatoes, machine for	Feb. 9, 1858	I.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
22332	Wiard, Thomas, assignor to G. W. and H. W. Pitken, and W. L. P. Wiard.	Plough	Dec. 14, 1858	I.
	Wickersham, M. S. (See Eakins, Sanil, assignor.)			
22322	Wicks, H. D	Valves of steam-engines	Dec. 14, 1858	VI.
21288	Wicks, L. J	Corn-shelling machine	Aug. 24, 1858	I.
20533	Widmer, J., assignor to himself and H. Gilbert	Engine, steam, mode of applying the power of the	June 8, 1858	VI.
21399	Widmer, J., assignor to himself and H. Gilbert	Engines, steam, cut-off for	Aug. 31, 1858	VI.
20384	Wiegand, S. L	Motion, changing rotary into reciprocating	May 25, 1858	XIII.
21101	Wiegand, S. L	Registering the motion of machinery, method of	Aug. 3, 1858	VIII.
	Wiggin, G. B. (See Hoard, J. W., assignor.)			
19274	Wiggin, Joseph H	Planter, seed	Feb. 2, 1858	I.
20913	Wight, H. C	Clamp, floor	July 13, 1858	XIV.
19056	Wilcox, A. N	Lathe for turning wood	Jan. 5, 1858	XIV.
21227	Wilcox, L	Grain-separators	Aug. 17, 1858	I.
21289	Wilcox, O. D	Legs, artificial, attachment to	Aug. 24, 1858	XX.
	Wilcox, P. (See Hadcock & Wilcox.)			
	Wilcox, W. (See Michel, Wilcox, & Miller.)			
19221	Wilder, L. C	Harvester, corn	Jan. 26, 1858	I.
	Wildman, F. A. (See Hinkley, Jonas, assignor.)			
	Wiley, W. Y. (See Okey, J. B., assignor.)			
21915	Wilkins, John	Worts, apparatus for steaming	Oct. 26, 1858	IV.
19598	Wilkinson, F. L	Gin, cotton	March 9, 1858	III.
20460	Wilkinson, Henry	Pliers, manufacture of	June 1, 1858	II.
21103	Wilkinson, J. H	Stove	Aug. 3, 1858	V.
	Willard, C. W. (See Bonney & Willard.)			
1012	Willcox, J	Sewing-machine stand	June 1, 1858	Design.
21585	Williams, C. A., and R. & G. A. Morse	Skate irons	Sept. 21, 1858	XXII.
	Williams, C D. (See Wheeler, J. W., assignor.)			
19459	Williams, Charles	Brush blocks, whitewash	Feb. 23, 1858	XVII.
21584	Williams, Charles	Paper, &c., coloring apparatus for	Sept. 21, 1858	XVIII.
20132	Williams, Charles, assignor to himself and Chas. J. Shepard.	Radiator, syphonic	April 27, 1858	V.

22270	Williams, E. M., assignor to himself and John Gable.	Lamp, vapor, burner for	Dec. 7, 1858	V.
22099	Williams, Irvin A	Lamp-case, locomotive	Nov. 16, 1858	V.
19323	Williams, J. B	Bottle-stopper	Feb. 9, 1858	XXII.
20012	Williams, L. W	Mill, quartz	April 20, 1858	XIII.
21459	Williams, Olly	Fences, wire, method of allowing for expansion and contraction of.	Sept. 7, 1858	IX.
20973	Williams, R. G	Press, cotton	July 20, 1858	XIII.
20600	Williams, S	Harvester	June 8, 1858	I.
	Williams, S. T. (See Wainright & Williams.)			
21916	Williams, T	Window stop	Oct. 26, 1858	IX.
22214	Williams, Thomas E	Hinge for window-blinds	Nov. 30, 1858	II.
19659	Williams, William	Anchor	March 16, 1858	VII.
21460	Williams, Ziba	Butter-worker	Sept. 7, 1858	XVII.
19886	Williamson, Joshua C	Plough	April 6, 1858	I.
22221	Willis, N. J., assignor to Chase & Fuller	Shuttles, weavers', manufacture of	Nov. 30, 1858	III.
569	Willis, William W	Stumps, mode of extracting	June 22, 1858	Reissue.
21715	Willits, W. Irvin	Drill, seed	Oct. 5, 1858	I.
22215	Willmot, William	Cultivator	Nov. 30, 1858	I.
20188	Willmott, W. W., assignor to himself and H. F. Gardner.	Boot-trees	May 4, 1858	XVI.
19222	Willoughby, J. D	Planters, seed	Jan. 26, 1858	I.
21102	Willoughby, J. D	Planters, seed	Aug. 3, 1858	I.
20610	Willoughby, W., assignor to himself and W. H. Wizeman.	Car-wheels	June 15, 1858	X.
19528	Wills, Harry A	Horse-shoe machine	March 2, 1858	II.
	Willson, H. F. (See West & Willson.)			
19462	Willson, Thomas H. and Daniel F	Straw-cutter	Feb. 23, 1858	I.
19460	Wilson, A	Electro-galvanic batteries, method of lighting gas by.	Feb. 23, 1858	VIII.
21914	Wilson, A. B	Gas, apparatus for generating	Oct. 26, 1858	IV.
	Wilson, Ebenezer, Charles Wilson administrator of.	Lard, method of rendering	Oct. 8, 1858	Extension.
	Wilson, G. F. (See Whiting & Wilson.)			
	Wilson, George F. (See Whiting, James M., assignor.)			
	Wilson, Isaac. (See Haley, Wilson, & Lyon.)			
20120	Wilson, James N., and George W. Payne	Gin, cotton	April 27, 1858	III.
20601	Wilson, John A	Dress, hulling-stone	June 15, 1858	XIII.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
20235	Wilson, Robert	Nets, fly	May 11, 1858	XXII.
22323	Wilson, Robert	Drilling metals, machine for	Dec. 14, 1858	II.
20461	Wilson, T. H., J. E., J. F., and R. J	Horse-power	June 1, 1858	XIII.
19887	Wilmarth, S. W., S. L. Hay, and D. N. B. Coffin	Propellers, coupling of, shafting for	April 6, 1858	VII.
19529	Wilton, Nathaniel	Lock, piano	March 2, 1858	II.
	Winans, H. N. (See Wood & Winans.)			
19890	Winans, Ross	Engines, steam, grates for	April 6, 1858	VI.
19888	Winans, Ross	Engines, steam, pistons for	April 6, 1858	VI.
19889	Winans, Ross	Locomotive engine	April 6, 1858	VI.
19962	Winans, Ross	Locomotive engine	April 13, 1858	VI.
20117	Winans, Ross	Locomotive boilers, furnaces of	April 27, 1858	VI.
20116	Winans, Ross	Locomotive engines, boilers for	April 27, 1858	VI.
20114	Winans, Ross	Locomotive engine boilers, fire-box of	April 27, 1858	VI.
20115	Winans, Ross	Locomotive boilers, fire-box of	April 27, 1858	VI.
21290	Winans, Ross	Locomotive engine	Aug. 24, 1858	VI.
21917	Winans, Ross and Thomas	Vessels, hulls of steam	Oct. 26, 1858	VII.
21918	Winans, Ross and Thomas	Vessels, steam	Oct. 26, 1858	VII.
21919	Winans, Ross and Thomas	Steamers, ocean, construction of	Oct. 26, 1858	VII.
21920	Winans, Ross and Thomas	Vessels, steam, connexion of steam-engines with propellers of.	Oct. 26, 1858	VII.
19396	Winans, Thomas	Carriage-spring guard	Feb. 16, 1858	X.
22001	Winant, D. D., assignor to W. R. Winant	Billiard table	Nov. 2, 1858	XXII.
21559	Winant, W. R.	Billiard cushions	Aug. 10, 1858	XXII.
20525	Windell, Thomas	Harvester	June 8, 1858	I.
21163	Windle, Thomas H.	Bee-hive	Aug. 10, 1858	I.
19223	Windsor, George W	Car-brake, railroad	Jan. 26, 1858	X.
	Windsor, I. H. (See McClure & Marsh, assignors.)			
22261	Winegar, Caleb	Gates, farm, mode of opening and closing, by approaching vehicles.	Nov. 30, 1858	IX.
20676	Wingate, George	Paddle-wheel	June 22, 1858	VII.
21291	Wingo, C. C	Obstetrical chair	Aug. 24, 1858	XX.
21532	Winham, Aldridge	Vessels, sunken, apparatus for raising	Sept. 14, 1858	VII.

21390	Winn, James H.	Valve, safety, and pressure-gauge	Aug. 31, 1858	VI.
21237	Winslow, J. L., assignor to J. N. Winslow	Steam-cock	Aug. 17, 1858	VI.
19531	Winslow, John B.	Spinning-machines, machinery for regulating the supply of roving to	Mar. 2, 1858	III.
20121	Winter, Benjamin	Mill, corn and cobb	April 27, 1858	XIII.
	Wintringham, David L. (See Chichester, Lewis J., assignor.)			
21643	Wise, Emanuel, assignor to himself and Charles L. Wood.	Roofing-machine	Sept. 28, 1858	IX.
19579	Wise, William	Trenching-plough	Mar. 9, 1858	IX.
20914	Wisner, A. J.	Boot-trees	July 13, 1858	XVI.
20526	Witherle, J. B.	Sash-fastener	June 8, 1858	II.
21714	Withers, A. Q.	Gin, cotton	Oct. 5, 1858	III.
22324	Withers, John	Fire-escape ladder	Dec. 14, 1858	V.
22222	Withington, Solander	Mortises. dove-tail, machine for cutting	Nov. 30, 1858	XIV.
19399	Witting, F. W.	Press, cotton	Feb. 16, 1858	XII.
19109	Witting, L.	Creepers	Jan. 12, 1858	XXII.
	Wizeman, W. H. (See Willoughby, W., assignor)			
21228	Wolfe, Daniel	Printing-press	Aug. 17, 1858	XVIII.
21729	Wolfe, H. R., assignor to himself, David Staples, and W. H. Watson.	Saw-gummer	Oct. 5, 1858	II.
19728	Wolfersberger, Frederic	Meat-cutting machine	Mar. 23, 1858	XVII.
20462	Wolff, S.	Millstone dress	June 1, 1858	XIII.
20972	Wolff, S.	Mill, flouring	July 20, 1858	XIII.
20838	Wolle, Francis	Paper bags, machine for making	July 6, 1858	XVIII.
	Wombaugh, Brothers, & Co. (See Russell, E. T., assignor.)			
	Wombaugh, M. M. (See Abernethy & Wombaugh.)			
	Wombaugh, Mahlon M. (See Feeger, Daniel H., assignor.)			
20677	Wood, A. A.	Cop-waste, machine for picking	June 22, 1858	III.
21586	Wood, A. H.	Gas-burner	Sept. 21, 1588	V.
642	Wood, A. H., assignor to I. R. Foster	Gas-burner	Dec. 28, 1858	Reissue.
19057	Wood, Adam	Engine, steam, oscillating	Jan. 5, 1858	VI.
	Wood, Charles L. (See Wise, Emanuel, assignor.)			
22052	Wood, George, and John King, assignors to themselves and William Lawrence.	Dredging-crane	Nov. 9, 1858	IX.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
19397	Wood, Joseph	Switch, railroad safety	Feb. 16, 1858	IX.
19601	Wood, Joseph, and H. N. Winans	Boiler, steam	Mar. 9, 1858	VI.
20395	Wood, O. T., assignor to Thomas R. Wood	Casting faucets	May 25, 1858	II.
20118	Wood, S. W	Metallic nuts, making	April 27, 1858	II.
20602	Wood, S. W	Hat-bodies, machine for sizing	June 15, 1858	III.
19276	Wood, Simeon	Pumps, mode of operating pistons of	Feb. 2, 1858	XI.
	Wood, Stephen W. (See Bills & Wood.)			
1002	Wood, T. H., J. E. Roberts, and H. S. Hubbell	Stove, cooks'	May 11, 1858	Design.
22047	Wood, Timothy C	Grubbing-machine	Nov. 9, 1858	IX.
19275	Wood, Twentyman	Shingle-machines, method of feeding the bolt in	Feb. 2, 1858	XIV.
20119	Wood, W. A	Harvesters, raking and delivering attachment to	April 27, 1858	I.
22468	Wood, W. A	Harvesters, cutting apparatus for	Dec. 28, 1858	I.
	Wood, W. S. (See Shell, A. N., assignor.)			
21475	Wood, William W. W., assignor to John Rice	Governor for steam-engines	Sept. 14, 1858	VI.
	Woodbury, J. A. (See Thayer, H. H., assignor.)			
19806	Woodbury, James A	Tonguing and grooving, rotary cutters for	March 30, 1058	XIV.
20527	Woodbury, James A	Planing-machine	June 8, 1858	XIV.
20385	Woodman, Horace	Drill, power and hand	May 25, 1858	II.
21461	Woodruff, J. B	Sewing-machine	Sept. 7, 1858	III.
20014	Woodruff, Samuel	Planting hoe, seed	April 20, 1858	I.
22467	Woods, Oliver E	Life-preserving trunk	Dec. 28, 1858	VII.
	Woods, S. A. (See Thayer, H. H., assignor.)			
19461	Woodward, Abijah	Shoe-peg machine	Feb. 23, 1858	XVI.
19398	Woodward, Calvin, and George M	Hydraulic valve	Feb. 16, 1858	XI.
22395	Woodward, J. A	Smut-machine	Dec. 21, 1858	XIII.
21462	Woodward, Jabez M	Life-boat constructed of matresses	Sept. 7, 1858	VII.
19807	Woodward, Joel	Mill	March 30, 1858	XIII.
19892	Woodward, Joel	Bolting, dusting, and separating the ground material, machinery for.	April 6, 1858	XIII.
	Woodworth, Senter, and Goss. (See Sherwood, Allen.)			
19600	Woodworth, Oliver, jr., and John D. Page	Fibrous materials, machine for picking	March 9, 1858	III.

21792	Woody, John	Harvester	Oct. 12, 1858	I.
19891	Woolman, John	Bolt, door	April 6, 1858	II.
	Wooster, G. H. (See Peck, Russell.)			
	Worcester, L. (See Carlisle & Worcester.)			
19227	Worden, Leonard J., assignor to himself and Edward L. Swartwout.	Boot-legs, method of securing straps upon	Jan. 26, 1858	XVI.
20013	Work, Thomas K	Curtain-fixtures	April 20, 1858	XVII.
21104	Worth, I. G	Shoe-pegs, machine for manufacturing	Aug. 3, 1858	XVI.
20236	Worthen, W. E	Shutters, metallic rolling	May 11, 1858	IX.
22476	Wrangle, Moses, assignor to Hunter, Keller, & Co.	Iron, cast, mercury bottle	Dec. 28, 1858	II.
21716	Wright, Algernon S	Marks on cloth, &c., trade, machine for stamping	Oct. 5, 1858	XXII.
21391	Wright, D. B., and L. Sawyer	Carriage bows, attaching the props of	Aug. 31, 1858	X.
20839	Wright, E. S	Bedstead-fastening	July 6, 1858	XVII.
22325	Wright, Edward S, and Theodore P. Gould	Cannon, breach-loading	Dec. 14, 1858	XIX.
	Wright, George F. (See Burt & Wright.)			
21229	Wright, W	Gas-burner	Aug. 17, 1858	IV.
19527	Wright, William D	Alarm, burglar's	March 2, 1858	XXII.
20754	Wright, William M	Plates, use of dentists' pattern	June 29, 1858	XX.
20912	Wust, John	Dumping coal-buckets, self	July 13, 1858	IX.
19664	Wyllys, Newell, assignor to himself and Charles Collins.	Looms, power, set-off motion for	Mar. 16, 1858	III.
21292	Wyman, James	Blind-slats, machine for setting the staples in	Aug. 24, 1858	IX.
21293	Wymblad, H	Lock	Aug. 24, 1858	II.
21041	Wythes, W. W	Drawing instruments	July 27, 1858	VIII.
21861	Yale, Linus, jr	Joiner's square, device for adjusting to a right-angle the.	Oct. 19, 1858	XIV.
22048	Yale, Linus, jr	Lock	Nov. 9, 1858	II.
22469	Yates, Gilbert	Fastener, door	Dec. 28, 1858	II.
20840	Yates, Henry	Boilers, steam, furnaces of	July 6, 1858	VI.
	Yates, J. J. (See Nevins & Yates.)			
19463	Yeakel, Benjamin	Harvesters	Feb. 23, 1858	I.
21105	Yeiser, F	Electro-magnetic engine	Aug. 3, 1858	VIII.
21042	Yerby, E	Batter-machine	July 27, 1858	XVII.
22002	Yerkes, S., assignor to himself and George Yerkes	Vessels, rudders for	Nov. 2, 1858	VII.
	Yocum, S. H. (See O'Byrne & Yocum.)			
19169	Yost, G. W. N	Collar and hames, horse, combined	Jan. 19, 1858	XVI.
20122	Yost, G. W. N	Plough, gang	April 27, 1858	I.
20123	Yost, Henry	Washing-machine	April 27, 1858	XVII.
21463	Young, Calvin	Bullet-machine	Sept. 7, 1858	XIX.

Patentees of inventions and designs, 1858.

No.	Name of patentee.	Invention or discovery.	Date.	Class.
21635	Young, Charles A. & Solomon W	Wire springs for furniture, machine for making	Sept. 28, 1858	II.
22142	Young, Edward	Umbrellas, parasols and	Nov. 23, 1858	XXI.
20974	Young, George, jr	Clothes-rack	July 20, 1858	XVII.
	Young, J. E. (See Darby & Young.)			
22326	Young, Joseph	Harvesters, raking attachment to	Dec. 14, 1858	I.
21587	Young, McClintock, jr	Harvester	Sept. 21, 1858	I.
19177	Young, Moses M., assignor to himself, Harvey T. Litchfield, and Joseph G. Hamblin.	Gauges, steam spring pressure	Jan. 19, 1858	VI.
21921	Young, Samuel S	Arithmetical proof-rule	Oct. 26, 1858	VIII.
20915	Young, W. J	Surveyor's tripod, head for	July 13, 1858	VIII.
20603	Younglove, M. C	Drill, seed	June 15, 1858	I.
20237	Zeigler, George W	Car-brake, railroad	May 11, 1858	X.
21043	Zeng, Henry	Pump	July 27, 1858	XI.
19602	Zimmerman, Charles M	Drums, military, construction of	Mar. 9, 1858	XVIII.
21997	Zuern, Daniel, and L. L. Bevan	Press, hand, self-inking	Nov. 2, 1858	XVIII.
20015	Zwart, B	Kiln, lime	April 20, 1858	XV.

CLASSIFIED LIST OF PATENTS FOR INVENTIONS AND DISCOVERIES GRANTED DURING THE YEAR 1858.

CLASS I—AGRICULTURE, *including implements and operations.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19520	Bee-hive	Solomon Stansberry	Knoxville, Tenn	Mar. 2, 1858.
19931	Bee-hive	K. P. Kidder	Burlington, Vt	April 13, 1858.
20202	Bee-hive	E. P. French	Nashua, N. H	May 11, 1858.
20417	Bee-hive	P. J. Furlong	Galen, N. Y	June 1, 1858.
20508	Bee-hive	Thomas Prosser	Birmingham, Pa	June 8, 1858.
21163	Bee-hive	Thomas H. Windle	Wagontown, Pa	Aug. 10, 1858.
21912	Bee-hive	Peter Taltavull	Washington, D. C	Oct. 26, 1858.
22030	Bee-hive	Ebenezer W. Phelps	Elizabeth, N. J	Nov. 9, 1858.
22059	Bee-hive	Asa Blood, sr	Norfolk, Va	Nov. 16, 1858.
22309	Bee-hive	Joseph D. Sanderson	Stetson, Me	Dec. 14, 1858.
19288	Cards for currying cattle	C. S. Dickerman	Lansingburgh, N. Y	Feb. 9, 1858.
19034	Churn	Silas F. Lefler	Racine, Wis	Jan. 5, 1858.
19117	Churn	Michael L. Bauder	Elyria, Ohio	Jan. 19, 1858.
19310	Churn	Enos Page	Streetsboro', Ohio	Feb. 9, 1858.
19334	Churn	H. D. Baker	Pittstown Corners, N. Y	Feb. 16, 1858.
19389	Churn	Charles M. Vail	Susquehanna Depot, Pa	Feb. 16, 1858.
19782	Churn	John A. Jordan	Shelbyville, Tenn	Mar. 30, 1858.
19828	Churn	Harvey Brown	New York, N. Y	April 6, 1858.
20025	Churn	James Macnish	Berlin, Wis	April 20, 1858; reissued Nov 30, 1858.
20062	Churn	T. B. Harper	Xenia, Ohio	April 27, 1858.
20089	Churn	G. S. Rarey	Columbus, Ohio	April 27, 1858.
20189	Churn	William Brown	Duncannon, Pa	May 11, 1858.
20740	Churn	W. H. Tambling	Berlin, Wis	June 29, 1858.
20730	Churn	Alfred Rose	Penn Yan, N. Y	June 29, 1858.
20803	Churn (A)	James Macnish	Berlin, Wis	July 6. 1858.
20804	Churn (B)	James Macnish	Berlin, Wis	July 6, 1858.
20898	Churn	N. H. Sherburne	Compton, Ill	July 13, 1858.
20878	Churn	James Hatfield and H. M. Goldsmith	Falmouth, Ind Burlington, Iowa	July 13, 1858.

List of patents for inventions, 1858—Class I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21010	Churn	M. R. Marcell	Dansville, N. Y	July 27, 1858.
21176	Churn	James S. Appleton	White River Junction, Vt.	Aug. 17, 1858.
21374	Churn	John F. Smith and Wightman Brown	Galen, N. Y. Rose, N. Y	Aug. 31, 1858.
21501	Churn	Daniel Johnson	New York, N. Y	Sept 14, 1858.
21575	Churn	Andrew Ralstone	West Middletown, Pa.	Sept. 21, 1858.
21637	Churn	George K. Farrington, assignor to D B. Tiffany.	Xenia, Ohio	Sept. 28, 1858.
21871	Churn	James H Bump	Morris, N. Y	Oct. 26, 1858.
22093	Churn	Charles W. Stafford	Burlington, Iowa	Nov. 16, 1848.
22090	Churn	Harry and Royal V. Robie	Eaton, N. Y	Nov. 16, 1858.
20545	Churns, operating	A. G. Brush	Great Bend, Pa.	June 15, 1858.
22022	Churns, operating	Joseph Forsyth	Wheeling, Va.	Nov. 9, 1858.
21221	Churns, &c., operating	Moses Swan	Potter Hill, N. Y	Aug. 17, 1858.
20891	Coffee, apparatus for cleaning and polishing	William Newell	Philadelphia, Pa.	July 13, 1858.
19142	Corn-husker	John D Heaton and W. A. Clark	Dixon, Ill.	Jan. 19, 1858.
19325	Corn-husker	Abbott R. Davis, assignor to himself and B. D. Moody.	East Cambridge, Mass	Feb. 9, 1858.
19326	Corn-husker	Daniel Lombard, assignor to himself and George F. Richardson.	Boston, Mass.	Feb. 9, 1858.
19320	Corn-husker	F. M. Walker	Greensboro', N. C.	Feb. 9, 1858.
19458	Corn-husker	L. F. Ward	Marathon, N. Y	Feb. 23, 1858.
19512	Corn-husker	Warner Pickett and Andrew Hills	Naugatuck, Conn.	Mar. 2, 1858.
19552	Corn-husker	Joseph and James L. Fagan	San Antonio, Texas	Mar. 9, 1858.
20163	Corn-husker	Charles N. Lewis	Seneca Falls, N. Y	May 4, 1858.
20223	Corn-husker	Daniel C. Smith	Tecumseh, Mich	May 11, 1858.
20253	Corn-husker	Joseph Cawthra	Rochester, N. Y	May 18, 1858.
20360	Corn-husker	B. B. Meacham	Ridleysville, Fla.	May 25, 1858.
20568	Corn-husker	Lucius Leavenworth	Trumansburgh, N. Y.	June 15, 1858.
20637	Corn-husker	Burton Hazen	Cincinnati, Ohio	June 22, 1858.
20653	Corn-husker	L. R. Mears	South Abington, Mass	June 22, 1858.

20849	Corn-husker	L. A. Grover, assignor to himself and N. T. Spear.	Roxbury, Mass	July 6, 1858.
21363	Corn-husker	C. J. C. Peterson	Davenport, Iowa	Aug. 31, 1858.
21522	Corn-husker	N. T. Spear	Boston, Mass,	Sept. 14, 1858.
22440	Corn, machine for picking	S. W. May	Galesburg, Ill	Dec. 28, 1858.
19160	Corn-sheller	Jeremiah P. Smith	Hummelstown, Penn	Jan. 19, 1858.
19253	Corn-sheller	Joseph R. Lindner	Cincinnati, Ohio	Feb. 2, 1858.
19603	Corn-sheller	Daniel G. Greene, assignor to himself and George H. Greene.	North Bridgewater, Mass	Mar. 9, 1858.
19809	Corn-sheller	Peter Bergen, assignor to Jane Ann Bergen.	New York, N. Y	Mar. 30, 1858.
19862	Corn-sheller	Thomas W. McFarlan and Lewis H. Davis	Salem, Ohio Westchester, Penn	April 6, 1858.
19915	Corn-sheller	A. B. Davis	Philadelphia, Penn	April 13, 1858.
20003	Corn-sheller	Elmon Parker	Baltimore, Md	April 20, 1858.
20266	Corn-sheller	Ray Green	Cussawago, Penn	May 18, 1858.
20650	Corn-sheller	W. H. Main	Liverpool, Ohio	June 22, 1858.
20831	Corn-sheller	P. P. Taft	Taftsville, Vermont	July 6, 1858.
21174	Corn-sheller	Calvin Adams	Pittsburg, Penn	Aug. 17, 1858
21594	Corn-sheller	A. Adams	Sandwich, Ill	Sept. 28, 1858.
21288	Corn-shelling machine	L. J. Wicks	Racine, Wis	Aug 24, 1858.
22206	Corn-shelling machine	George W. Tolhurst	Liverpool, Ohio	Nov. 30, 1858.
21254	Corn-stalks in the field, machine for cutting up	Francis M. Green	Sullivan, Ill	Aug. 24, 1858.
19651	Corn-stalks, machine for cutting and crushing	Henry and Amos Hersch	Lancaster county, Penn	Mar. 9, 1858.
19311	Cotton-fields, machine for cutting brush from	Elias Peck	Canton, Ill	Feb. 9, 1858.
21667	Cotton-scraper	C. A. Gaines	Watson, Miss	Oct. 5, 1858.
19151	Cranberry-separator	David Perham	Tyngsboro', Mass	Jan. 19, 1858.
19248	Cultivator	James Houck	Clinton, Indiana	Feb. 2, 1858.
19584	Cultivator	D. B., S., and L. Rogers	Pittsburg, Penn	Mar. 9, 1858.
19742	Cultivator	Joseph Banks	Dadeville, Ala	Mar. 30, 1858.
20207	Cultivator	L. W. Kelley	Brunswick, Ohio	May 11, 1858.
20260	Cultivator	John Endsley and E. Fletcher	Abington, Indiana	May 18, 1858.
20712	Cultivator	W. A. Hopkins	Vicksburg, Miss	June 29, 1858.
20798	Cultivator	D. C. Hubbard	Okolona, Miss	July 6, 1858.
21055	Cultivator	William Adams	Detroit, Mich	Aug. 3, 1858.
21128	Cultivator	N. W. Fraser and A. J. McLellan	Laporte, Indiana	Aug. 10, 1858.
21170	Cultivator	Robert Sawyer, assignor to Wm. G. Brown.	Wales, Maine	Aug. 10, 1858.
21377	Cultivator	Nathaniel S. Smith	Buffalo, N. Y	Aug. 31, 1858.
21428	Cultivator	Israel Long	Terre Haute, Indiana	Sept. 7, 1858.
21625	Cultivator	T. W. Poole	Brunswick, Ohio	Sept. 28, 1858.

List of patents for inventions, 1858.—Class I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21690	Cultivator	B. S. Morgan	Delhi, Iowa	Oct. 5, 1858.
21739	Cultivator	C. H. and S. E. Carrington	Weymouth, Ohio	Oct. 12, 1858.
21787	Cultivator	William Tucker	Blackstone, Mass	Oct. 12, 1858.
21763	Cultivator	Thomas M. Lee	Broad Ford, Va	Oct. 12, 1858.
21857	Cultivator	Thomas S. Stevens	Pepperell, Mass	Oct. 19, 1858.
22215	Cultivator	William Willmot	Wilmington, Del	Nov. 30, 1858.
22316	Cultivator	Thomas Turner	Marysville, Ohio	Dec. 14, 1858.
22437	Cultivator	Howard Mann	East Attleboro' Mass.	Dec. 28, 1858.
20823	Cultivator, cotton	Asberry Smith	Ashville, Ala	July 6, 1858.
20605	Cultivator, rotary	E. T. Bussell, assignor to Wambaugh Brothers & Co.	Shelbyville, Indiana	June 15, 1858.
19234	Cultivator-teeth	Moses Bucklin	Grafton, N. H	Feb. 2, 1858.
21212	Drill, grain	Adam Pritz	Dayton, Ohio	Aug. 17, 1858.
21736	Drill, grain	Samuel Binkley	Dublin, Indiana	Oct. 12, 1858.
19633	Drill, seed	Robert Hamilton	Franklin, Indiana	Mar. 16, 1858.
19617	Drill, seed	C. B. Brown	Alton, Illinois	Mar. 16, 1858.
19808	Drill, seed	Geo. S. Ball, assignor to Benjamin Kuhns.	Dayton, Ohio	Mar. 30, 1858.
19924	Drill, seed	John Harris	Shippensburg, Penn	April 13, 1858.
20377	Drill, seed	J. C. Stevens	Lee, Mass	May 25, 1858.
20003	Drill, seed	M. C. Younglove	Cleveland, Ohio	June 15, 1858.
20946	Drill, seed	Jacob W. Kirk	Rising Sun, Indiana	July 20, 1858.
21316	Drill, seed	O. H. S. Brumfield	Centrefield, Indiana	Aug. 31, 1858.
21642	Drill, seed	Alexander Turner, assignor to himself, Redden Bess, and H. Sloane.	Franklin, Indiana	Sept. 28, 1858.
21715	Drill, seed	W. Irvin Willits	Milton, Indiana	Oct. 5, 1858.
21018	Drill, wheat	E. O. Bryden	La Fayette, Ind	July 27, 1858.
19663	Dumping-boxes for agricultural purposes	John Van Doren, assignor to J. Van Doren and B. Murray.	Farm Ridge, Ill	Mar. 16, 1858.
22076	Feed-boxes for animals, automatic	Albert Goodyear, 2d	Hamden, Conn	Nov. 16, 1858.
19457	Garden tools	Hartwick Von Unwerth	Salem, Mass	Feb. 23, 1858.
21700	Grafts, root, machine for cutting	Sidney S. Rockwell	Vermontville, Mich	Oct. 5, 1858.
20196	Grain-cleaning machine	John De Rush	St. Mary's, Ohio	May 11, 1858.

20425	Grain-cleaning machine	Marquis L. Hall	Bridgeport, Conn	June 1, 1858.
20899	Grain-cleaning machine	N. H. Sherburne	Campton, Ill	July 13, 1858.
21662	Grain-cleaning machine	W. T. Fisher	Cleveland, Tenn	Oct. 5, 1858.
19643	Grain-cradle	John Leidy	Lamar, Penn	Mar. 16, 1858.
20809	Grain in bundles or sheaves, mode of securing	John P. Manny	Rockford, Ill	July 6, 1858.
20581	Grain, machine for cleaning	William Partridge, jr , and G. W. Shaw	Ellicott's Mills, Md	June 15, 1858.
20923	Grain, machine for cleaning	William H. Orr, assignor to William M. Griffiths & Co.	Martin's Ferry, Ohio	July 13, 1858.
21036	Grain, machine for cleaning	B. T. Trimmer	Rochester, N. Y	July 27, 1858.
	Grain, machine for fanning and assorting. (See Class XIII, letter G.)			
	Grain-measurer, self-regulating. (See Class VIII, letter M.)			
19140	Grain-separator	Ashman Hall	Dansville, N. Y	Jan. 19, 1858.
19899	Grain-separator	Josiah Turner, assignor to himself and E. Burke.	Sunapee, N. H	April 6, 1858.
19877	Grain-separator	Francis Schunks	York, Penn	April 6, 1858.
20522	Grain-separator	A. J. Vandegrift	Lexington, Ky	June 8, 1858.
20735	Grain-separator	H H. Seely and P. Griswold	Hudson, Mich	June 29, 1858.
21227	Grain-separator	L. Wilcox	Hudson, Mich	Aug. 17, 1858.
21383	Grain-separator	John D. Tifft	Cuyahoga, Ohio	Aug. 31, 1858.
21877	Grain-separator	Aaron Foster	Quincy, Ill	Oct. 26, 1858.
21945	Grain-separator	William R. Cox	Delhi, Iowa	Nov. 2, 1858.
21573	Grass, &c., machine for cutting	Cyrus H. McCormick	Chicago, Ill	Sept. 21, 1858.
22212	Guano and other fertilizers, machine for distributing.	Elijah Wagner	Westminster, Md	Nov. 30, 1858.
19281	Harrow	Jabez Robins, assignor to himself, Daniel K. Haines, and S. Richardson.	Leominster, Mass	Feb. 2, 1858.
19259	Harrow	Samuel J. Orange	Grayville, Ill	Feb. 2, 1858.
19489	Harrow	Orman Coe	Port Washington, Wis	Mar. 2, 1858.
19494	Harrow	William De Witt and O. D. Barrett	Cleveland, Ohio	Mar. 2, 1858.
20195	Harrow	J. C. Conkey	Washington, Ohio	May 11, 1858.
20325	Harrow	V. M. Chaffee	Grayville, Ill	May 25, 1858.
20410	Harrow	John S. Davis	Washington, Ohio	June 1, 1858.
21113	Harrow	Addison Berdan	Macon, Mich	Aug. 10, 1858.
21153	Harrow	Jeremiah Routh and Abel Vaughn	Grayville, Ill	Aug. 10, 1858.
21269	Harrow	Daniel B. Neal	Mount Gilead, Ohio	Aug. 24, 1858.
21403	Harrow	David C. Ayres	Lumberland, N. Y	Sept. 7, 1858.
21439	Harrow	Samuel J. Orange and George Beidelman	Grayville, Ill	Sept. 7, 1858.

List of patents for inventions, 1858—Class I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21542	Harrow	Samuel White, assignor to Harlow Herrick	Penfield, Ohio	Sept. 14, 1858.
19365	Harrow, revolving	W. A. Horrall and R. G. Sirwell	Grayville, Ill	Feb. 16, 1858.
21265	Harrow, rotary	William H. Main	Liverpool, Ohio	Aug. 24, 1858.
21580	Harrow, rotary	Salathiel S. Thompson	Heller's Corners, Ind	Sept. 21, 1858.
21577	Harrow, rotary	Jabez Robins	Boston, Mass	Sept. 21, 1858.
22026	Harrow, rotary	William H. Main	Liverpool, Ohio	Nov. 9, 1858.
19055	Harvester	Jesse Whitehead	Manchester, Va	Jan. 5, 1858.
19137	Harvester	Ezra Emmert	Franklin Grove, Ill	Jan. 19, 1858.
19218	Harvester	Samuel W. Tyler	Greenwich, N. Y	Jan. 26, 1858.
19298	Harvester	M. G. Hubbard	Penn Yan, N. Y	Feb. 9, 1858.
19377	Harvester	Frederick Nishwitz	Brooklyn, N. Y	Feb. 16, 1858.
19344	Harvester	Albert D. Briggs	Springfield, Mass	Feb. 16, 1858.
19447	Harvester	Charles Roberts	Livonia, N. Y	Feb. 23, 1858.
19411	Harvester	George S. Curtis	Chicago, Ill	Feb. 23, 1858.
19463	Harvester	Benjamin Yeakel	Allentown, Penn	Feb. 23, 1858.
19422	Harvester	Charles Howell	Cleveland, Ohio	Feb. 23, 1858.
19442	Harvester	H. A. Parkhurst	Fairfield, N. Y	Feb. 23. 1858.
19522	Harvester	Isaac Van Doren	Somerville, N. J	Mar. 2, 1858.
19486	Harvester	Willis L. Childs	Piermont, N. Y	Mar. 2, 1858.
19483	Harvester	J. S. Butterfield	Philadelphia, Pa	Mar. 2, 1858.
19590	Harvester	H. C. Smith	Cleveland, Ohio	Mar. 9, 1858.
19703	Harvester	J. M. Long, P. Black, and R. Allstatter	Hamilton, Ohio	Mar. 23, 1858.
19803	Harvester	William Van Anden	Poughkeepsie, N. Y	Mar. 30, 1858.
19749	Harvester	George E. Chenoweth	Baltimore, Md	Mar. 30, 1858.
19884	Harvester	Isaac Van Doren	Somerville, N. J	April 6, 1858.
19864	Harvester	W. K. Miller	Canton, Ohio	April 6, 1858.
19919	Harvester	D. W. Entrikin and L. H. Davis	West Chester, Penn	April 13, 1858.
19999	Harvester	Henry Marcellus	Amsterdam, N. Y	April 20, 1858.
20050	Harvester	R. Dutton	Dayton, Ohio	April 27, 1858.
20080	Harvester	J. B. McCormick	Versailles, Ky	April 27, 1858.
20152	Harvester	R. H. Fisher	Claremont, N. H	May 4, 1858.
20180	Harvester. (No. 1)	Lewis Miller, assignor to C. Aultman & Co	Canton, Ohio	May 4, 1858.

20181	Harvester. (No. 2)	Lewis Miller, assignor to C. Aultman & Co.	Canton, Ohio	May 4, 1858.
20182	Harvester. (No. 3)	Lewis Miller, assignor to C. Aultman & Co.	Canton, Ohio	May 4, 1858.
20221	Harvester	Oren Stoddard	Busti, N. Y	May 11, 1858.
20225	Harvester	H. C. Smith	Cleveland, Ohio	May 11, 1858.
20227	Harvester	John S. Troxel	Mount Pleasant, Penn	May 11, 1858.
20191	Harvester	C. B. Brown	Alton, Ill	May 11, 1858.
20271	Harvester	Martin Hallenbeck	Albany, N. Y	May 18, 1858.
20272	Harvester	Martin Hallenbeck	Albany, N. Y	May 18, 1858.
20334	Harvester	J. H. Conklin	Rockford, Ill	May 25, 1858.
20394	Harvester	W. H. Seymour and H Pease, assignors to W. H. Seymour and Dayton S. Morgan.	Brockport, N. Y	May 25, 1858.
20416	Harvester	A. B. J. Flowers	Greenfield, Ind	June 1, 1858.
20457	Harvester	D. B. Waite	Spring Water, N. Y	June 1, 1858.
20525	Harvester	Thomas Windell	New Albany, Ind	June 8, 1858.
20600	Harvester	S. Williams	Stockton, Cal	June 15, 1858.
20593	Harvester	S. H. Smith	Magnolia, Ill	June 15, 1858.
20719	Harvester	William F. Ketchum	Buffalo, N. Y	June 29, 1858.
20813	Harvester	Jeremiah Mitchell	Gosport, N. Y	July 6, 1858.
20806	Harvester	John P. Manny	Rockford, Ill	July 6, 1858.
21093	Harvester	J. V. Trump	Somerville, N. J	Aug. 3, 1858.
21125	Harvester	M. E. Ellsworth	Hudson, Ohio	Aug. 10, 1858.
21401	Harvester	R. L. Allen	New York, N. Y	Sept. 7, 1858.
21587	Harvester	McClintock Young, jr	Frederick, Md	Sept. 21, 1858.
21612	Harvester	David S. McNamara	North Hoosick, N. Y	Sept. 28, 1858.
21681	Harvester	George F. & Moses Jerome	Mineola, N. Y	Oct. 5, 1858.
21792	Harvester	John Woody	Mount Vernon, Ind	Oct. 12, 1858.
21741	Harvester	George E. Cooper	Baltimore, Md	Oct. 12, 1858.
21804	Harvester	John K. Harris	Allensville, Ind	Oct. 12, 1858.
21827	Harvester	Rosewell H. Fisher	Claremont, N. H	Oct. 19, 1858.
21854	Harvester	Joseph D. Smith	Lancaster, Ohio	Oct. 19, 1858.
21993	Harvester	Charles T. Stetson	Amherst, Mass	Nov. 2, 1858.
22032	Harvester	Hosea W. Read	West Windsor, Vt	Nov. 9, 1858.
22084	Harvester	James S. Marsh	Lewisburg, Pa	Nov. 16, 1858.
22077	Harvester	Stephen Hull	Poughkeepsie, N. Y	Nov. 16, 1858.
22163	Harvester	Nicholas Clute	Dunnsville, N. Y	Nov. 30, 1858.
22203	Harvester	William & Thomas Schnebly	Hackensack, N. J	Nov. 30, 1858.
22237	Harvester	Henry Opp	Belleville, Ill	Dec. 7, 1858.
22312	Harvester	Oren Stoddard	Busti, N. Y	Dec. 14, 1858.
22345	Harvester	Chester Bullock	Jamestown, N. Y	Dec. 21, 1858.

List of patents for inventions, 1858—Class II.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22341	Harvester	J. A. Barrington	Fredericktown, Ohio	Dec. 21, 1858.
22074	Harvester, binding attachment to	William Grey	Nicholsville, Ohio	Nov. 16, 1858.
20215	Harvester, binding device for	George Notman	Deerfield, Ohio	May 11, 1858.
19221	Harvester, corn	L. C. Wilder	Lexington, N. C	Jan. 26, 1858.
19716	Harvester, corn	Thomas A. Risher	Circleville, Ohio	Mar. 23, 1858.
19822	Harvester, corn	J. V. Adair	Varick, N. Y	April 6, 1858.
20067	Harvester, corn	Adam Humberger	Somerset, Ohio	April 27, 1858.
20645	Harvester, corn	Darius Landon	Wyandotte, Ohio	June 22, 1858.
20628	Harvester, corn	R. B. Corbin & James Morris	St. Augustine, Ill	June 22, 1858.
21031	Harvester, corn	Albert Stoddard	Tecumseh, Mich	July 27, 1858.
21516	Harvester, corn	Isaac Reamer & Henry Miller	Conrad's Store, Va	Sept. 14, 1858.
22259	Harvester, corn	Bronson Murray and John Van Doren	Ottawa, Ill Farm Ridge, Ill	Dec. 7, 1858.
20066	Harvester, cotton	M. Hosford & J. C. Avery	Macon, Miss	April 27, 1858,
19360	Harvester, cutter for	John Gore	Fredonia, N. Y	Feb. 10, 1858.
21499	Harvester, cutting apparatus for	Charles Howell	Cleveland, Ohio	Sept. 14, 1858.
22468	Harvester, cutting apparatus of	W. A. Wood	Hoosick Falls, N. Y	Dec. 28, 1858.
19920	Harvester, cutting device for	D. W. Entrikin & L. H. Davis	West Chester, Pa	April 13, 1858.
21414	Harvester, cutting device for	C. P. Grouberg	Montgomery, Ill	Sept. 7, 1858.
20243	Harvester, finger or guard for	Lewis Miller, assignor to C. Aultman & Co.	Canton, Ohio	May 11, 1858.
19518	Harvester-finger	Henry C. Smith	Cleaveland, Ohio	Mar. 2, 1858.
20808	Harvester-finger	John P. Manny	Rockford, Ill	July 6, 1858.
19319	Harvester, grain and grass	Aaron Van Duzer	Goshen, N. Y	Feb. 9, 1858.
19938	Harvester, grain and grass	Henry Marcellus	Amsterdam, N. Y	April 13, 1858.
21063	Harvester, grain and grass	Robert Bryson	Schenectady, N. Y	Aug. 3, 1858.
22251	Harvester, grain and grass	M. G. Hubbard	Penn Yan, N. Y	Dec. 7, 1858.
21533	Harvester, guard-finger for	John W. Brokaw, assignor to Warder, Brokaw, & Child.	Springfield, Ohio	Sept. 14, 1858.
20618	Harvester, hemp	Thomas Berry	Louisburgh, Ky	June 22, 1858.
21840	Harvester, maize	C. B. Matthews	Oquawka, Ill	Oct. 19, 1858.
19019	Harvester, rake for	Samuel Comfort, jr	Morrisville, Pa	Jan. 5, 1858.
19523	Harvester, rake for	Isaac Van Doren	Somerville, N. J	Mar. 2, 1858.

21540	Harvester, raking and binding apparatus for	Allen Sherwood, assignor to E. P. Senter, Albert Goss, & Daniel Woodworth.	Auburn, N. Y	Sept. 14, 1858.
20805	Harvester, raking and binding attachment to	John P. Manny	Rockford, Ill	July 6, 1858.
19212	Harvester, raking and binding device for	Allen Sherwood	Auburn, N. Y	Jan. 26, 1858.
20119	Harvester, raking and delivering attachment to	W. A. Wood	Hoosick Falls, N. Y	April 27, 1858.
19085	Harvester, raking attachment for	James L. Fountain	Rockford, Ill	Jan. 12, 1858.
19378	Harvester, raking attachment for	James W. Patterson	Philadelphia, Pa	Feb. 16, 1858.
19393	Harvester, raking attachment for	Jacob V. A. & Andrew Wample	Chicago, Ill	Feb. 16, 1858.
20061	Harvester, raking attachment for	G V. Griffith	Sandusky, Ohio	April 27, 1858.
21552	Harvester, raking attachment for	Peter S. Crawford	Marengo, Ill	Sept 21, 1858.
19958	Harvester, raking attachment to	Oren Stoddard	Busti, N. Y	April 13, 1858.
20378	Harvester, raking attachment to	J. A. St. John	Janesville, Wis	May 25, 1858.
20411	Harvester, raking attachment to	D. O. DeWolf	New York, N. Y	June 1, 1858.
20475	Harvester, raking attachment to	John A. Barrington	Fredericktown, Ohio	June 8, 1858.
21437	Harvester, raking attachment to	John Nelson	Rockford, Ill	Sept. 7, 1858.
21847	Harvester, raking attachment to	Adam R. Reese	Phillipsburg, N. J	Oct. 19, 1858.
21940	Harvester, raking attachment to	W. W. Burson	Yates City, Ill	Nov. 2, 1858.
22326	Harvester, raking attachment to	Joseph Young	Marshalltown, Pa	Dec. 14, 1858.
20807	Harvester, track-clearer for	John P. Manny	Rockford, Ill	July 6, 1858.
22368	Harvesters, method of gathering grain upon and discharging it from the platform of.	Obed Hussey	Baltimore, Md	Dec. 21, 1858.
20515	Harvesting-machine	W. H. Seymour and D. S. Morgan	Brockport, N. Y	June 8, 1858.
21343	Harvesting-machine	H. G. Kaufmann	St. Louis, Mo	Aug. 31, 1858.
21869	Harvesting-machine, grain-discharging attachment to.	J. F. Black	Lancaster, Ill	Oct. 26, 1858.
19689	Hay-cock protector	O. R. Dinsmoor	Auburn, N. H	Mar. 23, 1858.
21150	Hay-elevator	E. M. Rees	Norristown, Pa	Aug. 10, 1858.
22062	Hay fed to stock, devices for saving the seed from.	Robert A. Campbell	Salem, Ind	Nov. 16, 1858.
20241	Hay, forks for elevating	C. E. and J. N. Gladding, assignors to Chas. E. Gladding.	Troy, Pa	May 11, 1858.
19921	Hay-knives	John Fasig	Jackson, Ohio	April 13, 1858.
20772	Hay, machine for raking and loading	J. B. Benton, J. F. Behn, and G. Bastian	Buffalo, N. Y	July 6, 1858.
19812	Hoes, manufacture of	Judson Knight, assignor to S. Boyd, assignor to R. W. Booth.	Newark, N. J	Mar. 30, 1858.
20030	Huller, rice	H. N. Black	Philadelphia, Pa	April 27, 1858.
19745	Hulling and cleaning clover-seed, machine for	J. V. Blackwell	Ovid, N. Y	Mar. 30, 1858.
20971	Hulling and cleaning rice, machine for	D. Henwood and J. Stephens, assignors to themselves and Thomas F. Rowland.	Brooklyn, N. Y	July 20, 1858.

List of patents for inventions, 1858—Class I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20249	Hulling and threshing clover, machine for	John C. Birdsell	Rush, N. Y	May 18, 1858.
20830	Hulling-machine, rice	J. F. Taylor	Charlestown, S. C	July 6, 1858.
19557	Hulling rice, machine for	A. M. George	Nashua, N. H	Mar. 9, 1858.
20138	Hulling rice, machine for	F. and L. Burdick	South East, N. Y	May 4, 1858.
20552	Hulling rice, machine for	Philip Dickenhof	Philadelphia, Pa	June 15, 1858.
20833	Hulling rice, machine for	R. P. Walker	New York, N. Y	July 6, 1858.
20860	Hulling rice, machine for	J. S. Bossard	Sumterville, S. C	July 13, 1858.
19018	Husking and shelling glove	Emil Cohen	Washington, D. C	Jan. 5, 1858.
	Manure-wagon. (See Class X, letter W.)			
19083	Mowing-machine	Henry Fisher	Canton, Ohio	Jan. 12, 1858.
19504	Mowing-machine	Charles Howell	Cleveland, Ohio	Mar. 2, 1858.
19913	Mowing-machine	William Crooke	New Hope, Pa	April 13, 1858.
20035	Mowing-machine	Thomas Burrall	Geneva, N. Y	April 27, 1858.
20164	Mowing-machine	Henry Marcellus	Amsterdam, N. Y	May 4, 1858.
20479	Mowing-machine	John Butter	Buffalo, N. Y	June 8, 1858.
21607	Mowing-machine	George F. and Moses Jerome	Mincola, N. Y	Sept. 28, 1858.
21777	Mowing-machine	Fisk Russell	South Boston, Mass	Oct. 12, 1858.
19936	Mowing-machine, track-clearer for	Abraham Marcellus	Amsterdam, N. Y	April 13, 1858.
19800	Peas, machine for shelling	William J. Stevenson	New York, N. Y	Mar. 30, 1858.
19198	Planter, corn	P. C. Mosier	Homer, Ill	Jan. 26, 1858.
19242	Planter, corn	Nathaniel Drake	Newton, N. J	Feb. 2; add'l imp't, Sept. 28; reissued, Dec. 14, 1858.
20024	Planter, corn	George Taylor, assignor to himself and John W. Free.	Richmond, Ind	April 20, 1858.
20074	Planter, corn	Oliver Lippincott	Camden, N. J	April 27, 1858.
20193	Planter, corn	R. J. Clay	St. Louis, Mo	May 11, 1858.
20297	Planter, corn	L. B. Phelps	Geneva, Ohio	May 18, 1858.
20467	Planter, corn	A. C. Carey, assignor to himself and A. B. Ely.	Ipswich, Mass	June 1, 1858.
20639	Planter, corn	Pascal Hatch	Norwich, Vt	June 22, 1858.
20781	Planter, corn	Warren Drummond	Woolbridge, N. J	July 6, 1858.

21180	Planter, corn	Thomas M. Bedgood	Cleveland, Ind	Aug. 17, 1858.
21187	Planter, corn	John S. Davis	Arcadia, Ohio	Aug. 17, 1858.
21287	Planter, corn	Horace Whitman	Kingsville, Ohio	Aug. 24, 1858.
21393	Planter, corn	Franklin W. White	Worcester, Mass	Aug. 31, 1858.
21404	Planter, corn	A. G. Babcock	Galesburg, Ill	Sept. 7, 1858.
21583	Planter, corn	Charles Van Houten	Sunbury, Ohio	Sept. 21, 1858.
22183	Planter, corn	Daniel Ladd	Dearborn, Mich	Nov. 30, 1858.
19438	Planter, cotton seed	Daniel B. Neal	Mount Gilead, Ohio	Feb. 23, 1858.
19874	Planter, cotton seed	James Ross	Midway, Alabama	April 6, 1858.
20049	Planter, cotton seed	J. T. Donovan and W. J. Fowler	Seguin, Texas	April 27, 1858.
20432	Planter, cotton seed	J. S. Higgins and R. Chapman	Darlington District, S. C	June 1, 1858.
20572	Planter, cotton seed	Arnold McDonald	Salem, Miss	June 15, 1858.
20694	Planter, cotton seed	E. T. Bostrom	Newnan, Ga	June 29, 1858.
21308	Planter, cotton seed	Horatio P. Allen	Bowling Green, Ky	Aug. 31, 1858.
19329	Planter, hand corn	John B. Fairbank, deceased Joshua Fairbank & Ed'n C. Durfee, adm'rs	New York, N. Y Leon, N. Y	Feb. 9, 1858.
19540	Planter, hand corn	H. F. Batcheller	Sterling, Ill	Mar. 9, 1858.
19833	Planter, hand corn	D. G. Coppin	Cincinnati, Ohio	April 6, 1858.
19054	Planter, potato	H. Wainwright and S. T. Williams	Farmingdale, N. J	Jan. 5, 1858.
19178	Planter, potato	John R. Albertson	Allegheny, Penn	Jan. 26, 1858.
19294	Planter, potato	Edward E. Hawley	New Haven, Conn	Feb. 9, 1858.
20001	Planter, potato	F. S. McWhorter	Smyrna, Del	April 20, 1858.
19010	Planter, seed	Henry F. Baker	Centreville, Ind	Jan. 5, 1858.
19026	Planter, seed	M. J. Hunt and J. H. Haines	Rising Sun, Md	Jan. 5, 1858.
19122	Planter, seed	Samuel Baker	Mount Pulaski, Ill	Jan. 19, 1858.
19126	Planter, seed	John A. Brown	Richmond, Ind	Jan. 19, 1858.
19222	Planter, seed	J. D. Willoughby	Pleasant Hall, Penn	Jan. 26, 1858.
19274	Planter, seed	Joseph H. Wiggin	Boston, Mass	Feb. 2, 1858.
19456	Planter, seed	Daniel L. Tilton	Mount Carmel, Ill	Feb. 23, 1858.
19404	Planter, seed	L. A. Butts	Cuba, N. Y	Feb. 23, 1858.
19579	Planter, seed	Joseph Redhead	Woodville, Miss	Mar. 9, 1858.
19549	Planter, seed	William C. Doss	Texana, Texas	Mar. 9, 1858.
19818	Planter, seed	Samuel Thompson, assignor to himself and A. W. Taggart.	Hopedale, Ohio	Mar. 30, 1858.
19953	Planter, seed	Thomas Russell	Waldoboro', Maine	April 13, 1858.
20158	Planter, seed	James J. Johnston	Allegheny, Penn	May 4, 1858.
20143	Planter, seed	James Charlton	Allegheny, Penn	May 4, 1858.
20440	Planter, seed	Elmore Parker	Baltimore, Md	June 1, 1858.
20651	Planter, seed	Joseph McKown	Gardstown, Va	June 22, 1858.

List of patents for inventions, 1858—CLASS I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20749	Planter, seed	Augustus Wales	Pontiac, Ill	June 29, 1858.
20738	Planter, seed	G. Smith and A. G. Perry	Clyde, Ohio	June 29, 1858.
20709	Planter, seed	R. B. Ground	Marine Town, Ill	June 29, 1858.
21034	Planter, seed	J. H. Thomas and P. P. Mast	Springfield, Ohio	July 27, 1858.
21102	Planter, seed	J. D. Willoughby	Carlisle, Penn	Aug. 3, 1858.
21112	Planter, seed	Addison Berdan	Macon, Mich	Aug. 10, 1858.
21127	Planter, seed	H. C. Fairchild	Brooklyn, Penn	Aug. 10, 1858.
21137	Planter, seed	E. W. Kimball	Ottawa, Ill	Aug. 10, 1858.
21217	Planter, seed	Jonathan H. Rose	Versailles, Ill	Aug. 17, 1858.
21397	Planter, seed	W. A. Mahaffy, assignor to John Greek	Carimona, Min Evansville, Ind	Aug. 31, 1858.
21440	Planter, seed	Benjamin Owen	Dayton, Ohio	Sept. 7, 1858.
22156	Planter, seed	J. F. Beckwith and A. G. Gage	Alabama, N. Y	Nov. 30, 1858.
22228	Planter, seed	Jarvis Case, assignor to himself and Wm. Baldwin.	Bloomington, Ill	Dec. 7, 1858.
22438	Planter, seed	F. M. Marshall	Seguin, Texas	Dec. 28, 1858.
20014	Planting hoes, seed	Samuel Woodruff	Sparta, N. J	April 20, 1858.
19322	Planting potatoes, machine for	Thomas B. Whyte	Greenwich, N. Y	Feb. 9, 1858.
19869	Planting potatoes, machine for	Jesse W. Pelletreau	East Moriches, N. Y	April 6, 1858.
19163	Plough	Thomas Thompson	Thompsonville, N. C	Jan. 19, 1858.
19125	Plough	Samuel R. Borum and William McClean	Norfolk, Va	Jan. 19, 1858.
19179	Plough	Joseph Banks	Dadeville, Ala	Jan. 26, 1858.
19262	Plough	Joseph O. Ramage	Lafayette, Ala	Feb. 2, 1858.
19321	Plough	George Watt	Richmond, Va	Feb. 9, 1858.
19388	Plough	Marshall Turley	Galesburg, Ill	Feb. 16, 1858.
19391	Plough	W. W. Van Loan	Catskill, N. Y	Feb. 16, 1858.
19401	Plough	Elijah Bloodworth	Thomaston, Ga	Feb. 16, 1858.
19455	Plough	Turney Sanford	Redding Ridge, Conn	Feb. 23, 1858.
19563	Plough	David Hoke	Byhalia, Miss	Mar. 9, 1858.
19658	Plough	Grey Utley	Louisburg, N. C	Mar. 16, 1858.
19725	Plough	Daniel L. Tilton	Mount Carmel, Ill	Mar. 23, 1858.
19706	Plough	Thomas McConaughy	Barnesville, Ala	Mar. 23, 1858.

19886	Plough	Joshua C. Williamson	Washington, Ga	April 6, 1858.
19878	Plough	Thaddeus S. Scoville	Elmira, N. Y	April 6, 1858.
19909	Plough	Thomas E. C. Brinley	Simpsonville, Ky	April 13, 1858.
20269	Plough	John M. Hall	Warrenton, Ga	May 18, 1858.
20659	Plough	Henry M. Platt	Darien, Ct	June 22, 1858.
20633	Plough	Alexander Dickson	Hillsboro', N. C.	June 22, 1858.
20790	Plough	J. P. Harris	Byhalia, Miss.	July 6, 1858.
20935	Plough	G. D. Colton	Galesburg, Ill	July 20, 1858.
20968	Plough	Walter Warren	Penn Yan, N. Y	July 20, 1858.
20984	Plough	S. R. Bliven	McDonough, N. Y.	July 27, 1858.
21167	Plough	Joseph Jones, assignor to Edmund Jones and Joseph Jones, jr.	New Castle, Del	Aug. 10, 1858.
21182	Plough	William Black	Manchester, Pa	Aug. 17, 1858.
21423	Plough	Samuel Hulbert	Ogdensburg, N. Y	Sept. 7, 1858.
21598	Plough	David Cockley	Lancaster, Pa	Sept. 28, 1858.
21630	Plough	B. B. Scofield	Andover, Ill.	Sept. 28, 1858.
21824	Plough	John Dickson	New Castle, Pa	Oct. 19, 1858.
21846	Plough	William Reany	Berzelia, Ga	Oct. 19, 1858.
21953	Plough	John Gehr	College of St. James, Md	Nov. 2, 1858.
21975	Plough	A. A. McMahen	Oxford, Miss.	Nov. 2, 1858.
22013	Plough	John M. Burke	Dansville, N. Y	Nov. 9, 1858.
22332	Plough	Thomas Wiard, assignor to G. W. and H. W. Pitken and W. L P. Wiard.	Louisville, Ky	Dec. 14, 1858.
22389	Plough	Reed Vincent	Rockton, Ill.	Dec. 21, 1858.
	Plough, bending mould-boards for. (See Class II, letter B.)			
20689	Plough, drain	Moses Barrowman	Buffalo, N. Y	June 29, 1858.
19077	Plough, gang	M. A. Cravath	Lodi, Ill	Jan. 12, 1858.
19652	Plough, gang	Lewis Roach	Covington, Ky.	Mar. 16, 1858.
20122	Plough, gang	G. W. N. Yost	Cincinnati, Ohio	April 27, 1858.
20342	Plough, gang	Jesse Frye	Mendota, Ill	May 25, 1858. Antedated Mar. 18, 1858.
20647	Plough, gang	Don C. Matteson	Stockton, Cal	June 22, 1858.
19496	Plough, hill-side	Samuel Dennis, jr	Jasper, N. Y	Mar. 2, 1858.
20812	Plough, hill-side	Modest Merk	Rochester, N. Y	July 6, 1858.
21306	Plough, hill-side	Henry S. Akins	Speedsville, N. Y	Aug. 31, 1858.
	Plough, mole. (See Class IX, letter P.)			
21547	Plough, press and drill	T. E. C. Brinly	Simpsonville, Ky	Sept. 21, 1858.
19412	Plough, shovel	Paul Dennis	Remus Heights, N. Y	Feb. 23, 1858.

List of patents for inventions, 1858—CLASS I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19427	Plough, steam	Peirce Klingle	Linnæan Hill, D. C	Feb. 23, 1858. Addi'l imp't Mar. 9, '58.
21661	Plough, steam	James W. Evans	New York, N. Y	Oct. 5, 1858.
	Plough, trenching. (See Class IX, letter T..)			
19215	Ploughing-machine	William Stoddard	Lowell, Mass.	Jan. 26, 1858.
19189	Ploughing, machine for	Joseph W. Fawkes	Christiana, Pa	Jan. 26, 1858.
20300	Ploughs, apparatus for cleaning the coulters of	Abner Reeder	Wrightstown, Pa	May 18, 1858.
	Ploughs, moulds for casting. (See Class II, letter C.)			
19849	Potato-digger	L. W. Harris	Waterville, N. Y	April 6, 1858.
20949	Potatoes, machine for digging	Malcom Little	Clyde, N. Y	July 20, 1858.
21226	Potatoes, machine for digging	Luke White	Essex, Vt	Aug. 17, 1858.
21225	Potatoes, machine for digging	Alexander Wells	Brooklyn, N. Y	Aug. 17, 1858.
21413	Potatoes, machine for digging	Nathaniel Gear	Zanesville, Ohio	Sept. 7, 1858.
21664	Rake, hay	Peter Fitzgerald	Constantine, Ohio	Oct. 5, 1858.
21712	Rake, hay	George Whitcomb	Port Chester, N. Y	Oct. 5, 1858.
21698	Rake, hay	Mathias Raezer	Reading, Pa	Oct. 5, 1858.
19420	Rake, horse	William Horning	New Lebanon, Ohio	Feb. 23, 1858.
21268	Rake, horse	Mirick Morgan	Lancaster, Pa.	Aug. 24, 1858.
21358	Rake, horse	L. H. Parson and George Houston	Middletown, N. Y.	Aug. 31, 1858.
22235	Rake, horse	George W. Hadcock and Parker Wilcox	Norway, N. Y	Dec. 7, 1858.
22232	Rake, horse	Christian Garver	Londonderry, Pa	Dec. 7, 1858.
19753	Rake, horse hay	Asahel Cowley	Harpersfield, N. Y	Mar. 30, 1858.
19975	Rake, horse hay	N. E. Allen	Trenton, Wis	April 20, 1858.
20844	Rake, horse hay	John F. Faust, assignor to himself and Richard M. Ross.	Lebanon, Ohio	July 6, 1858.
19687	Reaper, binding attachment to	A. F. French, assignor to George J. Stannard.	Franklin, Vt	Mar. 23, 1858.
19118	Reaper, hand	John W. Baltzly and W. Hobson	Pana, Ill	Jan. 19, 1858.
19367	Reaping and mowing machine	Charles Howell	Cleveland, Ohio	Feb. 16, 1858.
19904	Reaping and mowing machine	Charles Beach	Penn Yan, N. Y	April 13, 1858.
20212	Reaping and mowing machine	L. J. Williams and C. H. McCormick	Chicago, Ill	May 11, 1858.

20251	Reaping and mowing machine	J. W. Brokaw, assignor to Warder, Brokaw, & Child.	Springfield, Ohio	May 18, 1858.
20275	Reaping and mowing machine	Charles Howell	Cleveland, Ohio	May 18, 1858.
20887	Reaping and mowing machine	C. Moul	Hanover, Pa	July 13, 1858.
19894	Reaping and mowing machine, cutting device for.	Thomas Harding, assignor to Warder, Brokaw, & Child.	Springfield, Ohio	April 6, 1858.
20017	Reaping-machine	J. W. Brokaw, assignor to Warder, Brokaw, & Child.	Springfield, Ohio	April 20, 1858.
21207	Reaping-machine	C. W. and W. W. Marsh	Shabbona, Ill	Aug. 17, 1858.
21434	Reaping-machine, binding attachment to	James Mitchell	Osceola, Iowa	Sept. 7, 1858.
19020	Seeding-machine	Isaac H. Conklin	Rockford, Ill	Jan. 5, 1858.
19144	Seeding-machine	John Huston	Ottawa, Ill	Jan. 19, 1858.
19333	Seeding-machine	Chester Barton	Savoy, Mass	Feb. 16, 1858.
19423	Seeding-machine	G. W. Hildreth	Lockport, N. Y	Feb. 23, 1858.
19514	Seeding-machine	Aaron Ring	Westbrook, Me	Mar. 2, 1858.
19859	Seeding-machine	J. B. Lutz	Lafayette, Ind	April 6, 1858.
19839	Seeding-machine	Joseph Frey	Battle Creek, Mich	April 6, 1858.
19871	Seeding-machine	Thomas A. Risher	Circleville, Ohio	April 6, 1858.
19872	Seeding-machine	Thomas A. Risher	Circleville, Ohio	April 6, 1858.
19902	Seeding-machine	Charles F. Anderson	Charlestown, N. H	April 13, 1858.
20162	Seeding-machine	James F Kierstead	Laporte, Ind	May 4, 1858.
20301	Seeding-machine	Luther Robinson	Melrose, Mass	May 18, 1858.
20357	Seeding-machine	Joseph McCammon	Dayton, Ohio	May 25, 1858.
20358	Seeding-machine	G. M. L. McMillen	Dayton, Ohio	May 25, 1858.
20366	Seeding-machine	A. M. Pratt	Lowell, N Y	May 25, 1858.
20575	Seeding-machine	Daniel B. Neal	Mount Gilead, Ohio	June 15, 1858.
20547	Seeding-machine	Samuel Burnside	Reading, Ohio	June 15, 1858.
20643	Seeding-machine	Samuel F. Jones	St. Paul, Ind	June 22, 1858.
20656	Seeding-machine	William Morchouse	Davenport, Iowa	June 22, 1858.
21162	Seeding-machine	S. R. Weldon	Winnebago Station, Ill	Aug. 10, 1858.
21152	Seeding-machine	T. R. Richmond	Masillon, Ohio	Aug. 10, 1858.
21252	Seeding-machine	Joseph Fowler and F. M. Bacon	Ripon, Wis	Aug. 24, 1858.
21273	Seeding-machine	D. B Keiper and A. C. Fox	Texana, Texas	Aug. 24, 1858.
21257	Seeding-machine	Paul Hildreth	Beloit, Wis	Aug. 24, 1358.
21354	Seeding-machine	Lewis Moore	Ypsilanti, Mich	Aug. 31, 1858.
21389	Seeding-machine	Alexander Turner, Redden Bess, and Hervey Sloan.	Franklin, Ind	Aug. 31, 1858.
21375	Seeding-machine	J. D. Smith	Lancaster, Ohio	Aug. 31, 1858.

List of patents for inventions, 1858—CLASS I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21349	Seeding-machine	J. B. McCormick and W. R. Baker	Versailles, Ky Boston, Mass	Aug. 31, 1858.
21350	Seeding-machine	E. L. Lyon	East Randolph, N. Y	Aug. 31, 1858.
21314	Seeding-machine	Thomas J. Bottoms	Thomasville, Ga	Aug. 31, 1858.
21323	Seeding-machine	S. Conklin and G. Newton	Sterling, Ill	Aug. 31, 1858.
21452	Seeding-machine	Samuel Staubro	Salem, Mich	Sept. 7, 1858.
21595	Seeding-machine	George C. Bunsen and Cyrus Roberts	Belleville, Ill	Sept. 28, 1858.
21780	Seeding-machine	Andrew Simmons	Nora, Ill	Oct. 12, 1858.
21850	Seeding-machine	M. S. Root	Medina, Ohio	Oct. 19, 1858.
21807	Seeding-machine	A. G. Babcock	Galesburg, Ill	Oct. 19, 1858.
21995	Seeding-machine	Joseph Walton	Delavan, Wis	Nov. 2, 1558.
21969	Seeding-machine	Hermann Kaller	Perry, Ill	Nov. 2, 1858.
21958	Seeding-machine	Aaron Hatfield	Petersburg, Ill	Nov. 2, 1858.
21959	Seeding-machine	W. Y. Henry	Monmouth, Ill	Nov. 2, 1858.
22208	Seeding-machine	John W. Vandiver	Shelbyville, Mo	Nov. 30, 1858.
22184	Seeding-machine	Daniel and Austin S. Markham and David Eldred.	Monmouth, Ill	Nov. 30, 1858.
22180	Seeding-machine	R. W. Hunt and M. Kennedy	Galesburg, Ill	Nov. 30, 1858.
22171	Seeding-machine	Warren Drummond	Woodbridge, N. J	Nov. 30, 1858.
22339	Seeding-machine	John Badger	Baileyville, Ill	Dec. 21, 1858.
22374	Seeding-machine	Albert W. Morse	Eaton, N. Y	Dec. 21, 1858.
22418	Seeding-machine	Joseph Fowler and F. M. Bacon	Ripon, Wis	Dec. 28, 1858.
22190	Sheep, apparatus for holding	S. Minnich	Hopewell, Ohio	Nov. 30, 1858.
20585	Sheep while being sheared, device for holding	D. R. Reed and J. E. Chapman	Castile, N. Y	June 15, 1858.
19431	Sowing fertilizers, machine for	William H. May and Charles W. Coontz	Alexandria, Va Winchester, Va	Feb. 23, 1858.
21181	Sowing fertilizers, machine for	Lyman Bickford	Macedon, N. Y	Aug. 17, 1858.
21803	Spading-machine	Judd Stevens, assignor to himself and John L. Beadle.	Marengo, N. Y	Oct. 12, 1858.
22473	Stacking agricultural products	Carlos W. Glover, assignor to himself, Bronson Murray, and J. Van Doren.	Farm Ridge, Ill	Dec. 28, 1858.

22475	Stacking agricultural products	John Van Doren, assignor to himself, B. Murray, and C. W. Glover.	Farm Ridge, Ill	Dec. 28, 1858.
19430	Stones, machine for gathering	James H. Maydole	Eaton, N. Y	Feb. 23, 1858.
20774	Stones, machine for gathering	G. W. Bishop	Brooklyn, N. Y	July 6, 1858.
20038	Straw and stalk cutter	P. S. Clinger and C. Cremer	Conestoga, Penn	April 27, 1858.
22117	Straw-carrier	Carlos W Glover	Farm Ridge, Ill	Nov. 23, 1858.
19200	Straw-cutter	J. H. Mumma	Harrisburg, Penn	Jan. 26, 1858.
19462	Straw-cutter	Thomas H. and Daniel T. Wilson	Harrisburg, Penn	Feb. 23, 1858.
19425	Straw-cutter	W. O. Hickock	Harrisburg, Penn	Feb. 23, 1858.
19779	Straw-cutter	W. W. Hollman	Eddyville, Ky	Mar. 3, 1858.
19895	Straw-cutter	J. B. Okey, assignor to himself and W. Y. Wiley.	Indianapolis, Ind	April 6, 1858.
19952	Straw-cutter	E. P. Russell	Manlius, N. Y	April 13, 1858.
19935	Straw-cutter	John K. Landis	Lancaster, Penn	April 13, 1858.
20103	Straw-cutter	John Tittle	Johnstown, Penn	April 27, 1858.
20224	Straw-cutter	Solomon P. Smith	Crescent, N. Y	May 11, 1858.
20361	Straw-cutter	Oren Moses	Malone, N. Y	May 25, 1858.
20582	Straw-cutter	C. P. Perry	Norristown, Penn	June 15, 1858.
20958	Straw-cutter	Robert Sinclair, jr	Baltimore, Md	July 20, 1858.
21110	Straw-cutter	Darius Babcock	Dryden, N. Y	Aug. 10, 1858.
21954	Straw-cutter	Oliver C. Green	Dublin, Ind	Nov. 2, 1858.
21970	Straw-cutter	James Lashbrooks	Rockport, Ind	Nov. 2, 1858.
22072	Straw-cutter	Wilson Green and Malcom McFisher	Chattanooga, Tenn	Nov. 16, 1858.
22207	Straw-cutter	Peter Vandesande, assignor to himself and Martin Vanderwerf.	Rochester, N. Y	Nov. 30, 1858.
22336	Straw-cutter	Olive Ann Brooks, administratrix of Lebbeus Brooks, deceased	Somersworth, N. H. / Great Falls, N. H	Dec. 14, 1858.
20976	Straw-shaker	Leonard Ellig, assignor to Andrew Garret	Mill Creek, Penn	July 20, 1858.
21111	Threshing and separating grain, machine for	N. J. Becker and J. M. Harvey	Amsterdam, N. Y	Aug. 10, 1858.
19148	Threshing-machine	P. W. Mills	Conneaut, Ohio	Jan. 19, 1858.
19865	Threshing-machine	John R. Moffitt	St. Louis, Mo	April 6, 1858.
20449	Threshing-machine	H. E. Smith	Philadelphia, Penn	June 1, 1858.
21214	Threshing-machine	Samuel D. Reynolds	Lane, Ill	Aug. 17, 1858.
21963	Threshing-machine	Abram Jackson	Lebanon, Tenn	Nov. 2, 1858.
22141	Threshing-machine	M. D. Wells and H. Hagans	Morgantown, Va. / Brandonville, Va	Nov. 23, 1858.
20892	Threshing-machine, endless chain for	J. E. Owens, C. Lane, and E. G. Dyer	Hamilton, Ohio	July 13, 1858.
20474	Threshing-machines, machine for measuring, registering, and receiving grain direct from.	Peleg Barker	Moscow, Mich	June 8, 1858.

List of patents for inventions, 1858—Class I.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21628	Threshing-machines, riddles for	F. W. Robinson	Richmond, Ia	Sept. 28, 1858.
21367	Threshing-machines, straw-carriers of	F. W. Robinson	Richmond, Ia	Aug. 31, 1858.
19357	Tree-protector	Josiah Foster	Sandwich, Mass	Feb. 16, 1858.
	Trees from insects, compound for protecting. (See Class IV, letter C.)			
21057	Wheat-separator	W. H. Angel and M. Coffeen	Watertown, N. Y	Aug. 3, 1858.
19615	Winnower, grain	Henry H. Beach	Philadelphia, Penn.	Mar. 16, 1858.
19905	Winnowing-machines, chaff screens for	Alfred Belchamber	Ripley, Ohio	April 13, 1858.
21087	Yoke, ox	Joseph H. Riggs	Gloucester, Mass.	Aug. 3, 1858.
21392	Yoke, ox	George W. Weeks	Boston, Mass	Aug. 31, 1858.

Class II.—Metallurgy, *and manufacture of metals, and instruments therefor.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22245	Amalgamator	Lewis Solomon	New York, N. Y	Dec. 7, 1858.
19246	Amalgamator, gold	Joseph H. Fisher	Placerville, Cal	Feb 2, 1858.
21204	Amalgamating gold and silver	Samuel Longman	Brooklyn, N. Y	Aug. 17, 1858.
19901	Awls and tools	Herrick Aiken	Franklin, N. H	April 13, 1858.
20957	Axe-polls, machine for making	George Reynolds	Manchester, N. H	July 20, 1858.
20780	Axles, carriage, machine for upsetting	Zina Doolittle	Perry, Ga	July 6, 1858.
19940	Bar for securing bank-vaults	William Maurer	New York, N. Y	April 13, 1858.
19261	Bars, making railway	Thomas E. Purchase	Reading, Pa	Feb. 2, 1858.
20128	Bending mould-boards for ploughs	Benjamin Pitcher, assignor to himself, W. Tobey, and John Anderson.	Peoria, Ill	April 27, 1858.
21638	Blind-operator	James A. Dorman and Joseph E. Stearns, assignors to James A. Dorman.	Worcester, Mass	Sept. 28, 1858.

22172	Blind-operator	L. N. Fay and William Mason	West Warren, Mass	Nov. 30, 1858.
19751	Blinds, outside, opening and closing	John E. Clokey	Washington, D. C	Mar. 30, 1858.
19891	Bolt, door	John Woolman	Philadelphia, Pa	April 6, 1858.
19485	Bolt-machine	Henry Carter	Pittsburg, Pa	Mar. 2, 1858.
21279	Bolt-machine	Elisha Simkins	Allegheny, Pa	Aug. 24, 1858.
20149	Bolt, ring	George W. Devin	Ottumwa, Iowa	May 4, 1858.
20940	Bolt, spring	Edward Doen	New Britain, Ct	July 20, 1858.
21910	Bolts, machine for drawing	C. L. Stevenson	Charlestown, Mass	Oct. 26, 1858.
22470	Buckles, turn, for window-blinds	Joseph L. Chapman, assignor to himself and George Chapman.	Philadelphia, Pa	Dec. 28, 1858.
19988	Burnisher	Charles Frampton	Brooklyn, N. Y	April 20, 1858.
22452	Burnishing attachment for lathes	James S. Ray	East Haddam, Ct	Dec. 28, 1858.
21304	Burnishing machine	Leroy White, assignor to E. W. Sperry, E. Hurlbut, and J. H. Ashmead.	Hartford, Ct	Aug. 24, 1858.
22459	Burring-machine	O. W. Stow	Southington, Ct	Dec. 28, 1858.
21796	Cans for preserving paint	Edward Clark, assignor to W. H. Dolson	New York, N. Y	Oct. 12, 1858.
20635	Cast iron cylinders, repairing	Samuel Falkenbury	Susquehanna Depot, Pa	June 22, 1858.
20022	Casting car-wheels	Robert Poole, assignor to himself and German H. Hunt.	Baltimore, Md	April 20, 1858.
20151	Casting car-wheels	David Finley	Champlain, N. Y	May 4, 1858.
20395	Casting faucets	O. T. Wood, assignor to Thomas R. Wood	Pittsburg, Pa	May 25, 1858.
20948	Casting hinges	Conrad M. Lane	Cincinnati, Ohio	July 20, 1858.
20951	Casting iron kettles	Cornelius McGinnis	Chicago, Ill	July 20, 1858.
19258	Casting wheels, flasks for	F. Nishwitz	Brooklyn, N. Y	Feb. 2, 1858.
20955	Chain, machine for making	E. H. Perry	Providence, R. I	July 20, 1858.
21362	Chain, machine for making	E. H. Perry	Providence, R. I	Aug. 31, 1858.
19094	Chain-making machine	William J. Lewis	Pittsburg, Pa	Jan. 12, 1858.
19955	Chain shackle	Joseph Snelling	East Boston, Mass	April 13, 1858.
21088	Chucks for centreing, &c	Daniel N. Smith	Boston, Mass	Aug. 3, 1858.
19918	Cop-tube	James Eaton	Townsend Harbor, Mass	April 13, 1858.
19188	Currycomb	E. L. Evans	Providence, R. I	Jan. 26, 1858.
19937	Door-fastener	George W. McGill	Buffalo, N. Y	April 13, 1858.
22469	Door-fastener	Gilbert Yates	West Dresden, N. Y	Dec. 28, 1858.
22234	Door-latch	Henry Hackman, jr	Paque, Pa	Dec. 7, 1858.
20570	Doors, double fastening for	G. H. Lindner	Hoboken, N. J	June 15, 1858.
20381	Doors, &c., attachment for opening and closing	A. W. Webster	Waterbury, Ct	May 25, 1858.
20469	Drill for gas-pipe	William Daggett, assignor to A. B. Davis and W. H. Tolhurst.	Troy, N. Y	June 1, 1858.
20728	Drill, hand	Henry H. Packer	Boston, Mass	June 29, 1858.

List of patents for inventions, 1858—CLASS II.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22085	Drill, hand	Frederick McNair	Fultonham, Ohio	Nov. 16, 1858.
20385	Drill, power and hand	Horace Woodman	Biddeford, Me	May 25, 1858.
22323	Drilling metals, machine for	Robert Wilson	Milton, Pa	Dec. 14, 1858.
22446	Fastener, blind	John Murphy	Boston, Mass	Dec. 28, 1858.
19501	Fastener, sash	William H. Forbes	New York, N. Y	Mar. 2, 1858.
20238	Fastener, sash	F. W. Brocksieper and J. B. Sargent, assignors to Joseph B. Sargent.	New Britain, Ct	May 11, 1858.
20405	Fastener, sash	Oliver Charter	Bristol, Ct	June 1, 1858.
20526	Fastener, sash	J. B. Witherle	Upton, Mass	June 8, 1858.
20759	Fastener, sash	S. Carhart and W. Moore, assignors to themselves and J. H. McWilliams.	Brooklyn, N. Y	June 29, 1858.
21328	Fastener, sash	Ralph J. Falconer	Washington, D. C	Aug. 31, 1858.
21968	Fastener, sash	Edward M. Judd	New Britain, Conn	Nov. 2, 1858.
22105	Fastener, sash	John Bestwick, jr	Dedham, Mass	Nov. 23, 1858.
22421	Fastener, sash	Porter A. Gladwin	Pawtucket, Mass	Dec. 28, 1858.
22187	Fastener, shutter	John McGerrah	Philadelphia, Penn	Nov. 30, 1858.
19588	Fastener, window	E. S. Scripture	New Haven, Conn	Mar. 9, 1858.
21370	Fastener, window	Irving Root	Austin, Texas	Aug. 31, 1858.
19143	File	Joseph N. Houston	West Meriden, Conn	Jan. 19, 1858.
22329	File-cutting machine	George W. Fogg, assignor to himself and D. S. Fogg.	South Dedham, Mass	Dec. 14, 1858.
20286	File-machine	F. M. Mattice	Buffalo, N. Y	May 18, 1858.
19854	Files, machine for cutting	J. Nelson Jacobs	Worcester, Mass	April 6, 1858.
	Forceps for fastening clasps on hoop-skirts. (See Class XXI, letter S.)			
22034	Forging metals, drop for	E. K. Root	Hartford, Conn	Nov. 9, 1858.
19930	Gold, machine for excavating and washing	Solomon Johnson	New York, N. Y	April 13, 1858.
19337	Gold-washer	Henry Barnard	Morristown, N. Y	Feb. 16, 1858.
21820	Hammer	Josiah P. Clark	Portland, Maine	Oct. 19, 1858.
21691	Hammer and anvil, trip	David A. Morris	Pittsburg, Penn	Oct. 5, 1858.
22092	Hammer, forge	Benjamin Shiverick	Pittsburg, Penn	Nov. 16, 1858.
22073	Hammer, hand	Alfred Gregory	Washington, D. C	Nov. 16, 1858.

21823	Hammer head	Rufus Dawes	Washington, D. C	Oct. 19, 1858.
19997	Hammers, operating blacksmiths'	J. W. Kerr	Rochester, N. Y	April 20, 1858.
21981	Handles, lifting	Joseph B. Sargent	New Britain, Conn	Nov. 2, 1858.
20052	Hatchet	N. F. English	Hartland, Vt	April 27, 1858.
19374	Hinge	John C Mason	New Hartford Centre, Conn	Feb. 16, 1858.
21124	Hinge	William H. Elliott	Pittsburg, Penn	Aug. 10, 1858.
21735	Hinge	Matthias Bettinger and A. Boos	Cincinnati, Ohio	Oct. 12, 1858.
21925	Hinge	R. Hart, assignor to Theodore F. Hall	Washington county, Ohio	Oct. 26, 1858.
19076	Hinge-eye for shutters	John B. Cornell	New York, N. Y	Jan. 12, 1858.
21347	Hinge for window-blinds	John Loudon and Hans Iverson	New York, N. Y	Aug. 31, 1858.
22214	Hinge for window-blinds	Thomas E. Williams	Washington, D. C	Nov. 30, 1858.
21496	Hinge, gate	A. T. Hendrick	Clyde, N. Y	Sept. 14, 1858.
21939	Hinge, gate	C. E. Burnham	Binghamton, N. Y	Nov. 2, 1858.
	Hoes, manufacture of. (See Class I.)			
19526	Horse-shoe	Elbridge Wheeler	Marlboro', Mass	Mar. 2, 1858.
20713	Horse-shoe	W. E. Hubbard	Randolph, N. Y	June 29, 1858.
21571	Horse-shoe	John Maddock	Bloomington, Illinois	Sept. 21, 1858.
19528	Horse-shoe machine	Harry A. Wills	Keeseville, N. Y	Mar. 2, 1858.
19957	Horse-shoe machine	George Stiles, jr., and Strickland Kneass	Philadelphia, Penn	April 13, 1858.
20023	Horse-shoe machine	E. Shaw and C. Carpenter, jr assignors to themselves and G. B. Justram.	Providence, R. I Pawtucket, Mass	April 20, 1858.
20646	Horse-shoe machine	W. W. Lewis	Cincinnati, Ohio	June 22, 1858.
21779	Horse-shoe machine	T. H. Russell and Amos Morrill	Northfield, Vt Strafford, Vt	Oct. 12, 1858.
20079	Horse-shoes, machine for making	John McCarty	Philadelphia, Penn	April 27, 1858.
20441	Horse-shoes, machine for making	C. H. Perkins	Putnam, Conn	June 1, 1858.
	Iron and steel, compounds for hardening. (See Class IV, letter C.)			
19836	Iron and steel, hardening	George J. Farmer	Birmingham, England	Apl. 6, 1858. England Aug. 23, 1856.
21863	Iron, cast, manufacturing car-wheels of	George S. Bosworth, assignor to Anson Atwood.	Troy, N. Y	Oct. 19, 1858.
22476	Iron, cast, mercury bottle	Moses Wrangle, assignor to Hunter, Keller, & Co.	New York, N. Y	Dec. 28, 1858.
	Iron, cast or wrought, preserving surfaces of. (See Class IV, letter P.)			
20009	Iron cooking utensils, hollow cast	Adam V. Van Hoevenbergh	South Side, N. Y	April 20, 1858.

List of patents for inventions, 1858—CLASS II.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Iron, furnace for melting. (See Class V, letter F.)			
	Iron railroad chairs, manufacture of wrought. (See Class X, letter C.)			
	Iron railing, construction of. (See Class IX.)			
21844	Iron, rolls for planishing	James Noble	Monongahela borough, Pa	Oct. 19, 1858.
19799	Iron shafts, wrought, manufacture of tubular	W. A. Stephens and R. Jenkins	Covington, Ky	Mar. 30, 1858.
21772	Iron, sheet, manufacture of	David A. Morris	Pittsburg, Penn	Oct. 12, 1858.
21817	Iron, sheet, manufacture of	Josephus Chandler	Attica, Ohio	Oct. 19, 1858.
21692	Iron, sheet, rolls for making	David A. Morris	Pittsburg, Pa	Oct. 5, 1858.
21616	Key-hole stock	John Moulson	Philadelphia, Pa	Sept. 28, 1858.
20280	Keys, safety drop for	R. K. Lee	Brooklyn, N. Y	May 18, 1858.
19017	Knives, plated table, bolster for	Orestes Cleveland	New York, N. Y	Jan. 5, 1858.
19641	Knives while grinding, holder for planing	Lyman Jennings	Erving, Mass	Mar. 16, 1858.
19614	Latch for doors	Thomas C. Ball, assignor to A. S. Davis and H. C. Handerson.	Keene, N. H	Mar. 16, 1858.
19786	Lathe, chuck	John L. Mason	New York, N. Y	Mar. 30, 1858.
19533	Lock	John M. Perkins, assignor to Robert M. Patrick.	New York, N. Y	Mar. 2, 1858.
19564	Lock	Abraham Hoagland	Jersey City, N. J	Mar 9, 1858.
19628	Lock	William Denney	Philadelphia, Pa	Mar. 16, 1858.
19879	Lock	E. M. Shaw	Baltimore, Md	April 6, 1858.
20027	Lock	Ludwig Baier	Cincinnati, Ohio	April 27, 1858.
20476	Lock	J. A. Braden	La Grange, Ga	June 8, 1858.
20850	Lock	J. P. Lipps, assignor to George D. Baldwin.	Newark, N. J	July 6, 1858.
21193	Lock	Fayette Gould	Huntington, N. Y	Aug 17, 1858.
21293	Lock	Hjalmar Winblad	West Hoboken, N. J	Aug. 24, 1858.
21346	Lock	John P. Lord	Manchester, N. H	Aug. 31, 1858.
21543	Lock	Christian Ackerman	Newark, N. J	Sept. 21, 1858.
21636	Lock	Thomas L. Pye	New York, N. Y	Sept. 28, 1858.
21994	Lock	O. B. Thompson	Hudson, Ohio	Nov. 2, 1858.
22048	Lock	Linus Yale, jr	Philadelphia, Pa	Nov. 9, 1858.

22146	Lock	William Moore, assignor to George L. Cameron	Brooklyn, N. Y Chester C. H., S. C	Nov. 23, 1858.
22319	Lock	Charles S. Westcott	New York, N. Y	Dec. 14, 1858.
22425	Lock	Spencer Hiatt	Indianapolis, Ind	Dec. 28, 1858.
	Lock, alarm. (See Class XXII, letter A.)			
21962	Lock and key	Joseph Hoffacker	New York, N. Y	Nov. 2, 1858.
21689	Lock, bank	L. H. Miller	Providence, R. I	Oct. 5, 1858.
21862	Lock, bank	Stephen C. Burlingame, assignor to himself and William Taylor.	Warwick, R. I	Oct. 19, 1858.
21947	Lock, bank	Lyman Derby	New York, N. Y	Nov. 2, 1858.
20716	Lock, bank and other	William Johnson	Milwaukie, Wis	June 29, 1858.
19927	Lock, chronometric	Amos Holbrook	Milford, Mass	April 13, 1858.
20658	Lock, combination	Stuart Perry	Newport, N. Y	June 22, 1858.
20524	Lock, door	Livonia Whitney	Toledo, Ohio	June 8, 1858.
20571	Lock, door	John R. Marston	New York, N. Y	June 15, 1858.
21504	Lock, door	Jacob Kinzer	Pittsburg, Pa	Sept. 14, 1858.
20063	Lock for doors	James J. Hamilton	New Castle, Ind	April 27, 1858.
19208	Lock, pad	John Schneider	Chicago, Ill	Jan. 26, 1858.
22000	Lock, pad	E. M. and J. E. Mix, assignors to themselves and C. D. Johnson.	Ithaca, N. Y	Nov. 2, 1858.
19815	Lock, permutation	J. H. Morse, assignor to himself and L. Patee.	Peoria, Ill	Mar. 30, 1858.
19529	Lock, piano	Nathaniel Wilton	Boston, Mass	Mar. 2, 1858.
22057	Lock, safe	Obadiah Bayly, jr	Dearborn, Ind	Nov. 16, 1858.
22068	Lock, safe	Leger Diss	Utica, N. Y	Nov. 16, 1858.
21655	Locks, cam for throwing bolts in	Henry W. Covert	Rochester, N, Y	Oct. 5, 1858.
21567	Metal bars, machine for cutting	Daniel R. Knowles	Centre Groton, Conn	Sept. 21, 1858.
19945	Metal beams, connecting rigidly the ends of	Samuel Nowlan	New York, N. Y	April 13, 1858.
19517	Metal pans, sheet, machine for forming	E. A. Smead	Tioga, Pa	Mar. 2, 1858.
22044	Metal pipe, machine for coiling	Peter L. Weimer	Lebanon, Pa	Nov. 9, 1858.
19090	Metal plates, bending, machine for	David Howell	Louisville, Ky	Jan. 12, 1858.
19866	Metal plates, coated	Edmund Morewood and George Rogers	Enfield, Great Britain	April 6, 1858; England, July 27, 1855.
20846	Metal, punch for perforating	W. I. Granger, assignor to D. I. Lake and C. B. Brown.	Chicago, Ill	July 6, 1858.
20446	Metal shafting, lathe for turning	William Sellers	Philadelphia, Pa	June 1, 1858.
21749	Metal, sheet, machine for cross seaming	Lucien Fay	Cincinnati, Ohio	Oct. 12, 1858.
19677	Metallic cheese-hoop, casting	Timothy Brown	Georgetown, N. Y	Mar. 23, 1858.
20118	Metallic nuts, making	S. W. Wood	Washington, D. C	April 27, 1858.

List of patents for inventions, 1858—CLASS II.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Metallic surfaces, coating. (See Class IV, letter C.)			
20165	Metallic tubes, punching	Benjamin Mackerley	New Petersburg, Ohio	May 4, 1858.
20794	Metals, lathe for turning in	G. Henderson and J. Steet	Allegheny, Pa	July 6, 1858.
19498	Metals, shaping and punching	Julius C. Dickey	Saratoga Springs, N. Y	Mar. 2, 1858.
	Metals, using graphite in reducing. (See Class IV, letter G.)			
22211	Nail-heads, machine for plating	William H. Van Gieson	Newark, N. J	Nov. 30, 1858.
20126	Nail-machine	H. Green and W. J. Gordon, assignors to Henry Green.	Philadelphia, Pa	April 27, 1858.
20312	Nail-machine	John L. Krauser, assignor to John L. Krauzer and James Harper.	Reading, Pa	May 18, 1858.
20829	Nail-machine	H. W. Taylor	Birmingham, Pa	July 6, 1858.
19631	Nail-machine, cut	G. C. Grodhaus	Jamestown, Ohio	Mar. 16, 1858.
21198	Nail-plate feeder	John W. Hoard and Thomas A. Searle	Providence, R. I	Aug. 17, 1858.
21222	Nail-plate feeder	James H. Swett	Pittsburg, Pa	Aug. 17, 1858.
22238	Nail, wrought, machine	Adrian V. B. Orr and Gideon Bantz	Frederick, Md	Dec. 7, 1858.
19993	Nails, clenching horse-shoe	James Houck	Green Castle, Ind	April 20, 1858.
20141	Nails, horse-shoe, machine for making	Tisdale Carpenter	Providence, R. I	May 4, 1858.
21213	Nails, machine for forging	S. S. Putnam	Boston, Mass	Aug. 17, 1858.
21005	Nails, manufacturing	John L. Krauser	Reading, Pa	July 27, 1858.
19364	Nails, tools for clenching	Darius J. Hendrickson	Otego, N. Y	Feb. 16, 1858.
19123	Nails, trunk, machine for covering the heads of	James P. Blake	Waterbury, Conn	Jan. 19, 1858.
21812	Nails, wrought, manufacture of	Otis Breden	St. Louis, Mo	Oct. 19, 1858.
	Needles, sewing. (See Class III, letter S.)			
	Needles, sewing, manufacture of. (See Class III, letter S.)			
21599	Nut-blanks, making	R. H. Cole	St. Louis, Mo	Sept. 28, 1858.
20145	Nut-machine	R. H. Cole	St. Louis, Mo	May 4, 1858.
21551	Nut-machine	R. H. Cole	St. Louis, Mo	Sept. 21, 1858.
21860	Nut-machine	S. H. Whitaker	Cincinnati, Ohio	Oct. 19, 1858.
22310	Nut-machine	Julius B. Savage	Southington, Conn	Dec. 14, 1858.

21574	Nuts from unscrewing, mode of preventing	Samuel Noblet	Halifax, Pa	Sept. 21, 1858.
19670	Ore, machine for crushing	Nathaniel Conkling	Brooklyn, N. Y	Mar. 16, 1858.
20666	Ore-separator	H. P. Russ	Russville, Cal	June 22, 1858.
20756	Ore-separator	Hezekiah Bradford, assignor to Horatio Bogert.	New York, N. Y.	June 29, 1858.
22138	Ore-separator	L. Stadtmüller	Bristol, Conn	Nov. 23, 1858.
19338	Ore-washer	Henry Barnard	Morristown, N. Y	Feb. 16, 1858.
19556	Pin-sticking machine	Thaddeus Fowler	Waterbury, Conn	Mar. 9, 1858.
21541	Pin-sticking machine	Cornelius W. Van Vliet, assignor to the New England Pin Company.	Winsted, Conn	Sept 14, 1858.
20171	Pipe, cast-iron	Clifford Pomroy	Pottsville, Pa	May 4, 1858.
19852	Pipe, coupling	W. Hudgin	Washington, D. C	April 6, 1858.
20717	Pipe, coupling	David Kahnweiler	Wilmington, N. C	June 29, 1858.
19944	Pipe, gas, conduit joint for	Charles Monson	New Haven, Conn	April 13, 1858.
19313	Pipe, lead, machine	Charles E. Rockwell	New York, N. Y	Feb. 9, 1858.
20387	Pipe, machine for cutting	M. Bowes, assignor to himself and George B. Waterhouse.	Charlotte, N. C	May 25, 1858.
20407	Pipe-tongs	A. G Coes	Worcester, Mass	June 1, 1858.
22157	Pipe-tongs	James R. Brown	Boston, Mass	Nov. 30, 1858.
21525	Pliers, making	Chester W. Sykes	New York, N. Y	Sept. 14, 1858.
20460	Pliers, manufacture of	Henry Wilkinson	Collinsville, Conn	June 1, 1858.
19843	Puddling-furnace	John P. and John Grove	Montour county, Pa	April 6, 1858.
20743	Punch, brad	John Thorndike	North Weare, N. H	June 29, 1858.
20516	Punching-machine	David S. Sherman	Lowell, Mass	June 8, 1858.
20157	Quartz-crusher	William H. Howland	Sacramento, Cal	May 4, 1858.
21248	Quartz-crusher	A. J. Doolittle	Nevada township, Cal	Aug. 24, 1858.
	Quartz-mills. (See Class XIII, letter M.)			
	Quartz, &c., feeding to machines for crushing and grinding the same. (See Class XIII, letter C)			
20685	Riveting-machine	P. B. Tyler and W. Jones, and B. Lathrop, assignors to P. B. Tyler	Springfield, Mass. Sandusky, Ohio	June 22, 1858.
19963	Rolling-mill	John A. Bailey, assignor to James Horner and James Ludlum.	Boston, Mass	April 13, 1858.
20702	Rolling railway bars	Giles Edwards	Johnstown, Pa	June 29, 1858.
20901	Rolling railway chairs	J. H. Snyder	Troy, N. Y.	July 13, 1858.
21666	Rolling railway iron	John Fritz	Johnstown, Pa	Oct. 5, 1858.
20736	Safe, fire and burglar proof	Theodore Sharts	Albany, N. Y	June 29, 1858.
21427	Safe, iron	Lewis Lillie	Troy, N. Y	Sept. 7, 1858.

List of patents for inventions, 1858—CLASS II.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Safe, plates for burglar-proof. (See Class V, letter S.)			
20544	Sash-holder	S. R. Brown	East Kingston, N. H.	June 15, 1858.
20822	Sash-holder	E. S. Scripture	New Haven, Conn	July 6, 1858.
21483	Saw-filer	A. H. Burdine	Chulahoma, Miss	Sept. 14, 1858.
20945	Saw-filing machine	Heman How	Georgetown, Mass	July 20, 1858.
19265	Saw-gummer	N. F. Stone & W. C. Ward	Menard county, Ill.	Feb. 2, 1858.
19835	Saw-gummer	M. Ernsberger	Bremen, Ohio	April 6, 1858.
21729	Saw-gummer	H. R. Wolf, assignor to himself, David Staples, & W. H. Watson.	Consolation, Ky	Oct. 5, 1858.
21935	Saw-gummer	Nelson Barlow	New York, N. Y	Nov. 2, 1858.
22260	Saw-set	J. P. Van Vleck	Cooksville, Wis	Dec. 7, 1858.
22256	Saw-set	Edward Marshall	New York, N. Y	Dec. 7, 1858.
	Saws, dressing. (See Class XIV.)			
20933	Saws, gin, machine for sharpening	A. H. Burdine	Chulahoma, Miss	July 20, 1858.
19244	Saws, gumming and jointing	Hosea O. Elmer	Mexico, N. Y	Feb. 2, 1858.
22040	Saws, machine for filing	Calvin & Byron D. Tabor	Ischua, N. Y	Nov. 9, 1858.
20330	Saws, machine for grinding	William Clemson	East Woburn, Mass	May 25, 1858.
22367	Scissors, manufacture of	Henry Havell	Newark, N. J	Dec. 21, 1858.
21531	Screw-cutter	Thomas Whitaker	Cincinnati, Ohio	Sept. 14, 1858.
0168	Screw-cutting, chuck for	Richard Nuttall & John Kirkpatrick	Allegheny, Pa	May 4, 1858.
19752	Screw-cutting machine	R. H. Cole	St. Louis, Mo	Mar. 30, 1858.
20619	Screwdriver, handle for	Oliver Bond	Buffalo, N. Y	June 22, 1858.
19162	Screwdriver, ratchet movement for	G. H. Talbot	Boston, Mass	Jan. 19, 1858.
19805	Screw, wood	J. M. Whiting and G. F. Wilson	New Bedford, Mass. Providence, R. I.	Mar. 30, 1858.
21864	Screws from wire, lathe for cutting	G. W. Daniels, assignor to himself and A. Fuller.	Waltham Mass	Oct. 19, 1858.
20036	Screws, machine for cutting	Philip Chapin	Baltimore, Md	April 27, 1858.
20789	Screws, machine for turning the heads and for nicking.	Ira Griggs, assignor to the Utica Screw Manufacturing Company.	Utica, N. Y	July 6, 1858.

21641	Screws, wood, cutting threads of	Henry L. Kendall & Homer P. Hunt, assignors to the New England Screw Co.	Providence, R. I	Sept. 28, 1858.
21438	Scythe-blade	S. D. Nelson	Pittsburg, Pa	Sept. 7, 1858.
19524	Scythes, manufacture of	Harvey Waters	Northbridge, Mass	Mar. 2, 1858.
19152	Seaming-machine, double	Luther E. Porter	Lake Mills, Wis	Jan. 19, 1858.
21546	Shears	Joseph A. Braden	La Grange, Ga	Sept. 21, 1858. Reissued Dec. 28, 1858.
22028	Shears for cutting sheet metal	Daniel Newton	Southington, Conn	Nov. 9, 1858.
21319	Shears, manufacturing	W. S. Butler	Rocky Hill, Conn	Aug. 31, 1858.
	Shovel-handles, bending. (See Class XIV, letter B.)			
21368	Shutter-operator	Isaac Rogers	Owego, N. Y	Aug. 31, 1858.
20975	Soldering-iron	H. I. Behrens, assignor to C. S. Pomeroy	New York, N. Y	July 20, 1858.
21972	Soldering, machine for	E. Manley	Marion, N. Y	Nov. 2, 1858.
19452	Spike-machine	Leander Shearer	Duncannon, Pa	Feb. 23. 1858.
20076	Spike-machine	Michael Loughran	Pittsburg, Pa	April 27, 1858.
22060	Spoons, machine for making	John P. Brinkerhoff	Brooklyn, N. Y	Nov. 16, 1858.
22441	Spring, door	Thomas J. Mayall	Roxbury, Mass	Dec. 28, 1858.
20338	Spring, window	Edward Doen	New Britain, Conn	May 25, 1858.
19747	Staple for blind slats	Byron Boardman	Norwich, Conn	Mar. 30, 1858.
19804	Steel and iron, tempering and hardening	Horace Vaughn	Providence, R. I	Mar. 30, 1858. England, Dec. 29, 1856.
	Steel car-springs, tempering. (See Class X, letter C.)			
	Steel, furnace for tempering. (See Class V, letter F.)			
21948	Steel, manufacturing	Joseph Dixon	Jersey City, N. J	Nov. 2, 1858.
21039	Steel rollers, making	Henry Waterman	Brooklyn, N. Y	July 27, 1858.
19038	Tin, machine for bending	George W. Merk	Leavenworth, Kan	Jan. 5, 1858.
	Tire, apparatus for heating. (See Class V, letter H.)			
20700	Tire, upsetting	G. W. Cooper	Morenci, Mich	June 29, 1858.
21327	Tire, upsetting carriage	E. J. Dodge	Port Washington, Wis	Aug. 31, 1858.
20559	Tire, wheel, reducing	Iris Hobson	Stout's Grove, Ill	June 15, 1858.
19842	Tongs, pipe	Henry H. Gilmore	Boston, Mass	April 6, 1858.
19416	Tool, expanding	James Greenhalgh, jr	Burville, R. I	Feb. 23, 1858.
22155	Tool for cutting key-seats in wheels and pulleys	James Barton	Cleveland, Ohio	Nov. 30, 1858.
22466	Tools, making edge	William White	Newark, N. J	Dec. 28, 1858.

List of patents for inventions, 1858—CLASS II.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19606	Tools to handles, attaching	J. Henn, assignor to himself, Anton Daul, & Leopold Lankan.	New Britain, Conn	Mar. 9, 1858.
19150	Tube-joint, gas	Charles Monson	New Haven, Conn	Jan. 19, 1858. Reissued Mar. 9, 1858.
20529	Tubing, soldered, machine for finishing	E. Jordan, assignor to Benedict & Burnham Manufacturing Company.	Waterbury, Conn	June 8, 1858.
20051	Tuyere	George W. Finch	Gibraltar, Wis	April 27, 1858.
22012	Tuyere, blacksmith's	Harvey S. Berry	Rutland, Vt	Nov. 9, 1858.
22111	Tuyere, blacksmith's	Benjamin E. Dixon	Marshall, Mich	Nov. 23, 1858.
19622	Vice	Charles B. Clark	Oriskany Falls, N. Y	Mar. 16, 1858.
19861	Vice-anvil for repairing T rails	S. Mason & E. M. Davis	Michigan City, Ind	April 6, 1858.
24961	Vice, gas-fitter's	Joseph S. Ford	Philadelphia, Pa	Nov. 2, 1858.
20043	Washers, machine for making	R. H. Cole	St. Louis, Mo	April 27, 1858.
21359	Welding bellows-pipe	A. Pearsall	Nashville, Tenn	Aug. 31, 1858.
21286	Wire and steel, tempering	Henry Waterman	Brooklyn, N. Y	Aug. 24, 1858.
21866	Wire-riddles, tools for manufacturing	Sanford Adams	Boston, Mass	Oct. 26, 1858.
21635	Wire-springs for furniture, machine for making.	Charles A. & Solomon W. Young	Providence, R. I	Sept. 28, 1858.
19790	Wrench	Archibald Murray	Troy, N. Y	Mar. 30, 1858.
19954	Wrench	E. S. Scripture	New Haven, Conn	April 13, 1858.
20211	Wrench	James McKenzie	Green Island, N. Y	May 11, 1858.
20379	Wrench	George C. Taft	Worcester, Mass	May 25, 1858.
21196	Wrench	F. D. Haywood	Malden, Mass	Aug. 17. 1858.
22122	Wrench, screw	Joseph Hyde	Troy, N. Y	Nov. 23, 1858.
20291	Zinc, metallic, manufacture of	Alfred Monnier	Camden, N. J	May 18, 1858.

CLASS III—MANUFACTURES OF FIBROUS AND TEXTILE SUBSTANCES, *including machines for preparing fibres of wool, cotton, silk, fur, paper, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19647	Bobbins, spinning	Alfred E. Nichols	Lowell, Mass	Mar. 16, 1858.
19231	Bonnet frames, machine for forming	Sewall H. Bowker	Worcester, Mass	Feb. 2, 1858.
20837	Bonnets and other articles of varying thickness, machinery for pressing straw.	H. E. West	Norton, Mass	July 6, 1858.
22100	Braiding-machine	Andrew B. Clemons, assignor to Birmingham Iron Foundry Company.	Derby, Conn	Nov. 16, 1858.
21568	Brush-cylinders for spreaders, cotton-gins, &c	A. M. Laupher	Gloucester, N. J	Sept. 21, 1858.
21685	Card, clothing	Richard Kitson	Lowell, Mass	Oct. 5, 1858.
19585	Carding-cylinders, clothing for	Charles G. Sargent and Francis A. Calvert	Lowell, Mass	Mar. 9, 1858.
21364	Carding-machine	C. E. Price and J. Haythorne	Thompsonville, Conn	Aug. 31, 1858.
20037	Cloth, elastic, device for turning down the edges of.	Gilbert H. Chesbro	Stafford, Conn	April 27, 1858.
21930	Cloth, felt, forming bats for	Milton D. Whipple, assignor to Alfred B. Ely	Charlestown, Mass	Oct. 26, 1858.
19235	Cloth, felt, mode of forming the bat for making	Thomas B. Butler	Norwalk, Conn	Feb. 2, 1858.
21931	Cloth, fulling, in the piece, machinery for	Milton D. Whipple, assignor to Alfred B. Ely	Charlestown, Mass	Oct. 26, 1858.
20695	Cloth, machine for turning selvages in	John T. Boyd.	Charlestown, Mass	June 29, 1858.
20677	Cop-waste, machine for picking	A. A. Wood	Jersey City, N. J	June 22, 1858.
19554	Cord, plaited, machinery for manufacturing	Charles Feickert	New York, N. Y	Mar. 9, 1858.
20690	Cordage, braiding, machinery for	J. A. Bazin	Canton, Mass	June 29, 1858.
20691	Cordage, webbing, &c., manufacturing braided	J. A. Bazin	Canton, Mass	June 29, 1858.
19394	Cotton, &c., drawing	Cullen Whipple	Providence, R. I	Feb. 16, 1858.
21932	Cotton, combing, machinery for	Milton D. Whipple, assignor to Alfred B. Ely	Charlestown, Mass	Oct. 26, 1858.
20270	Cotton, machine for cleaning	Thomas Oliver	Yazoo City, Miss	May 18, 1858.
21270	Fabrics, elastic	John W. Newell	New Brunswick, N. J	Aug. 24, 1858.
20267	Fabrics, thick woven	John Gujer	Philadelphia, Penn	May 18, 1858.
20263	Fabrics, woven, tucked	Thomas France	New York, N. Y	May 18, 1858.
21164	Felting, machinery for forming bats for	Thomas B. Butler, assignor to Lounsberry, Bissell, & Co.	Norwalk, Conn.	Aug. 10, 1858.
21771	Fibre from the pulp in hemp leaves, machines for separating the.	S. S. Mills	Charleston, S. C	Oct. 12, 1858.
21077	Fibre of wood, separating the	A. S. Lyman	New York, N. Y	Aug. 3, 1858.

List of patents for inventions, 1858—CLASS III.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19600	Fibrous materials, machines for picking	Oliver Woodworth, jr., and John D. Page	East Hartford, Conn	Mar. 9, 1858.
21659	Folding guides	Alexander Douglas	New York, N. Y	Oct. 5, 1858.
19041	Gin, cotton	James F. Orr	Orrville, Ala	Jan. 5, 1858.
19097	Gin, cotton	David G. Olmstead	Vicksburg, Miss	Jan. 12, 1858.
19324	Gin, cotton	Lewis J. Chichester, assignor to Henry G. Evans, Samuel Barstow, and Daniel Wintringham.	New York, N. Y	Feb. 9, 1858.
19415	Gin, cotton	T. C. Garlington	La Fayette, Ala	Feb. 23, 1858.
19417	Gin, cotton	B. D. Gullett	Aberdeen, Miss	Feb. 23, 1858.
19598	Gin, cotton	F. L. Wilkinson	Adam's Run, S. C	Mar. 9, 1858.
19679	Gin, cotton	Hiram W. Brown	Millville, N. J	Mar. 23, 1858.
20120	Gin, cotton	James N. Wilson and George W. Payne	Memphis, Tenn	April 27, 1858.
20051	Gin, cotton	John Du Bois	Greensboro', Ala	April 27, 1858.
20086	Gin, cotton	S. R. Parkhurst	New York, N. Y	April 27, 1858.
20216	Gin, cotton	Enoch Osgood	Boston, Mass	May 11, 1858.
20747	Gin, cotton	J. A. Ventress	Woodville, Miss	June 29, 1858.
20904	Gin, cotton	Joshua Tetlow	Taunton, Mass	July 13, 1858.
21357	Gin, cotton	H. C. Parkhurst	New York, N. Y	Aug. 31, 1858.
21582	Gin, cotton	John L. Tuttle	Bridesburg, Pa	Sept. 21, 1858.
21714	Gin, cotton	A. Q. Withers	Byhalia, Miss	Oct. 5, 1858.
21795	Gin, cotton	Lewis S. Chichester, assignor to Henry G. Evans.	New York, N. Y	Oct. 12, 1858.
22288	Hat-bodies, machinery for forming	Michael Hardy	New York, N. Y	Dec. 14, 1858.
20602	Hat-bodies, machine for sizing	S. W. Wood	Washington, D. C	June 15, 1858.
21382	Hat-body machinery	Alva B. Taylor	Newark, N. J	Aug. 31, 1858.
19138	Hats, felt, machinery for forming brims of	William A. Fenn	Brookfield, Conn	Jan. 19, 1858.
19616	Hats, ventilating	James W. Beebe	New York, N. Y	Mar. 16, 1858.
19255	Hem pbrake	Solomon P. Moore	Arrow Rock, Mo	Feb. 2, 1858.
20890	Hem pbrake	George M. Newell	Lexington, Mo	July 13, 1858.
21513	Hem pbrake	H. D. McGeorge	Morgantown, Va	Sept. 14, 1858.
21680	Hem pbrake	William C. Hutchinson	St. Joseph's, Mo	Oct. 5, 1858.
21983	Hem pbrake	William Shelby	Waverley, Mo	Nov. 2, 1858.

22399	Hemp, rake	Robert Heneage, assignor to himself and Edward O. Ball.	Buffalo, N. Y	Dec. 21, 1858.
21264	Hemp, machine for breaking	Samuel H. Little	St. Louis, Mo	Aug. 24, 1858.
20827	Hemp, Tampico, treatment of fibre of	Werner Staufen	London, England	July 6, 1858.
19625	Hose, textile, manufacture of	L. B. Cooley and James C. Cooke	Middletown, Conn	Mar. 16, 1858; reissued Aug. 31, 1858.
20893	Knit gloves, manufacturing	James Peatfield	Ipswich, Mass	July 13, 1858.
19370	Knitting-machine	Joseph K. and Edward E. Kilbourn	Norfolk, Conn	Feb. 16, 1858.
19740	Knitting-machine	Joseph Vickerstaff, assignor to Martin Landenberger.	Philadelphia, Pa	Mar. 23, 1858.
20854	Knitting-machine	N. P. Aiken	Troy, N. Y	July 13, 1858.
21045	Knitting-machine	J. P. Delahunty, assignor to himself and E. S. Ells, and E. S. Ells, assignor to Clark Tompkins.	Cohoes, N. Y	July 27, 1858.
21396	Knitting-machine	T. Lovelidge, assignor to himself and William Fulfirth.	Germantown, Pa	Aug. 31, 1858.
21762	Knitting-machine	Joseph K., and Edward E. Kilbourn	Norfolk, Conn	Oct. 12, 1858.
22004	Knitting-machine	Walter Aiken	Franklin, N. H	Nov. 9, 1858.
22135	Knitting-machine	Frederick Schott	Brooklyn, N. Y	Nov. 23, 1858.
21566	Knitting-machines, needles for	Joseph K. Kilbourn and Edward E. Kilbourn	Pittsfield, Mass Norfolk, Conn	Sept. 21, 1858.
20044	Loom	George Crompton	Worcester, Mass	April 27, 1858.
20969	Loom	Joseph Welsh	Philadelphia, Pa	July 20, 1858.
21098	Loom	Joseph Welsh	Philadelphia, Pa	Aug. 3, 1858.
21448	Loom	E. M. Scott	Auburn, N. Y	Sept. 7, 1858.
21793	Loom for weaving hair-cloth	S. B. Chaffee, for himself and as administrator of S. M. Chaffee, deceased.	Providence, R. I	Oct. 12, 1858.
21312	Loom for weaving skirt-fringe	James Beck	New York, N. Y	Aug. 31, 1858.
22042	Loom, fringe	Samuel Walker	Roxbury, Mass	Nov. 9, 1858.
19719	Loom, hair-cloth, stop-motion for	R. J. Stafford	Smithfield, R. I	Mar. 23, 1858.
19428	Loom, picker for	Zebulon Lyford	Lowell, Mass	Feb. 23, 1858.
22114	Loom, picker-staff for	Samuel Estes	Newburyport, Mass	Nov. 23, 1858.
22065	Loom, power	John Crawshaw	Rochester, N. Y	Nov. 16, 1858.
19073	Loom, power, set-off motion for	Stephen O. Colvin	Coventry, R. I	Jan. 12, 1858.
19664	Loom, power, set-off motion for	Newell Wyllys, assignor to himself and Charles Collins.	South Glastonbury, Conn	Mar. 16, 1858.
19698	Loom, ribbon	William J. Hartmann	Philadelphia, Pa	Mar. 23, 1858.
22420	Looms, shuttle-boxes for	A. F. Gibboney	Union Township, Pa	Dec. 28, 1858.
21515	Looms, temples for	Robert Pilson	Laurel, Md	Sept. 14, 1858.

List of patents for inventions, 1858.—CLASS III.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Paper and other fabrics incorrodible, rendering. (See Class IV, letter P.)			
19270	Paper boxes, manufacturing angular	Elisha Waters	Troy, N. Y	Feb. 2, 1858.
19045	Paper, machinery for manufacturing	Stephen Rossman	Stuyvesant, N. Y.	Jan. 5, 1858.
21004	Paper, machinery for piling	J. C. Kneeland	Northampton, Mass.	July 27, 1858.
21768	Paper making cylinders, constructing frames for wire-cloth.	John and Robert McMurray	New York, N. Y	Oct. 12, 1858.
21008	Paper-making machine	T. Lindsay and W. Geddes	Westfield, Conn Seymour, Conn	July 27, 1858.
20355	Paper-pulp from reeds, preparing	Henry Lowe	Baltimore, Md	May 25, 1858.
22401	Paper-pulp from wood, manufacture of	Charles Marzoni, assignor to J. Gandolfo	New York, N. Y	Dec. 21, 1858.
20277	Paper-pulp, machine for grinding and sizing.	Joseph Jordan, jr., and Thomas Eustice	East Hartford, Conn Hartford, Conn	May 18, 1858.
20294	Paper-pulp, preparation of fibre for	Martin Nixon	Philadelphia, Penn.	May 18, 1858.
1161	Paper-pulp, reducing wood fibre to.	Henry Voelter	Heidenheim, Wurtemberg, Germany. Foreign patent	Aug. 10, 1858. Aug. 29, 1856.
20884	Paper-stock, from reeds	Henry Lowe	Baltimore, Md.	July 13, 1858.
20020	Pasteboard and paper, manufacture of leather	Adolphe Nicolas Mathieu, assignor to M. J. A. Guiet	Paris, France France	April 20, 1858. April 13, 1855.
20766	Rollers, drawing	Seth P. Spencer, assignor to himself, S. S. Spencer, and Harris Boardman.	Lancaster, Penn	June 29, 1858.
19623	Rolls, calendar	Gardner G. Clark	Providence, R. I.	Mar. 16, 1858.
21238	Rope, machinery for making	Newton Adams	Lansingburg, N. Y.	Aug. 24, 1858.
19133	Rope-machine	William Coutie	Troy, N. Y	Jan. 19, 1858.
22150	Rope-yarn, machine for tarring	JohnStewart, assignor to Charles Wall	Brooklyn, N. Y	Nov. 23, 1858.
19015	Sewing-machine	D. W. Clark	Bridgeport, Conn.	Jan. 5, 1858.
19059	Sewing-machine	George Felter, assignor to himself and Edward Jones.	Philadelphia, Penn	Jan. 5, 1858.
19080	Sewing-machine	Alexander Douglas	New York, N. Y.	Jan. 12, 1858.
19072	Sewing-machine	D. W. Clark	Bridgeport, Conn	Jan. 12, 1858.
19129	Sewing-machine	D. W. Clark	Bridgeport, Conn	Jan. 19, 1858.

19171	Sewing-machine	Amos H. Boyd, assignor to Oliver D. Boyd	Saco, Maine	Jan. 19, 1858.
19141	Sewing-machine	Daniel Harris	Boston, Mass	Jan. 19, 1858.
19155	Sewing-machine	James and Amos W. Sangster	Buffalo, N. Y	Jan. 19, 1858.
19135	Sewing-machine	Martial Dimock and Nathan Rixford	Mansfield Centre, Conn	Jan. 19, 1858.
19285	Sewing-machine	Benjamin J. Angell	Attleborough, Mass	Feb. 9, 1858.
19409	Sewing-machine	D. W. Clark	Bridgeport, Conn	Feb. 23, 1858.
19439	Sewing-machine	Abner N. Newton	Richmond, Ind	Feb. 23, 1858.
19535	Sewing-machine	Amos W. Sangster, assignor to V. M. Rice, James Sangster, and Eliza Remington.	Buffalo, N. Y	Mar. 2, 1858.
19532	Sewing-machine	Joshua Gray, assignor to himself and George O. Brastow	Medford, Mass Somerville, Mass	Mar. 2, 1858.
19612	Sewing-machine	Charles Raymond, assignor to Willford H. Nettleton.	Bristol, Conn	Mar. 9, 1858.
19660	Sewing-machine	Joseph E. Hendrick, assignor to himself and William Holmes.	Brooklyn, N. Y	Mar. 16, 1858.
19662	Sewing-machine	Sidney Parker, assignor to himself, Leonard Westbrook, and Hugh Herringshaw.	New York, N. Y.	Mar. 16, 1858.
19665	Sewing-machine	Joshua Gray, assignor to himself and T. B. Mackay.	Boston, Mass	Mar. 16, 1858.
19684	Sewing-machine	Fayette S. Coates	New York, N. Y.	Mar. 23, 1858.
19732	Sewing-machine	D. W. Clark, assignor to H. L. Clark	Bridgeport, Conn	Mar. 23, 1858.
19723	Sewing-machine	James and Amos W. Sangster	Buffalo, N. Y	Mar. 23, 1858.
19793	Sewing-machine	O. L. Reynolds	Dover, N. H.	Mar. 30, 1858.
19823	Sewing-machine	Abraham Bartholf	New York, N. Y.	April 6, 1858.
19876	Sewing-machine	Elliot Savage	Berlin, Conn	April 6, 1858.
19903	Sewing-machine	J. E. and J. C. and O. Atwood	Mansfield Centre, Conn.	April 13, 1858.
19979	Sewing-machine	Charles F. Bosworth	Petersham, Mass	April 20, 1858.
20175	Sewing-machine	E. Harry Smith	New York, N. Y.	May 4, 1858.
20471	Sewing-machine	C. A. Shaw, J. Clark, and D. T. Giveen, assignors to said Shaw & Clark.	Biddeford, Me Saco, Me	June 1, 1858.
20413	Sewing-machine	Martial Dimock	Mansfield, Conn	June 1, 1858.
20481	Sewing-machine	D. W. Clark	Bridgeport, Conn	June 8, 1858.
20531	Sewing-machine	A. W. Sangster, assignor to V. M. Rice, J. Thayer, J. Sangster, and Eliza Remington.	Buffalo, N. Y	June 8, 1858.
20557	Sewing-machine	A. C. Herron	Remsen, N. Y	June 15, 1858.
20686	Sewing-machine	Albert F. Johnson, assignor to himself and Francis F. Emery.	Boston, Mass	June 22, 1858.
20684	Sewing-machine	Heman S. Snow, assignor to himself and G. F. Snow.	Meriden, Conn	June 22, 1858.

List of patents for inventions, 1858.—CLASS III.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20688	Sewing-machine	W. T. Barnes	Buffalo, N. Y	June 29, 1858.
20763	Sewing-machine	W. Miller, assignor to himself and W. P. Prescott.	Cambridge, N. Y	June 29, 1858.
20761	Sewing-machine	Thomas A. Dugdale, assignor to himself and John A. Burbank.	Richmond, Ia	June 29, 1858.
20699	Sewing-machine	Samuel Comfert, jr	Morrisville, Pa	June 29, 1858.
20753	Sewing-machine	H. B. West and H. F. Willson	Elyria, Ohio	June 29, 1858.
20739	Sewing-machine	E. Harry Smith	New York, N. Y	June 29, 1858.
20742	Sewing-machine	John Thomson	Worcester, Mass	June 29, 1858.
20773	Sewing-machine	R. M. Berry	New York, N. Y	July 6, 1858.
20775	Sewing-machine	L. R. Blake	South Abington, Mass	July 6, 1858.
21015	Sewing-machine	Charles Moore	Buffalo, N. Y	July 27, 1858.
21049	Sewing-machine	A. H. Hook, assignor to Union Sewing Machine Company.	New York, N. Y	July 27, 1858.
20994	Sewing-machine	Cornelius Donovan	Abington, Mass	July 27, 1858.
20990	Sewing-machine	Luman Carpenter	Oswego, N. Y	July 27, 1858.
21089	Sewing-machine	E. Harry Smith	New York, N. Y	Aug. 3, 1858.
21100	Sewing-machine	Darius Wheeler and Luman Carpenter	Oswego, N. Y	Aug. 3, 1858.
21129	Sewing-machine	J. E. A. Gibbs	Mill Point, Va	Aug. 10, 1858.
21230	Sewing-machine	J. S. Buell and W. T. Barnes, assignors to J. Forsyth, R. D. Rockwell, V. M. Rice, and W. T. Barnes.	Buffalo, N. Y	Aug. 17, 1858.
21224	Sewing-machine	P. P. Uhlinger	Philadelphia, Pa	Aug. 17, 1858; antedated May 3, 1858
21234	Sewing-machine	Timothy D. Jackson, assignor to Joseph W. Bartlett.	New York, N. Y	Aug. 17, 1858.
21250	Sewing-machine	R. B. Fitts and Milton D. Whipple	Charlestown, Mass	Aug. 24, 1858.
21299	Sewing-machine	Timothy D. Jackson, assignor to Joseph W. Bartlett.	New York, N. Y	Aug. 24, 1858.
21258	Sewing-machine	Elias Howe, jr	Brooklyn, N. Y	Aug. 24, 1858.
21322	Sewing-machine	D. W. Clark	Bridgeport, Conn	Aug. 31, 1858.
21310	Sewing-machine	Solomon Andrews	Perth Amboy, N. J	Aug. 31, 1858.

21465	Sewing-machine	S. C. Blodgett, assignor to G. B. Sloat & Co.	Philadelphia, Pa	Sept. 7, 1858.
21402	Sewing-machine	Bryan Atwater	Berlin, Conn.	Sept. 7, 1858.
21461	Sewing-machine	J. B. Woodruff	Washington, D. C	Sept. 7, 1858.
21466	Sewing-machine	Miles L. Clinton, assignor to H. F. Hibbard.	Ithaca, N. Y	Sept. 7, 1858.
21537	Sewing-machine	G. W. Hubbard, assignor to himself, W. Hubbard, and W. L. and N. S. Bradley.	Meriden, Conn.	Sept. 14, 1858.
21592	Sewing-machine	Jonas Hinkley, assignor to himself and F. A. Wildman.	Huron, Ohio.	Sept. 21, 1858.
21722	Sewing-machine	Joseph E Hendrick, assignor to himself, W. H. Nettleton, and George Stevens.	Bristol, Conn	Oct. 5, 1858.
21713	Sewing-machine	Joseph White	Troy, N. Y	Oct. 5, 1858.
21672	Sewing-machine	Daniel Harris	Boston, Mass.	Oct. 5, 1858.
21669	Sewing-machine. (No. 4)	William O. Grover	Boston, Mass	Oct. 5, 1858.
21670	Sewing-machine. (No. 1)	William O. Grover	Boston, Mass	Oct. 5, 1858.
21671	Sewing-machine. (No. 5)	William O. Grover	Boston, Mass	Oct. 5, 1858.
21751	Sewing-machine	James E. A. Gibbs	Mill Point, Va	Oct. 12, 1858.
21800	Sewing-machine	W. Millar, assignor to himself and John Nutt.	Chicago, Ill	Oct. 12, 1858.
21752	Sewing-machine. (No. 3)	William O. Grover	Boston, Mass	Oct. 12, 1858.
21745	Sewing-machine	Chauncey O. Crosby	New Haven, Conn	Oct. 12, 1858.
21833	Sewing-machine	George W. Hubbard	West Meriden, Conn	Oct. 19, 1858.
21929	Sewing-machine	A. W. Sangster, assignor to V. M. Rice, J. Thayer, J. Sangster, and E. Remington.	Buffalo, N. Y	Oct. 26, 1858.
22050	Sewing-machine	Samuel Comfort, jr., assignor to himself and Francis H. Jackson.	Morrisville, Pa	Nov. 9, 1858.
22007	Sewing-machine	O. and Z. W. Avery	Bethany, Pa	Nov. 9, 1858.
22045	Sewing-machine	Calvin D. Wheeler	New York, N. Y	Nov. 9, 1858.
22148	Sewing-machine	James Perry, assignor to J. C. Noe	New York, N. Y	Nov. 23, 1858.
22137	Sewing-machine	James H. Spencer and Thomas Lamb	Philadelphia, Pa	Nov. 23, 1858.
22143	Sewing-machine	Hiram W. Harkness, assignor to himself and Willford H. Nettleton.	Bristol, Conn	Nov. 23, 1858.
22179	Sewing-machine	Albert H. Hook	New York, N. Y	Nov. 30, 1858.
22160	Sewing-machine	Serrington S. Burnet and William Broderick, assignors to themselves and Robert H. Morford.	Chicago, Ill	Nov. 30, 1858.
22220	Sewing-machine	Charles Raymond, assignor to W. H. Nettleton	Brattleboro', Vt Bristol, Conn	Nov. 30, 1858.
22269	Sewing-machine	S. G. Tyler, assignor to himself, G. J. Laage, and J. W. Barnum.	Quincy, Ill	Dec. 7, 1858.

List of patents for inventions, 1858—CLASS III.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22225	Sewing-machine	Robert M. Berry	New York, N. Y	Dec. 7, 1858.
22240	Sewing-machine	Samuel F. Pratt	Roxbury, Mass	Dec. 7, 1858.
22264	Sewing-machine	John First, assignor to himself and James Frost.	New York, N. Y	Dec. 7, 1858.
22255	Sewing-machine	John Mackenzie	Cleveland, O	Dec. 7, 1858.
22226	Sewing-machine	Robert H. Bishop	Bristol, Conn	Dec. 7, 1858.
22273	Sewing-machine	J. E. Atwood	Mansfield Centre, Conn	Dec. 14, 1858.
22275	Sewing-machine	Amos H. Boyd	Saco, Me	Dec. 14, 1858.
20664	Sewing-machine, cabinet for	F. A. Ross and W. H. Marshall	New York, N. Y	June 22, 1858.
20245	Sewing-machines, guides for	L. W. Serrell, assignor to John Harold	Brooklyn, N. Y	May 11, 1858.
21355	Sewing machines, hemming guides for	Henry B. Odiorne	Philadelphia, Pa	Aug. 31, 1858.
21361	Sewing-machines, oiling the thread for	T. W. Pepper	New York, N. Y	Aug. 31, 1858.
20006	Sewing-machines, operating	Phineas J. Steer	Washington, D. C	April 20, 1858.
21398	Sewing-machines, regulating the tension of the thread in.	John T. B. Rogers, assignor to George B. Sloat.	New York, N. Y	Aug. 31, 1858.
20409	Sewing-needles	James Cottrill	Studley, England	June 1, 1858; England, Dec. 28, 1857.
22140	Sewing-needles, manufacture of	Henry Walker	London, England	Nov. 23, 1858; England, May 19, 1858.
19283	Sewing-silk, manufacturing	H. Relsea, assignor to himself and Henry Dunklee, assignors to D. B. and J. C. Fuller	Antrim, N. H New York, N. Y	Feb. 2, 1858.
	Shirred goods, machinery for manufacturing. (See Class IV, letter S.)			
21068	Shuttles, cop tubes for	James Eaton	Townsend Harbor, Mass	Aug. 3, 1858.
22221	Shuttles, weavers', manufacture of	N. J. Willis, assignor to S. Chase and George A. Fuller.	Lawrence, Mass	Nov. 30, 1858.
	Silk for use with felting substances, preparing. (See Class IV, letter P.)			
21556	Silk or other thread according to its size, machine for sorting.	Ira Dimock	Mansfield Centre, Conn	Sept. 21, 1858.
21481	Skirting material, manufacture of	Ernest Bredt	New York, N. Y	Sept. 14, 1858.

22262	Spindles for throstle spinning	Cyriel E. Brown, assignor to himself, John Tenney, and John Rhodes.	Millbury, Mass	Dec. 7, 1858.
20285	Spindles, machine for applying cop tubes to	John Marland	Lawrence, Mass	May 18, 1858.
20920	Spinning-frame	A. Houghton, assignor to himself and E. D. and G. Draper.	Putnam, Conn	July 13, 1858.
19161	Spinning-machine	William W. Spafford	Peterboro, N. H	Jan. 19, 1858.
21333	Spinning-machine, top rollers for	Charles Green	Salem, Mass	Aug. 31, 1858.
19531	Spinning-machines, machine for regulating the supply of roving to.	John B. Winslow	New Bedford, Mass	Mar. 2, 1858.
21242	Spinning-mules	J. H. Brickill	Taunton, Mass	Aug. 24, 1858.
19011	Spinning oakum	Smith Baldwin	St. Louis, Mo	Jan. 5, 1858.
20925	Thread, machinery for polishing	B. Richardson, assignor to himself and the Hayden Manufacturing Company.	Haydenville, Mass	July 13, 1858.
21487	Warp-dresser guides of glass or other plastic anti-corrosive material, moulds for making.	Alfred B. Carey	Franklin, Conn	Sept. 14, 1858.
21488	Warp-dressing guides	Alfred B. Carey	Franklin, Conn	Sept. 14, 1858.
20190	Warp, dressing and sizing	William Bradley	Manchester, Va	May 11, 1858; additional improvement Dec. 21, 1858.
21988	Wool and other fabrics for spinning, preparing.	Waterman Smith	Manchester, N. H	Nov. 2, 1858.
19816	Wool, machine for burring	T. Musgrave, assignor to Anna L. Musgrave.	Leeds, Mass	Mar. 30, 1858.
21538	Wool, machinery for drawing and twisting	John W. Kennedy and John T. Plummer, assignors to themselves and John Batchelder	Plainfield, Conn Lisbon, Conn	Sept. 14, 1858.
21116	Wool, &c., operating the teeth of cylinders for burring.	Thomas B. Butler	Norwalk, Conn	Aug. 10, 1858.
	Woollens, &c., solutions for cleansing. (See Class IV, letter C.)			
19690	Yarn, roving or, regulators for	Daniel Dermond	Philadelphia, Pa	Mar. 23, 1858.

CLASS IV.—CHEMICAL PROCESSES, MANUFACTURES, AND COMPOUNDS, *including medicines, dyeing, color-making, distilling, soap and candle making, mortars, cements, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20755	Acid, obtaining pure sulphurous	Joseph Albrecht, assignor to Charles E. Ruth.	New Orleans, La	June 29, 1858.
21711	Acids, fatty, apparatus for manufacturing	M. Werk	Cincinnati, Ohio	Oct. 5, 1858.
21922	Aluminum, preparation of	Luigi Ferrari Corbelli and Vincent Riatti, assignors to L. F. Corbelli	Florence, Tuscany Duchy of Modena	Oct. 26, 1858.
21923	Aluminum and calomel, manufacture of	Luigi Ferrari Corbelli and Vincent Riatti, assignors to L. F. Corbelli	Florence, Tuscany Duchy of Modena	Oct. 26, 1858.
20488	Beer, manufacture of, apparatus for	George Habich	Roxbury, Mass	June 8, 1858.
21882	Candles, machine for making	John Jones	Baltimore, Md	Oct. 26, 1858.
21706	Candles, manufacture of	Joel H. Tatum	New York, N. Y	Oct. 5, 1858.
21697	Caoutchouc, tools for manufacturing goods of	Dubois D. Parmelee	New York, N. Y	Oct. 5, 1858.
21122	Caoutchouc, treatment of	Austin G. Day	Seymour, Conn	Aug. 10, 1858; reissued Nov. 9, 1858.
22115	Carbon, mode of baking articles composed of	De Grasse B. Fowler	New York, N. Y	Nov. 23, 1858.
20047	Carbon, sulphuret of, apparatus for manufacturing.	Edouard Deiss	Paris, France	Apr. 27, 1858; France, Nov. 13, 1855.
21158	Cement for roofing purposes	Joseph Thompson	North Wrentham, Mass	Aug. 10, 1858.
20985	Cement, water-proof	Abraham Brower	New York, N. Y	July 27, 1858.
20758	Charcoal, converting peat into	J. Burrows Hyde, assignor to Anna M. Hyde.	New York, N. Y	June 29, 1858.
20661	Cleansing woollens, &c., solutions for	E. F. Prentiss	Philadelphia, Pa	June 22, 1858.
20697	Coating metallic surfaces	William and William A. Butcher	Philadelphia, Pa	June 29, 1858.
21797	Coating metals	Selah Hiler, assignor to John M. and Cornelius A. Berrian.	Haverstraw, N. Y	Oct. 12, 1858.
20383	Composition for artificial leather	Samuel Whitmarsh	Northampton, Mass	May 25, 1858.
19778	Composition for coating telegraph wires	J. Burrows Hyde	New York, N. Y	Mar. 30, 1858.
21285	Composition for miniature cases, &c	Mark Tomlinson	Birmingham, Conn	Aug. 24, 1858.
22233	Composition for purifying gas	Paul B. Goddard	Philadelphia, Pa	Dec. 7, 1858.
19756	Composition for tanning leather	Clinton Daniels	Elkhorn, Wis	Mar. 30, 1858.
22285	Composition for tanning leather	William W. Garge	Rochester, N. Y	Dec. 14, 1858.
20320	Composition for varnishing leather	O. S. Boyden and M. C. Frederick	Newark, N. J	May 25, 1858.

20569	Composition ivory fram e	J. M. Legare	Aiken, S. C	June 15, 1858.
19802	Composition, mastic	Joseph Thompson	North Wrentham, Mass	Mar. 30, 1858.
	Composition roofing cement. (See Class IX, letter R.)			
22246	Composition, water-proof cork	Andrew Stevens	New York, N. Y	Dec. 7, 1858.
21778	Compositions used as building materials	N. C. Raymond	Austin, Texas	Oct. 12, 1858.
19710	Compounds for hardening iron and steel	Charles Pauvert	Targé, France	Mar. 23, 1858.
21033	Compounds for protecting trees from insects	W. W. Taylor	Dartmouth, Mass	July 27, 1858.
21023	Compounds for treating potato rot	Lyman Reed	Baltimore, Md	July 27, 1858.
22407	Distillation, destructive, apparatus for	Luther Atwood	Brooklyn, N. Y	Dec. 28, 1858.
21693	Distillation of fresh water from salt water	A. Normandy	London, England	Oct. 5, 1858.
22408	Distillation of wood, &c., destructive, apparatus for.	Luther Atwood	Brooklyn, N. Y	Dec. 28, 1858.
19210	Distillation, preparing mash for	George Seitz	Easton, Pa	Jan. 26, 1858.
20026	Distilling coal, &c., revolving retorts for	David Alter and Samuel A. Hill	Freeport, Pa	April 27, 1858.
20562	Distilling oil, apparatus for	John Howarth	Salem, Mass	June 15, 1858.
20587	Distilling oil from coal, retorts for	T. D. Sargent	Washington, D. C	June 15, 1858.
21143	Distilling oil from coal, retorts for	J. and W. B. McCue	Freeport, Pa	Aug. 10, 1858.
20371	Distilling spirit of turpentine, apparatus for	Daniel Reid	Washington, N. C	May 25, 1858.
20465	Distilling turpentine, apparatus for	Leonard Bellingrath, jr., assignor to D. and W. McLaurin and James W. Strange.	Fayetteville, N. C	June 1, 1858.
	Dough, raising. (See Class XVII, letter D.)			
19184	Dyeing yarn in the skein, apparatus for	Mathew Delany	Clinton, Mass	Jan. 26, 1858.
19701	Dyeing yarn parti-colored	David B. Kerr	New York, N. Y	Mar. 23, 1858.
20034	Evaporating brine, apparatus for	Dennis Brigham	New York, N. Y	April 27, 1858.
20631	Evaporating cane-juice, pans for	D. M. Cook	Mansfield, Ohio	June 22, 1858.
20687	Evaporating vessels, arrangement of steam-coils in.	H. O. Ames	New Orleans, La	June 29, 1858.
	Fluids, burning, manufacture of. (See Class V, letter B.)			
	Fuel, artificial, manufacture of. (See Class V, letter F.)			
20438	Gas-apparatus	E. J. Mannville and S. G. Blackman	Waterbury, Conn	June 1, 1858.
21072	Gas, apparatus for condensing and purifying	A. Hendrickx, assignor to Victoria Hendrickx.	New York, N. Y	Aug. 3, 1858.
21142	Gas, apparatus for generating	Henry Lyles	Washington, D. C	Aug. 10, 1858.
21914	Gas, apparatus for generating	Allen B. Wilson	Waterbury, Conn	Oct. 26, 1858.
20534	Gas, apparatus for manufacturing	John Absterdam	Boston, Mass	June 15, 1858.
20541	Gas, apparatus for manufacturing	William Beaumont	Paterson, N. J	June 15, 1858.

List of patents for inventions, 1858.—CLASS IV.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21095	Gas, apparatus for purifying	Andrew Walker	Claremont, N. H	Aug. 3, 1858.
21096	Gas, apparatus for purifying	John Waterhouse	Little Falls, N. Y	Aug. 3, 1858.
21121	Gas, apparatus for purifying	W. F. Danowsky	Allentown, Pa	Aug. 10, 1858.
22391	Gas, apparatus for purifying	Andrew Walker	Claremont, N. H	Dec. 21, 1858.
21001	Gas apparatus, valves of	August Hendrickx	New York, N. Y	July 27, 1858.
20110	Gas, carbonic acid, apparatus for generating	Thomas Warker	New York, N. Y	April 27, 1858.
19777	Gas-generator	John G. Hock	Newark, N. J	Mar. 30, 1858.
20177	Gas-generator	William N. Taylor	Philadelphia, Pa	May 4, 1858.
20897	Gas-generator	G. W. R. Seal	Winchester, Va	July 13, 1858.
19686	Gas-generators, method of cleansing	Saunders Coates	New York, N. Y	Mar. 23, 1858.
22463	Gas, illuminating, apparatus for generating	Charles N. Tyler	Washington, D. C	Dec. 28, 1858.
21027	Gas, illuminating, production of	J. Milton Sanders	Cincinnati, Ohio	July 27, 1858.
19575	Gas, manufacture of	David C. Knab	Paris, France	Mar. 9, 1858; Fr'nce, Mar. 30, 1849.
20453	Gas, manufacture of	John L. Stewart	East Boston, Mass	June 1, 1858.
20130	Gas-metre	Thomas Shaw, assignor to himself and C. S. Patterson.	Philadelphia, Pa	April 27, 1858.
21663	Gas-metre	Joseph E. Fisk	Salem, Mass	Oct. 5, 1858.
20680	Gas-metre, dry, valves for	C. C. Lloyd, assignor to W. Hopper and R. H. Gratz.	Philadelphia, Pa	June 22, 1858.
20058	Gas-metre, liquids for	H. P. Gengembre	Rock Island, Ill	April 27, 1858.
22267	Gas-metre, valves for	Robert M. Potter	New York, N. Y	Dec. 7, 1858.
20625	Gas-regulator	John H. Cooper	Philadelphia, Pa	June 22, 1858.
21048	Gas-regulator	Charles F. Holzer, assignor to William B. Smith and William Bromwell.	Philadelphia, Pa	July 27, 1858.
21022	Gas-regulator	J. H. Powers	Newark, N. J	July 27, 1858.
21281	Gas-regulator	W. G. Sterling	Bridgeport, Conn	Aug. 24, 1858.
21544	Gas-regulator	Salmon Bidwell, assignor to the New York Car and Steamboat Gas Company.	Chicago, Ill	Sept. 21, 1858.
21765	Gas-regulator	William Mallerd	Bridgeport, Conn	Oct. 12, 1858.
20375	Gas-retort	J. T. Sloan, Volney Smith, Manuel Hoover, and R. M. Briggs.	Jackson, Cal	May 25, 1858.

20448	Gas-retort	W. A. Simonds	Chelsea, Mass	June 1, 1858.
20671	Gas-retort	C. N. Tyler	Washington, D. C	June 22, 1858.
21169	Gas-retort	Alfred Marsh, assignor to himself, E. H. Covell, J. Q. Dudley, and R. Holmes.	Detroit, Mich	Aug. 10, 1858.
22434	Gas-retort	William H. Laubach	Philadelphia, Pa	Dec. 28, 1858.
20567	Gas, retort for generating	W. H. Laubach	Philadelphia, Pa	June 15, 1858.
19655	Gas-retort, portable	John W. Smith	Washington, D. C	Mar. 16, 1858.
19900	Gas-retort, portable	Davis L. Weatherhead and J. T. Henry, assignors to themselves, John M. Smith, and William P. Campbell.	Philadelphia, Pa	April 6, 1858.
21887	Gasometer	G. W. Kraft	Philadelphia, Pa	Oct. 26, 1858.
20988	Gasometers, method of counterpoising	P. T. Burtis	Chicago, Ill	July 27, 1858.
19668	Graphite in reducing metals, using	Joseph Weisman	Philadelphia, Pa	Mar. 16, 1858.
	Lubricating car-axles. (See Class X, letter A.)			
21761	Malt liquors, apparatus for preserving	John Keane	New York, N. Y	Oct. 12, 1858.
19974	Manure-beds, preparing	Charles Spieker	New York, N. Y	April 13, 1858; England, Aug. 19, 1857.
	Mash-tubs, heating, apparatus for. (See Class V, letter H.)			
21835	Mercury, bottles for containing	Isaac G. Johnson	Spuyten Duyvel, N. Y	Oct. 19, 1858.
22152	Oils, kettles for trying	J. L. Alberger	Buffalo, N. Y	Nov. 30, 1858.
22406	Oils, pyrogenic, manufacture of	Luther Atwood	Brooklyn, N. Y	Dec. 28, 1858.
21805	Oils, &c., volatile, extraction of, from coal	Luther Atwood	Brooklyn, N. Y	Oct. 19, 1858.
20205	Paint-compound	William G. Huyett	Williamsburgh, Pa	May 11, 1858.
19014	Paint-vehicles	A. C. Church	Union City, Mich	Jan. 5, 1858.
20993	Paints	J. S. D'Orsey	New York, N. Y	July 27, 1858.
21810	Paints, composition for	James H. Beardsley	New York, N. Y	Oct. 19, 1858.
22015	Paper and other fabrics incorrodible, rendering	Thomas G. Chase	Philadelphia, Pa	Nov. 9, 1858.
19657	Preparing silk for use with felting substances	Anson Taylor	Brooklyn, N. Y	Mar. 16, 1858.
22185	Preservation of flesh for food	Nathan B. Marsh	Cincinnati, Ohio	Nov. 30, 1858.
	Preserving fruit. (See Class XVII, letter F.)			
22132	Preserving surfaces of cast or wrought iron	Charles Francis Leopold Oudry	Paris, France	Nov. 23, 1858.
22249	Preventing incrustation of steam-boilers	John Warren Harnett	Cincinnati, Ohio	Dec. 7, 1858.
19036	Process of dyeing silk, &c	Nicholas Mary Ainé	Philadelphia, Pa	Jan. 5, 1858.
19948	Process of extracting fat oils from seeds	John Preston	Dorchester, Mass	April 13, 1858.
20048	Processes for extracting fatty matters	Edouard Deiss	Paris, France	April 27, 1858; France, Nov. 13, 1855.
20353	Production of electrotype-plates	Silas P. Knight	New York, N. Y	May 25, 1858.
20760	Rectifying, apparatus for	Ethan Campbell, assignor to Henry Thayer	Cambridgeport, Mass	June 29, 1858.
20967	Rectifying, apparatus for	G. Waters and J. W. Harnett	Cincinnati, Ohio	July 20, 1858.

List of patents for inventions, 1858.—CLASS IV.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Rendering lard, kettles for. (See Class V, letter K.)			
20938	Rubber goods, hard, manufacture of	Gustavus Cuppers	College Point, N. Y.	July 20, 1858; reissued, Aug. 24, 1858.
22265	Rubber goods, vulcanized, manufacture of	Hiram L. Hall, assignor to Beverly Rubber Company.	Beverly, Mass	Dec. 7, 1858.
22218	Rubber, hard, manufacture of	Thomas J. Mayall, assignor to himself and G. N. Davis.	Roxbury, Mass	Nov. 30, 1858.
19172	Rubber, restoring waste vulcanized	Hiram L. Hall, assignor to Beverly Rubber Company.	Beverly, Mass	Jan. 19, 1858.
20678	Rubber, restoring waste vulcanized	Francis Baschnagel, assignor to himself and Beverly Rubber Company.	Beverly, Mass	June 22, 1858.
22217	Rubber, restoring waste vulcanized	Hiram L. Hall, assignor to Beverly Rubber Company.	Beverly, Mass	Nov. 30, 1858.
20242	Rubber, utilizing waste vulcanized	Hiram L. Hall, assignor to Beverly Rubber Company.	Beverly, Mass	May 11, 1858.
22038	Shirred goods, machinery for manufacturing	Richard Solis	New Brunswick, N. J.	Nov. 9, 1858.
	Skins, artificial, manufacture of. (See Class XVI, letter S.)			
22330	Soap, machine for cutting	William H. Manning, assignor to himself and Lucius H. Olmsted.	Owego, N. Y.	Dec. 14, 1858.
19754	Soap, manufacture of	Dalrymple Crawford	Toronto, Canada	Mar. 30, 1858; reissued, Dec. 14, 1858.
19667	Soap, process of making	Campbell Morfit	Baltimore, Md	Mar. 16, 1858.
19960	Soda-fountain	C. D. Van Allen and S. Avery	Baldwinsville, N. Y.	April 13, 1858.
20382	Soda-water apparatus, portable	E. D. Wheeler	Murfreesborough, Tenn.	May 25, 1858.
22460	Starch, manufacture of	Samuel T. Stratton	Philadelphia, Pa.	Dec. 28, 1858.
20966	Steatite articles, manufacture of	J. Von Schwarz	Nuremberg, Bavaria	July 20, 1858: Bavaria, May 22, 1854.
	Sugar-cane, Chinese, mill for treating. (See Class XIII, letter M.)			
22126	Sugar-juices, furnace for evaporating	Louis Lefebvre	New Orleans, La.	Nov. 23, 1858
22307	Sugar-juices, furnace for evaporating	F Roy	Parish of St. Bernard, La.	Dec. 14, 1858.

19515	Sugar-kettles, method of setting	Honoré Roth	Iberville, La	Mar. 2, 1858.
21786	Sugar, manufacture of	J. C. Tucker and L. Lanzweert	San Francisco, Cal	Oct. 12, 1858.
20347	Sugar, manufacture of dextrine and	Theodore A. Hoffman	Beardstown, Ill	May 25, 1858.
19743	Sugar-mould carriages	C. E. Bertrand	Williamsburg, N. Y	Mar. 30, 1858.
20655	Sulphurets, metallic, treatment of	Alfred Monnier	Camden, N. J	June 22, 1858.
19991	Sulphuretted ores, treatment of	Isaac Gattman	Philadelphia, Pa	April 20, 1858.
	Vapor-burner, hydro-carbon. (See Class V, letter B.)			
19729	Varnishes, composition for	Damon R. Averill, assignor to himself and James F. Davis.	Pulaski, N. Y	Mar. 23, 1858.
21284	Vats, apparatus attached to steam-coils in	John Trageser	New York, N. Y	Aug. 24, 1858.
19771	White lead, apparatus for manufacturing	Henry Hannen	Dubuque, Iowa	Mar. 30, 1858.
20731	White lead, apparatus for manufacturing	Robert Rowland	New York, N. Y	June 29, 1858.
22036	White lead, manufacture of	Benjamin F. Smith	New York, N. Y	Nov. 9, 1858.
21915	Worts, apparatus for cooling	John Wilkins	Troy, N. Y	Oct. 26, 1858.
	Zinc, furnaces for manufacturing oxide. (See Class V, letter F.)			
	Zinc, metallic, manufacture of. (See Class II.)			

Class V.—Calorifics, *comprising lamps, fire places, stoves, grates, furnaces for heating buildings, cooking apparatus, preparation of fuel, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20304	Baking and cooking, apparatus for	W. G. Ruggles	Worcester, Mass	May 18, 1858.
19636	Blow-pipe	Joseph Hollely	New York, N. Y	Mar. 16, 1858.
20546	Boilers, rotary, mode of heating	C. S. Buchanan	Ballston, N. Y	June 15, 1858.
21085	Boiling furnace and cooking-range, combined	William Resor	Cincinnati, Ohio	Aug. 3, 1858.
21297	Broiling, toasting, &c., apparatus for	H. W. Harkness and W. A. Terry, assignors to themselves and Joseph Sigourney.	Bristol, Conn	Aug. 24, 1858.
20305	Burners, devices for regulating by electricity the issue of gas from.	Charles W. Smith	Evans, N. Y	May 18, 1858.
21893	Burners, hydro-carbon vapor	A. M. Mace	Springfield, Mass	Oct. 26, 1858.
20558	Burning fluids, manufacture of	Levi L. Hill	Greenport, N. Y	June 15, 1858.

List of patents for inventions, 1858—CLASS V.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21987	Candlesticks, &c	Samuel Slocomb	Cambridge, Mass	Nov. 2, 1858.
21884	Chimney-caps	Bernhard Kihlholz	St. Louis, Mo	Oct. 26, 1858.
22112	Chimney-caps	Charles Douglas	Cleveland, Ohio	Nov. 23, 1858.
21115	Chimneys, wind-guard for	Frederick M. Butler	New York, N. Y	Aug. 10, 1858.
20662	Coal ashes, &c., apparatus for sifting	L. H. Proctor	East Saugus, Mass	June 22, 1858.
19481	Coal, machine for breaking	Aquila Bolton	Port Carbon, Pa	Mar. 2, 1858.
19429	Coal, machine for splitting	John H. Lyon	Baltimore, Md	Feb. 23, 1858.
21559	Coal, machine for washing	Joseph P. Evans	Hazleton, Pa	Sept. 21, 1858.
19175	Coal-screens	George E. Hoyt and Frederick Nishwitz, assignors to George E. Hoyt.	Brooklyn, N. Y	Jan. 19, 1858.
20000	Coal-scuttle and ash-sifter, combined	Archibald McNeill	Washington, D. C	April 20, 1858.
19768	Coal, slating, machine for	T. Garretson	Pottsville, Pa	Mar. 30, 1858.
19249	Damper regulator	James How and Charles Copeland	Brooklyn, N. Y	Feb. 2, 1858.
22144	Dryer, grain and fruit	Charles A. Haskins and George Macardle, assignors to Joshua A. French and Eliza C. Tyrrell.	New York, N. Y	Nov. 23, 1858.
	Fire-alarm apparatus, electro-magnetic. (See Class VIII, letter E.)			
	Fire and burglar proof safes. (See Class II, letter S.)			
19358	Fire-box and grate	Jacob J. Folts	Buffalo, N. Y	Feb. 16, 1858.
22162	Fire-engine	Lysander Button and Robert Blake	Waterford, N. Y	Nov. 30, 1858.
20867	Fire-engines, force-pumps for	John N. Dennisson	Newark, N. J	July 13, 1858.
20875	Fire-escape ladder	Joseph H. Grimsley	New Lexington, Ohio	July 13, 1858.
22324	Fire-escape ladder	John Withers,	Collinsville, Ill	Dec. 14, 1858.
	Fire-ladder. (See Class XXII, letter F.)			
21094	Fireplaces	W. R. Warden	Boston, Mass	Aug. 3, 1858.
22410	Fuel, artificial, manufacture of	William A. Bradley and Jacob Bigelow	Washington, D. C	Dec. 28, 1858.
19942	Furnace	James McCracken	Bloomfield, N. J	April 13, 1858.
20836	Furnace	B. H. Washington	Hannibal, Mo	July 6, 1858.
19781	Furnace, air-heating	T. Dwight Ingersoll	Monroe, Mich	Mar. 30, 1858.
20640	Furnace, air-heating	John P. Hayes	Philadelphia, Pa	June 22, 1858.

22353	Furnace, bagasse	Felix Dounoy	Carrollton, La	Dec. 21, 1858.
22382	Furnace boiler	Evan Skelly	Plaquemine, La	Dec. 21, 1858.
20591	Furnace for burning bagasse, &c	Evan Skelly	Plaquemine, La	June 15, 1858.
22067	Furnace for burning coal-dust	G. B. Deppen and E. Levengood	Myerstown, Pa	Nov. 16, 1858.
22424	Furnace for burning lime	Thomas R. Hartell	Philadelphia, Pa	Dec. 28, 1858.
	Furnace for evaporating sugar juices. (See Class IV, letter S.)			
21724	Furnace for heating buildings	John Plant, assignor to himself and George H. Plant.	Washington, D. C	Oct. 5, 1858.
20616	Furnace for heating steam-boilers, &c	Gideon Bantz	Frederick, Md	June 22, 1858.
19277	Furnace for locomotives	O. W. Bayley, assignor to the Boston Locomotive Works.	Boston, Mass	Feb. 2, 1858.
20926	Furnace for manufacturing oxide of zinc	J. Wharton and N. Bartlett, assignors to Joseph Wharton	Philadelphia, Pa Bethlehem, Pa	July 13, 1858.
22257	Furnace for melting iron	William McFarland	St. Louis, Mo	Dec. 7, 1858.
21828	Furnace for tempering steel	Perry G. Gardiner	New York, N. Y	Oct. 19, 1858.
22041	Furnace for tempering steel	Joseph Thomas	New York, N. Y	Nov. 9, 1858.
20316	Furnace grates	A. J. Allen and W. S. Hudson	Paterson, N. J	May 25, 1858.
19239	Furnace, hot air	George Darby	Augusta, Me	Feb. 2, 1858.
19683	Furnace, hot-air	John Child	Elyria, Ohio	Mar. 23, 1858.
20454	Furnace, hot-air	J. Stuber and F. Frank	Utica, N. Y	June 1, 1858.
22173	Furnace, hot-air	John R. Fergusson	Brooklyn, N. Y	Nov. 30, 1858.
19502	Furnace, hot-air, register for	James W. Geddes	Baltimore, Md	Mar. 2, 1858.
19678	Furnace, hot-air, self-adjusting damper for	Ebenezer Barrows, jr	Brooklyn, N. Y	Mar. 23, 1858.
	Furnace of steam-boilers. (See Class VI, letter B.)			
21644	Furnace, steam-boiler	James Alcorn, jr	Charlestown, Mass	Oct. 5, 1858.
20667	Furnaces of boilers and stoves	Silas T. Savage	Albany, N. Y	June 22, 1858.
20351	Furnaces, &c, apparatus for separating the combustible from the incombustible gases or products of combustion in.	William D. Jones	Hagaman's Mills, N. Y	May 25, 1858.
19720	Gas-burner	D. Sullivan and M. McIntyre	Cincinnati, Ohio	Mar. 23, 1858.
19959	Gas-burner	William Tallman	Cincinnati, Ohio	April 13, 1858.
20584	Gas-burner	Amos H. Ray	Boston, Mass	June 15, 1858.
20626	Gas-burner	Robert Cornelius	Philadelphia, Pa	June 22, 1858.
21076	Gas-burner	F. C. Krause	New York, N. Y	Aug. 3, 1858.
21229	Gas-burner	William Wright	St. Louis, Mo	Aug. 17, 1858.
21497	Gas-burner	Lucien E. Hicks	New York, N. Y	Sept. 14, 1858.

List of patents for inventions, 1858—CLASS V.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21586	Gas-burner	A. H. Wood	Boston, Mass	Sept. 21, 1858. Reissued Dec. 28, 1858.
21728	Gas-burner	J. F. Tozer, assignor to George W. Gregory	Binghamton, N. Y	Oct. 5, 1858.
21733	Gas-burner	Yarnall Bailey	Philadelphia, Pa	Oct. 12, 1858.
20604	Gas-burner, Argand	W. W. Batchelder, assignor to William J. Townsend.	New York, N. Y	June 15, 1858.
21090	Gas-burner, Argand	J. E. Stanwood	Malden, Mass	Aug. 3, 1858.
22331	Gas for heating and illuminating purposes, method of applying.	Calvin Pepper, assignor to himself and John G. Treadwell.	Albany, N. Y	Dec. 14, 1858.
19185	Gas-heating apparatus	P. S. Devlan	Camden, N. J	Jan. 26, 1858.
22134	Grate-bars	Silas T. Savage	Albany, N. Y	Nov. 23, 1858.
21157	Gridiron, folding	J. H. Thomas	Newark, N. J	Aug. 10, 1858.
	Heater cover, sad-iron. (See Class XVII, letter S.)			
20939	Heater, steam	Chauncey A. Dickerman	New Haven, Ct	July 20, 1858.
19197	Heaters or coolers	John C. Hoadley	Lawrence, Mass	Jan. 26, 1858.
22109	Heating and ventilating buildings, apparatus for.	William H. Churchman	Janesville, Wis	Nov. 23, 1858.
19775	Heating apparatus	Francis L. Hedenberg	New York, N. Y	Mar. 30, 1858.
	Heating apparatus for the manufacture of cemented shoe-soles. (See Class XVI, letter S.)			
21185	Heating apparatus, steam	Henry G. Bulkley	Kalamazoo, Mich	Aug. 17, 1858.
20917	Heating buildings by combustion of gas or alcohol, radiators for.	J. H. Chester, assignor to M. A. Chester	Cincinnati, Ohio	July 13, 1858.
21195	Heating mash-tubs, apparatus for	Adolph Hammer	Reading, Pa	Aug. 17, 1858.
20767	Heating tire, apparatus for	J. P. White, assignor to himself and F. Fox	Philadelphia, Pa	June 29, 1858.
20856	Kettles for rendering lard	John J. Bate	Brooklyn, N. Y	July 13, 1858.
19266	Lamp	John Stuber and Richard Hughes	Utica, N. Y	Feb. 2, 1858.
19896	Lamp	P. Plant, assignor to himself and P. Hannay	Washington, D. C	April 6, 1858.
19898	Lamp	Robert Steinman, assignor to himself and N. S. Wax.	Boston, Mass	April 6, 1858.

20159	Lamp	Edward F. Jones	Boston, Mass	May 4, 1858.
20134	Lamp	L. Bailey and R. Thayer	Charlestown, Mass Boston, Mass	May 4, 1858.
21069	Lamp	William Fulton	Cranberry, N. J.	Aug. 3, 1858.
21344	Lamp	James P. and Ellen Kenyon	Brooklyn, N. Y	Aug. 31, 1858.
21576	Lamp	Christian Reichmann	Philadelphia, Pa	Sept. 21, 1858.
21627	Lamp	W. H. Racey	St. Augustine, Fla	Sept. 28, 1858.
21617	Lamp	William Mulholland	Brooklyn, N. Y	Sept. 28, 1858.
22327	Lamp	Nathaniel Cradit, assignor to Chester G. Robinson.	Ripley, Ohio	Dec. 14, 1858.
22409	Lamp	William W. Batchelder	New York, N. Y	Dec. 28, 1858.
20289	Lamp, aero-vapor burner for	Oscar F. Morrill	Boston, Mass	May 18, 1858.
19885	Lamp attachment	William W. Wade and Charles Burnham	Long Meadow, Mass Springfield, Mass	April 6, 1858.
20178	Lamp attachment for preventing smoke, &c	Ralph Thomas	Hoboken, N. J.	May 4, 1858.
20977	Lamp, burner and wick-tube for vapor	M. Safford, assignor to himself and G. P. Kinney.	Boston, Mass	July 20, 1858.
22253	Lamp, burner for	Josee Johnson and Frederick Bailey	New York, N. Y	Dec. 7, 1858.
22230	Lamp, burner for	M. B. Dyott	Philadelphia, Pa	Dec. 7, 1858.
20232	Lamp, burner for vapor	Thomas Varney	San Francisco, Cal	May 11, 1858.
20296	Lamp, burner for vapor	John K. O'Neil	Kingston, N. Y	May 18, 1858.
20498	Lamp, burner for vapor	C. B. Loveless	Syracuse, N. Y.	June 8, 1858.
21053	Lamp, burner for vapor	G. W. Randall, assignor to R. J. Todd	Boston, Mass	July 27, 1858.
21166	Lamp, burner for vapor	F. Heidrick, assignor to C. F. Clothier	Philadelphia, Pa	Aug. 10, 1858.
22270	Lamp, burner for vapor	E. M. Williams, assignor to himself and John Gabel.	Philadelphia, Pa	Dec. 7, 1858.
22465	Lamp, burner for vapor	Sigourney Wales	Boston, Mass	Dec. 28, 1858.
20153	Lamp-burner, vapor	C. A. Greene	Boston, Mass	May 4, 1858.
20324	Lamp-burner, vapor	Daniel H. Carpenter	New York, N. Y	May 25, 1858.
20648	Lamp-burner, vapor	A. M. Mace	Springfield, Mass	June 22, 1858.
21239	Lamp-burner, vapor	Solomon Andrews	Perth Amboy, N. J	Aug. 24, 1858.
20746	Lamp, burning-fluid	Hiram Todd	Columbus, Ohio	June 29, 1858.
20641	Lamp, camphene	Elias J. Hale	Foxcroft, Me	June 22, 1858.
20748	Lamp caps, method of fastening the wick-tube in	W. W. Wade	Long Meadow, Mass	June 29, 1858.
22099	Lamp-case, locomotive	Irvin A. Williams	Utica, N. Y	Nov. 16, 1858.
20255	Lamp, electric	H. M. Collier and H. N. Baker	Binghampton, N. Y New York, N. Y	May 18, 1858.
20373	Lamp for burning coal-oil, &c	George Rimmington	South Booklyn, N. Y	May 25, 1858.
20573	Lamp for lighting gas	Charles McIntosh	Jersey City, N. J	June 15, 1858.

List of patents for inventions, 1858—CLASS V.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19287	Lamp, hydro-carbon vapor	Robert R. Crosby	Boston, Mass	Feb. 9, 1858.
19158	Lamp or candlestick and match-box combined	Thomas Shanks	Baltimore, Md	Jan. 19, 1858.
22311	Lamp-shade supporter	William F. Shaw	Boston, Mass	Dec. 14, 1858.
20283	Lamp, vapor	H. N. Macomber	Kingston, N. Y	May 18, 1858.
20386	Lamp, vapor	Horatio Bateman, assignor to William F. Bateman.	Boston, Mass	May 25, 1858.
20649	Lamp, vapor	A. M. Mace	Springfield, Mass	June 22, 1858.
20729	Lamp, vapor	W. H. Racey	St. Augustine, Fla	June 29, 1858.
20952	Lamp, vapor-burning	Nicholas Mason	Chelsea, Mass	July 20, 1858.
21890	Lamp-wicks	J. Y. Leslie	Brooklyn, N. Y	Oct. 26, 1858.
20785	Lamps to lanterns, method of attaching	John Fleming	Pittsburg, Pa	July 6, 1858; add'l imp't Nov. 2, 1858.
19207	Lantern	Jacob H. Reighard	Birmingham, Pa	Jan. 26, 1858.
19897	Lantern	Jacob H. Reighard, assignor to himself, John Bird, and David Challiner.	Birmingham, Pa	April 6, 1858.
19845	Lantern	A. H. Golden	Lafayette, Ia	April 6, 1858.
21521	Lantern	Stillman C. Spaulding	Rutland, Vt	Sept. 14, 1858.
21485	Lantern attachment to caps	Joseph C. Carey	New York, N. Y	Sept. 14, 1858.
21209	Lantern for burning coal-oil	Max Miller	Brooklyn, N. Y	Aug. 17, 1858.
20302	Lantern, self-lighting and extinguishing	Adolph Roesler and Charles Frey	Warsaw, Ill	May 18, 1858.
19044	Lanterns, attachment for lighting	Albert C. Richard	Newtown, Conn	Jan. 5, 1858.
20404	Mantel bar	W. P. Chadwick	Edgartown, Mass	June 1, 1858.
	Oven. (See Class XVII.)			
21271	Oven	G. Graves Otis	Yonkers, N. Y	Aug. 24, 1858.
21147	Oven, bake	William Pettet	New York, N. Y	Aug. 10, 1858.
21620	Oven, baker's	W. R. Nevins and J. J. Yates	New York, N. Y	Sept. 28, 1858; England, Mar. 13, 1857.
21610	Ovens by steam, method of heating	Hamilton Lyon	Cincinnati, Ohio	Sept. 28, 1858.
19591	Radiator, hot water	Thomas T. Tasker	Philadelphia, Pa	Mar. 9, 1858.
22289	Radiator, steam	J. H. Holt and J. H. Gerould	Chicago, Ill	Dec. 14, 1858.
20132	Radiator, syphonic	Charles Williams, assignor to himself and Charles J. Shepard.	Brooklyn, N. Y	April 27, 1858.

20064	Range and coal gas generator, combination cooking.	A. Hendricks	Morrisania, N. Y.	April 27, 1858.
21608	Range and heating apparatus, combined	Charles Kane	New York, N. Y.	Sept. 28, 1858.
22120	Range, cooking	Joshua Harrison	New York, N. Y.	Nov. 23, 1858.
19368	Range, water back for	James Ingram	New York, N. Y.	Feb. 16, 1858.
21702	Ranges and stoves, cooking-boilers for	Joseph Schmadel	Dayton, Ohio	Oct. 5, 1858.
20589	Reflector, light	William F. Shaw	Boston, Mass.	June 15, 1858.
20106	Registers and ventilators, warm-air	Edward A. Tuttle	Brooklyn, N. Y	April 27, 1858.
21416	Roaster, coffee	Theodore Heerman	Mitchellville, Tenn	Sept. 7, 1858.
21845	Roaster, coffee	Charles J. C. Peterson	Davenport, Iowa	Oct. 19, 1858.
21387	Roasting coffee, apparatus for	Samuel Tower	Grand Rapids, Mich.	Aug. 31, 1858.
21119	Safe-doors, safety-guard for	John B. Cornell	New York, N. Y.	Aug. 10, 1858.
19111	Safe, match	John B. Creemer, assignor to himself and S. Dwight Humphrey.	New York, N. Y.	Jan. 12, 1858.
20989	Safe, plates for burglar-proof	Ira L. Cady, assignor to J. B. and W. W. Cornell & Co.	New York, N. Y.	July 27, 1858.
19923	Safe, water and fire proof	John T. Garlick	New York, N. Y.	April 13, 1858.
21405	Sifter, coal or ashes	Louis D. Bartlett	Boston, Mass.	Sept. 7, 1858.
20909	Smoke-stack for steam vessels	William Webster	Jefferson county, Washington Territory.	July 13, 1858.
19240	Stove	Rufus Dawes	Washington, D. C	Feb. 2, 1858.
19796	Stove	S. T. Savage	Albany, N. Y	Mar. 30, 1858.
20274	Stove	J. C. Henderson	Albany, N. Y	May 18, 1858; reissued Nov. 9, 1858.
20389	Stove	Charles Hooffstatter, assignor to Joseph Firman.	Rome, N. Y.	May 25, 1858.
20466	Stove	J. S. Brown, assignor to himself and Joseph Kent.	Washington, D. C	June 1, 1858.
21103	Stove	J. H. Wilkinson	Concord, N. H.	Aug. 3, 1858.
21084	Stove	Andrew Ralston	West Middletown, Pa	Aug. 3, 1858.
21191	Stove	C. O. Foley	Troy, N. Y	Aug. 17, 1858.
21446	Stove	S. T. Savage	Albany, N. Y	Sept. 7, 1858.
21938	Stove	J. H. Buchanan	New Concord, Ohio	Nov. 2, 1858.
22250	Stove	Charles Hartwell	Boston, Mass	Dec. 7, 1858.
22277	Stove	John S. Clark and Washington Harris	Philadelphia, Pa.	Dec. 14, 1858.
22276	Stove	John S. Clark	Philadelphia, Pa.	Dec. 14, 1858.
22342	Stove	R. W. Belson	Philadelphia, Pa.	Dec. 21, 1858.
22392	Stove	David Wells	Lowell, Mass.	Dec. 21, 1858.
22416	Stove	Nelson Edwards	Chittenden county, Vt	Dec. 28, 1858.

List of patents for inventions, 1858—CLASS V.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21445	Stove, coal	S. T. Savage	Albany, N. Y	Sept. 7, 1858.
21731	Stove, cook, hot-air	Joseph M. Babcock	Albany, N. Y	Oct. 12, 1858.
19650	Stove, cooking, (A)	Christian Raub	Davenport, Iowa	Mar. 16, 1858.
19651	Stove, cooking, (B)	Christian Raub	Davenport, Iowa	Mar. 16, 1858.
19956	Stove, cooking	James Spear	Philadelphia, Pa	April 13, 1858.
20265	Stove, cooking	R. D. Granger	Philadelphia, Pa	May 18, 1858.
20450	Stove, cooking	James Spear	Philadelphia, Pa	June 1, 1858.
20430	Stove, cooking	M. L. Horton	Claremont, N. H	June 1, 1858.
20682	Stove, cooking	G. G. Richmond and G. W. Pittock, assignors to themselves and C. Phelps, and J. Lown and said Pittock assignors to D. B. Carver.	Troy, N. Y	June 22, 1858.
20668	Stove, cooking	S. B Spaulding	Brandon, Vt	June 22, 1858.
20733	Stove, cooking	S. T. Savage	Albany, N. Y	June 29, 1858.
21171	Stove, cooking	J. L. Stewart, assignor to Rudolph A. Nathurst.	Nashville, Tenn	Aug. 10, 1858.
21518	Stove, cooking	Apollos Richmond	Brooklyn, Conn	Sept. 14, 1858.
21900	Stove, cooking	John Pearson, jr.	Newburyport, Mass	Oct. 26, 1858.
22121	Stove, cooking	Richard M. Hermance	Stillwater, N. Y	Nov. 23, 1858.
22147	Stove, cooking	Gibson North, assignor to North, Chase, & North.	Philadelphia, Pa	Nov. 23, 1858.
22223	Stove, cooking	F. C. Adams and Joseph Peckover	Cincinnati, Ohio	Dec. 7, 1858.
20133	Stove, cooking, oven for	James Easterly	Albany, N. Y	April 27, 1858.
21046	Stove for burning soft coal	M. P. Dorsch, assignor to Peter Dorsch	New York, N. Y	July 27, 1858.
19114	Stove, gas	Patrick Mihan, assignor to himself and Gilman Davis.	Boston, Mass	Jan. 12, 1858.
21075	Stove, gas	M. W. Kidder	Lowell, Mass	Aug. 3, 1858.
22335	Stove, gas-burning	Thomas Shaw, assignor to himself and C. S. Patterson.	Philadelphia, Pa	Dec. 14, 1858.
19713	Stove-heating apparatus	David S. Quimby	Brooklyn, N. Y	Mar. 23, 1858.
21447	Stove-lining, coal, construction of	S. T. Savage	Albany, N. Y	Sept. 7, 1858.
	Stove, steam. (See Class VI, letter S.)			

20415	Stove, wood-burning	M. G. Fagan	Troy, N. Y	June 1, 1858.
21707	Stoves and furnaces, lining for coal	William B. Treadwell	Albany, N. Y	Oct. 5, 1858.
21410	Stoves, coal, grates for	James Easterly	Albany, N. Y	Sept. 7, 1858.
21467	Stoves, cooking, flues of elevated oven	James Easterly, assignor to himself and Dennis G. Littlefield	Albany, N. Y	Sept. 7, 1858.
20919	Stoves, furnaces, &c., atmospheric regulator for	Birdsill Holly, assignor to himself and John S Edwards.	Seneca Falls, N. Y	July 13, 1858.
19436	Tongs, fire	Daniel Moore	Brooklyn, N. Y	Feb. 23, 1858.
19089	Ventilating pulpits, apparatus for	James P. Herron	Huntsville, Ohio	Jan. 12, 1858.
20068	Warming-apparatus, steam	E. T. Ingalls and James R Nichols	Haverhill, Mass	April 27, 1858.
21376	Warming device, feet	G. W. Smith	Aurora, Ind	Aug. 31, 1858.

Class VI.—Steam and gas engines, *including boilers and furnaces therefor, and parts thereof.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19601	Boiler, steam	Joseph Wood and H. N. Winans	Jersey City, N. J	Mar. 9, 1858.
19621	Boiler, steam	Abner Clark	Fort Des Moines, Iowa	Mar. 16, 1858.
19669	Boiler, steam	Henry Whinfield	New York, N. Y	Mar 16, 1858.
20167	Boiler, steam	James Montgomery	Brooklyn, N. Y	May 4, 1858.
20319	Boiler, steam	George W. Barnett	Springfield, Ohio	May 25, 1858.
20802	Boiler, steam	Alonzo R. Ketcham	Buffalo, N. Y	July 6, 1858.
21017	Boiler, steam	Orrin Newton	Pittsburg, Pa	July 27, 1858.
22303	Boiler, steam	Charles J. C. Petersen	Davenport, Iowa	Dec. 14, 1858.
22334	Boiler, steam	I. C. Stern, assignor to himself and G. W. Stone.	Philadelphia, Pa	Dec. 14, 1858.
19493	Boilers, apparatus for supplying water to	John N. Dennison and Thomas Sealy	Newark, N. J	Mar. 2, 1858; France, Aug. 26, 1857.
21040	Boilers, steam, alarm-gauge for	Joseph Whitmore	Lowell, Mass	July 27, 1858.
21003	Boilers, steam, apparatus for regulating the supply of water to.	Talmon L. Jacobs	Hebron, Conn	July 27, 1858.
20477	Boilers, steam, apparatus for supplying water to	George Brodie	Little Rock, Ark	June 8, 1858.
22271	Boilers, steam, device for preventing explosions in.	Jane H. Lloyd, executrix of Richard L. Lloyd, deceased, assignor to George T. Parry.	Philadelphia, Pa	Dec. 7, 1858.

List of patents for inventions, 1858—CLASS VI.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20380	Boilers, steam, feed-regulator for	Leonard Thorn	New York, N. Y	May 25, 1858.
22284	Boilers, steam, feed-water and blow-off apparatus for.	Jacob Frick	Philadelphia, Pa	Dec. 14, 1858.
22169	Boilers, steam, furnaces for	F. P. Dimpfel	Philadelphia, Pa	Nov. 30, 1858; England, May 24, 1856.
20840	Boilers, steam, furnaces of	Henry Yates	Brantford, Canada	July 6, 1858.
21013	Boilers, steam, grates for	James Montgomery	Brooklyn, N. Y	July 27, 1858.
	Boilers, steam, preventing incrustation of. (See Class IV, letter P.)			
19568	Boilers, steam, safety apparatus for	William Kemble Hall	West Hoboken, N. J	Mar. 9, 1858; England, Nov. 12, 1855.
21991	Boilers, steam, safety apparatus for	Francis Stebbins	Hinsdale, N. H	Nov. 2, 1858.
22178	Boilers, steam, sediment collector for	Hiram H. Havens	New York, N. Y	Nov. 30, 1858.
20398	Boilers, steam, telephonic indicator for	Thomas P. Akers	Lexington, Mo	June 1, 1858.
21686	Boilers, steam, water-alarm for	Levi E. Lincoln	Lowell, Mass	Oct. 5, 1858.
21836	Boilers, steam, water-gauges for	Josee Johnson and Rufus Lapham	New York, N. Y	Oct. 19, 1858.
	Boilers, steam, &c., furnaces for heating. (See Class V, letter F.)			
20927	Condensers, tube-joints for	Horatio Allen	New York, N. Y	July 20, 1858.
	Engine, air. (See Class XI, letter A.)			
20172	Engine, gas, arrangement of	John C. Fr. Salomon	Baltimore, Md	May 4, 1858.
20613	Engine, reciprocating rotary	George Ambrose	New York, N. Y	June 22, 1858.
19100	Engine, rotary steam	Lewis Peter	Gnadenhutten, Ohio	Jan. 12, 1858.
19247	Engine, rotary steam	Levi F. Goben	Spring Hill, Mo	Feb. 2, 1858.
19537	Engine, rotary steam	Alfred Arnold	New York, N. Y	Mar. 9, 1858.
19697	Engine, rotary steam	James B. Groomes	Carmichaels, Pa	Mar. 23, 1858.
19967	Engine, rotary steam	Levi Matthews, assignor to himself and J. K. Andrews.	Antrim, Ohio	April 13, 1858.
21494	Engine, rotary steam	John and Ezra Harthan	Timber's Brook, England	Sept, 14, 1858. England, Jan. 26, 1858.
20136	Engine, steam	Daniel Barnum	Jersey City, N. J	May 4, 1858.
20782	Engine, steam	John Ericsson	New York, N. Y	July 6, 1858.

21059	Engine, steam	H. & F. I. L. Blandy	Zanesville, Ohio	Aug. 3, 1858.
21165	Engine, steam	J. J. G. Collins, assignor to himself, W. A. Rhodes, and T. Drake.	Philadelphia, Pa	Aug. 10, 1858.
21907	Engine, steam	C. A. Schultz	New York, N. Y	Oct. 26, 1858.
22200	Engine, steam	Rufus Porter	Washington, D. C	Nov. 30, 1858.
20533	Engine, steam, mode of applying the power of the.	J. Widmer, assignor to himself and H. Gilbert.	New Haven, Conn	June 8, 1858.
19057	Engine, steam, oscillating	Adam Wood	Pittsburg, Pa	Jan. 5, 1858.
19464	Engine, steam, oscillating	John S. Barden, assignor to himself and Aaron W. Rockwood.	New Haven, Conn	Feb. 23, 1858.
21873	Engine, steam-pumping	Ezra Cope	Cincinnati, Ohio	Oct. 26, 1858.
19715	Engine, steam, revolving cylinder	Thomas Rogers	Philadelphia, Pa	Mar. 23, 1858.
19098	Engine, steam, valve arrangement for	Nahum S. C. Parkins	Norwalk, Ohio	Jan. 12, 1858. England, Aug. 17, 1857.
21911	Engines, applying power to the cranks of	Thomas Stewart	Philadelphia, Pa	Oct. 26, 1858.
21789	Engines, construction of cylinders and pistons for pumps and steam.	Wallace Wells	New York, N. Y	Oct. 12, 1858.
19220	Engines, steam, arrangement of passages and valves for cushioning the pistons of.	Norman W. Wheeler	New York, N. Y	Jan. 26, 1858.
19154	Engines, steam, cut-off for	A. P. Samuel	New York, N. Y	Jan. 19, 1858.
21399	Engines, steam, cut-off for	J. Widmer, assignor to himself and H. Gilbert.	New Haven, Conn	Aug. 31, 1858.
22344	Engines, steam, cut-off gear for	John Broughton	New York, N. Y	Dec. 21, 1858.
22361	Engines, steam, cut-off gear for	P. W. Gates, D. R. Frazer, and Thomas Chalmers.	Chicago, Ill	Dec. 21, 1858.
19890	Engines, steam, grates for	Ross Winans	Baltimore, Md	April 6, 1858.
19888	Engines, steam, pistons for	Ross Winans	Baltimore, Md	April 6, 1858.
19134	Engines, steam, variable cut-offs for	Addison Crosby	Fredonia, N. Y	Jan. 19, 1858.
22189	Gauge-cock	R. L. Mills	Lancaster, Ohio	Nov. 30, 1858.
20726	Gauge-cock and alarm-whistle	Alexander Miller	Cleveland, Ohio	June 29, 1858.
20851	Gauge, magnetic steam	Joshua Lowe, assignor to himself and Daniel Barnum.	New York, N. Y	July 6, 1858.
20848	Gauge, pressure	W. C. Grimes, assignor to David Matthew.	Philadelphia, Pa	July 6, 1858.
19731	Gauge, steam	Franz Burckle, assignor to Edward H. Ashcroft.	Boston, Mass	Mar. 23, 1858.
22287	Gauge, steam and water-alarm, for steam-boilers.	George W. Grader and Benjamin F. Cowan	Memphis, Tenn	Dec. 14, 1858.
19400	Gauge, steam-pressure	William Burnett, assignor to Seth Adams	Boston, Mass	Feb. 16, 1858.

List of patents for inventions, 1858—CLASS VI.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19177	Gauge, steam, spring-pressure	Moses M. Young, assignor to himself, Harvey F. Litchfield, and Joseph G. Hamblin.	East Boston, Mass	Jan. 19, 1858.
22313	Gauge, water, for steam-boilers	Thomas Stubblefield	Columbus, Ga	Dec. 14, 1858.
20894	Governor for steam engine	C. T. Porter	New York, N. Y	July 13, 1858.
21056	Governor for steam-engine	Alban Anderson	Lancaster, Ohio	Aug. 3, 1858.
21475	Governor for steam-engine	William W. W. Wood, assignor to John Rice.	Philadelphia, Pa	Sept. 7, 1858.
22380	Governor for steam-engine	H. C. Sergeant	Columbus, Ohio	Dec. 21, 1858.
19995	Governor, steam	R. D. Jacobus	Newark, N. J	April 20, 1858.
	Heaters and coolers. (See Class V.)			
21699	Indicator, water, for steam-boilers	Martin Robbins and John L. Frisbie	Cincinnati, Ohio	Oct. 5, 1858.
20847	Indicators, water and steam	W. C. Grimes, assignor to David Matthew	Philadelphia, Pa	July 6, 1858.
22439	Locomotive axle-bearings	David Matthew	Philadelphia, Pa	Dec. 28, 1858.
20115	Locomotive boilers, fire-box of	Ross Winans	Baltimore, Md	April 27, 1858.
20117	Locomotive boilers, furnaces of	Ross Winans	Baltimore, Md	April 27, 1858.
19889	Locomotive engine	Ross Winans	Baltimore, Md	April 6, 1858.
19962	Locomotive engine	Ross Winans	Baltimore, Md	April 13, 1858.
21290	Locomotive engine	Ross Winans	Baltimore, Md	Aug. 24, 1858.
20114	Locomotive engine-boilers, fire-box of	Ross Winans	Baltimore, Md	April 27, 1858.
20116	Locomotive engines, boilers for	Ross Winans	Baltimore, Md	April 27, 1858.
19986	Locomotive engines, driving-wheels of	J. F. Elliott	New Haven, Conn	April 20, 1858.
20937	Locomotive engines, fire-boxes for	Leonard Crossman and Samuel Atkinson	Elizabeth City, N. J	July 20, 1858.
21021	Locomotive engines, grates for	Joseph W. Pole	Philadelphia, Pa	July 27, 1858.
21309	Locomotive engines, scraper for removing sparks from the smoke-stacks of.	Jacob A. Alter	Johnstown, Pa	Aug. 31, 1858.
21936	Locomotive engines, trucks for	Levi Bissell	New York, N. Y	Nov. 2, 1858.
20596	Locomotive signals	A. E. Turnbull	Springfield, Ohio	June 15, 1858.
21130	Locomotive steam-engine	John C. Hagan	Nashville, Tenn	Aug. 10, 1858.
	Locomotives, furnaces for. (See Class V, letter F.)			
19469	Locomotives in engine-houses, arrangement for carrying off smoke from.	John O. D. Lilly, James L. Vauclain, and James W. Lilly.	Lafayette, Ind	Feb. 23, 1858.

19468	Locomotives, walking, manner of attaching legs to.	Solomon G. Hoge, assignor to himself, R. H. St. John, and J. E. Leas.	Belle Fontaine, Ohio	Feb. 23, 1858.
19722	Pistons and piston-rod connexions	A. P. Samuel	New York, N. Y	Mar. 23, 1858.
21678	Pistons for steam-engines, packing	Hanford Horton	New York, N. Y	Oct. 5, 1858.
21687	Spark-arrester	Joseph Marks	Boston, Mass	Oct. 5, 1858.
20835	Steam-alarm and safety apparatus	S. W. Warren	Brooklyn, N. Y	July 6, 1858.
21000	Steam, apparatus for distributing	Robert Hale	Roxbury, Mass	July 27, 1858.
	Steam-boiler furnaces. (See Class V, letter F)			
21237	Steam-cock	J. L. Winslow, assignor to J. N. Winslow.	Westbrook, Me	Aug. 17, 1858.
21276	Steam-cock	R. Ross and W. Holland	Philadelphia, Pa	Aug. 24, 1858.
21332	Steam-cock	Albert Fuller	Cincinnati, Ohio	Aug. 31, 1858.
19969	Steam-generator	George Scott, assignor to Scott, Todd, & Co.	Philadelphia, Pa	April 13, 1858.
21788	Steam-generator	F. C. Warlich	Kentishtown, England	Oct. 12, 1858; England, March 9, 1858.
22306	Steam-generator	Robert E. Rogers	Philadelphia, Pa	Dec. 14, 1858.
21489	Steam-hammer	Patrick Danvers	New York, N. Y	Sept. 14, 1858.
21047	Steam-heating apparatus	Thomas Gordon, assignor to Charles H. Bullard.	Trenton, N. J	July 27, 1858.
19604	Steam, method of generating, in combination with atmospheric air as a motive power.	James Black, assignor to Scott, Todd, & Co.	Philadelphia, Pa	Mar. 9, 1858.
20514	Steam-power metre	George Schuh	Madison, Ind	June 8, 1858.
21468	Steam-pressure and water indicator	William C. Grimes, assignor to David Matthew.	Philadelphia, Pa	Sept. 7, 1858.
20963	Steam-stove	J. L. Sutton	Norristown, Pa	July 20, 1858; reissued Dec. 28, 1858.
21472	Steam-trap	J. W. Hoard, assignor to himself and G. B. Wiggin.	Providence, R. I	Sept. 7, 1858.
22170	Steam-trap	Frank Douglas	East Liverpool, Ohio	Nov. 30, 1858.
19757	Steam-trap, balance	William M. Davis	Philadelphia, Pa	Mar. 30, 1858.
21183	Steam trip-hammer, operating	J. S. Bonney and C. W. Willard	Hanson, Mass Bridgewater, Mass	Aug. 17, 1858.
	Steam vessels, smoke-stack for. (See Class V, letter S)			
	Steam-warming apparatus. (See Class V, letter W.)			
21694	Steam water-tank	S. H. Yocum and James O'Byrne	Shelbyville, Ind	Oct. 5, 1858.
21366	Valve-cock	G. R. and H. S. Robinson	Clinton, Mass	Aug. 31, 1858.
21510	Valve-cock	J. C. Macdonald	Cincinnati, Ohio	Sept. 14, 1858.
21524	Valve, combination steam	Robert Stewart	Elmira, N. Y	Sept. 14, 1858.

List of patents for inventions, 1858—CLASS VI.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19594	Valve for steam-engine	Isaac Van Doren	Somerville, N. J	Mar. 9, 1858.
21579	Valve for steam-engine, rotary	Thomas Stewart	Philadelphia, Pa	Sept. 21, 1858.
22198	Valve-gear of locomotive-engines	Charles J. C. Petersen	Davenport, Iowa	Nov. 30, 1858.
21295	Valve-gear of steam-engines	James Ferguson, assignor to himself and Lazelle, Perkins, & Co.	Bridgewater, Mass	Aug. 24, 1858.
22191	Valve-gear of steam-engines	Edward Moran	New York, N. Y	Nov. 30, 1858.
22321	Valve-gear of steam-engines	John L. Whetstone	Cincinnati, Ohio	Dec. 14, 1858.
22333	Valve-gear, slide, for oscillating-engines	William Stephens, assignor to Richard Stephens.	Old Forge, Pa	Dec. 14, 1858.
22318	Valve-gear, slide, of steam-engines	Elijah Ware	South Boston, Mass	Dec. 14, 1858.
20768	Valve-gearing for steam-engines	John F. Allen	New York, N. Y	June 29, 1858.
21433	Valve-governor for steam-engines	S. B. McCray	Grand Rapids, Mich	Sept. 7, 1858.
21535	Vave, pressure and vacuum	W. Hardy and J. Parkinson, assignors to themselves and Aaron Bates.	Philadelphia, Pa	Sept. 14, 1858.
20845	Valve-regulator	W. S. Gale, assignor to himself, A. A. Valentine, and W. H. Butler.	New York, N. Y	July 6, 1858.
19443	Valve, rotary	Thomas Richards	Plattsburg, N. Y	Feb. 23, 1858.
19570	Valve, safety	William H. Low	Albany, N. Y	Mar. 9, 1858.
21390	Valve, safety and pressure-gauge	James H. Winn	Portage, Wis	Aug. 31, 1858.
21493	Valve, slide, combination of a governor with	Richard Gornall	Baltimore, Md	Sept. 14, 1858.
19096	Valve, steam	William R. Michener	Marlboro', Ohio	Jan. 12, 1858.
20094	Valve, steam	Thomas Scott	San Francisco, Cal	April 27, 1858.
20423	Valve, steam	Henry Goulding	San Francisco, Cal	June 1, 1858.
21151	Valve, steam	George Rieseck	Pittsburg, Pa	Aug. 10, 1858.
21155	Valve, steam	W. J. Stevens	New York, N. Y	Aug. 10, 1858.
21235	Valve, steam	W. S. Mackintosh and S. Wadsworth, assignors to Cridge, Wadsworth, & Co.	Pittsburg, Pa	Aug. 17, 1858.
19484	Valve, steam, eccentric, for operating	Benjamin Carley	Paterson, N. J.	Mar. 2, 1858.
19203	Valve, steam throttle	James W. Osgood	Columbus, Ohio	Jan. 26, 1858.
20388	Valve, steam trap	J. W. Hoard, assignor to himself and G. B. Wiggin.	Providence, R. I	May 25, 1858.
19933	Valve, throttle	T. S. La France	Elmira, N. Y	April 13, 1858.

19119	Valves and passages in cylinders of steam-engines, arrangement of.	E. D. Barrett	Cincinnati, Ohio	Jan. 19, 1858.
21813	Valves, cut-off, for steam-engines	Benjamin Bunce	New York, N. Y.	Oct. 19, 1858.
21300	Valves, cut-off, of steam-engines	J. Jackman, jr., assignor to himself and E. H. Ashcroft.	Newburyport, Mass	Aug. 24, 1858.
21682	Valves for steam-engines	Joseph Jobin	St. Mandi, France	Oct. 5, 1858; France, April 13, 1858.
21668	Valves for steam-engines, gearing of cut-off	P. W. Gates, D. R. Fraser, and Thomas Chalmers.	Chicago, Ill	Oct. 5, 1858.
19640	Valves in steam-engines, mode of operating	T. S. Jamieson	Alexandria, Va	Mar. 16, 1858.
22192	Valves of steam-engines	Alden R. Morrill	Northfield, Vt.	Nov. 30, 1858.
22322	Valves of steam-engines	H. D. Wicks	Flint, Mich	Dec. 14, 1858.
22320	Valves of steam-engines, apparatus for operating	Norman W. Wheeler	Brooklyn, N. Y	Dec. 14, 1858.
22164	Valves of steam-engines, cut-off	I. M. Coleman	Milwaukie, Wis	Nov. 30, 1858.
21455	Valves of steam-engines, operating	H. Uhry and H. A. Luttgens	Paterson, N. J	Sept. 7, 1858.

CLASS VII.—NAVIGATION AND MARITIME IMPLEMENTS, *comprising all vessels for conveyance on water, their construction, rigging and propulsion, diving-dresses, life-preservers, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19659	Anchor	William Williams	St. Louis, Mo	Mar. 16, 1858.
19638	Anchor and life-preserver, combined, floating	Joseph Humphries	Washington, D. C	Mar. 16, 1858.
21298	Anchor-balls	H. W. Harkness, assignor to himself and J. W. Bliss.	Bristol, Conn	Aug. 24, 1858.
22432	Block, spring-tackle	Obed Hussey	Baltimore, Md	Dec. 28, 1858.
22154	Block, tackle	William B. Barnard	Waterbury, Conn	Nov. 30, 1858.
21602	Block, tackle, attachment for	George Focht	Reading, Pa	Sept. 28, 1858.
20944	Boat, canal	J. E. Gibson	Port Carbon, Pa	July 20, 1858.
21572	Boat, canal	John McCausland and Jefferson and James McCausland	Kington, N. Y Esopus, N. Y	Sept. 21, 1858.
19317	Boat, collapsible	Nathan Thompson, jr	Brooklyn, N. Y	Feb. 9, 1858; England, Dec. 3, 1857.
21979	Boat-davits, tripping-block for	Charles Perley	New York, N. Y.	Nov. 2, 1858.
	Boat, life. (See Life-boat.)			
19693	Boat, metallic	Joseph Francis	New York, N. Y.	Mar. 23, 1858.
19656	Boat, propeller canal	George W. Swartz	Buffalo, N. Y	Mar. 16, 1858.
19666	Boats, arrangement of devices for lowering and detaching.	Henry De Veuve	Galveston, Texas	Mar. 16, 1858.
21201	Boats, canal, construction of	Anson Judson	Unadilla, N. Y	Aug. 17, 1858.
20308	Boats, moulding frame for the construction of	Nathan Thompson, jr.	Brooklyn, N. Y	May 18, 1858.
19346	Boats, propelling canal	Herman Camp	Dunkirk, N. Y	Feb. 16, 1858.
19403	Cable-stopper	William H. Bridge	Boston, Mass.	Feb. 23, 1858.
21135	Cable-stopper	Peter H. Jackson	New York, N. Y.	Aug. 10, 1858.
19131	Chain-cable stopper	John E. Crane	Lowell, Mass	Jan. 19, 1858.
21296	Chain-stopper	William H. Gray, assignor to himself and Albert G. Brown.	Dover, N. H.	Aug. 24, 1858.
19785	Diving-bell	Benjamin Maillefert	Astoria, N. Y	Mar. 30, 1858.
	Dry-docks and marine railways, adjustable cradle for. (See Class IX, letter D.)			
19949	Fog-bell	A. C. Rand, and R. R. Johnson	Buffalo, N. Y	April 13, 1858.
19516	Grapples, submarine	Thomas Sheehan	Dunkirk, N. Y	Mar. 2, 1858.

21949	Harpoon	George Doyle	Provincetown, Mass	Nov. 2, 1858.
19363	Harpoon and lance	H. W. Harkness	Bristol, Conn	Feb. 16, 1858.
21278	Harpoon-lance	Nathan Scolfield	Norwich, Conn	Aug. 24, 1858.
21879	Hook, self-mousing	J. R Henshaw	Middletown, Conn	Oct 26, 1858.
20072	Life and treasure buoy	Francis D. Lee	Charleston, S. C	April 27, 1858.
22258	Life-berth for vessels	James P. McLean	New York, N. Y	Dec. 7, 1858.
19977	Life-boat	Leverett Ball	Auburn, N. Y	April 20, 1858.
20374	Life-boat	A. L. Shears	Omri, Wis	May 25, 1858.
21462	Life-boat constructed of mattresses	Jabez M. Woodward	New York, N. Y	Sept. 7, 1858.
21570	Life-boat, expansible float for	Charles Legros	New York, N. Y	Sept. 21, 1858.
21776	Life-preserver	Hiram Palmer	Augusta, Mich	Oct. 12, 1858.
19989	Life-preserving bucket-raft	Charles French	Jersey City, N. J	April 20, 1858.
19618	Life-preserving buoy	Benjamin Burling	Buffalo, N. Y	Mar. 16, 1858.
19632	Life-preserving float	George W. Hamilton, assignor to himself and Oliver P. Bower.	Watkins, N. Y	Mar. 16, 1858.
19350	Life-preserving mattress	C. P. Crossman & E. M. Quimby	Warren, Mass	Feb. 16, 1858.
19593	Life-preserving raft of buoyant mattresses	W. Urquhart	New York, N. Y	Mar. 9, 1858.
19216	Life-preserving raft, canvas sheets connected with.	Lorenzo Taggart	Philadelphia, Pa	Jan. 26, 1858. Reissued March 2, 1858.
22467	Life-preserving trunk	Oliver E. Woods	Philadelphia, Pa	Dec. 28, 1858.
22021	Life-preserving vests	T. A. Delano	New York, N. Y	Nov. 9, 1858.
22175	Life-raft, extensible	Calvin Furbush	Kittery, Me	Nov. 30, 1858.
20354	Marine alarm and fog-signal	Leon Lewenberg	New York, N. Y	May 25, 1858.
20328	Paddle, reciprocating	P. C. Clark	Reading, Penn	May 25, 1858.
19482	Paddle-wheel	Andrew Buchanan	New York, N. Y	Mar. 2, 1858.
20096	Paddle-wheel	Nathan Smith	Berwick, La	April 27, 1858.
20676	Paddle-wheel	George Wingate	Philadelphia, Penn	June 22, 1858.
21826	Paddle-wheel	H. Ehrhart	Muscatine, Iowa	Oct. 19, 1858.
21892	Paddle-wheel	Richard B. Locke	Stapleton, N. Y	Oct. 26, 1858.
21432	Paddle-wheel propellers	John May	Columbus, Ga	Sept. 7, 1858.
20606	Propeller	C. F. Gardiner, assignor to himself and H. D. Gardiner.	East Boston, Mass	June 15, 1858.
20744	Propeller	William Thurber	Olean, N. Y	June 29, 1858.
20953	Propeller	D. E. Merick	Cleveland, Ohio	July 20, 1858.
22016	Propeller	George R. Comstock	Little Falls, N. Y	Nov. 9, 1858.
22209	Propeller	Washington Van Dusen	Philadelphia, Penn	Nov. 30, 1858.
20889	Propeller, boat	Mortimer Nelson	New York, N. Y	July 13, 1858.
22373	Propeller, buoyant	James Montgomery	New York, N. Y	Dec. 21, 1858.
21378	Propeller for boats	Le Grand C. St. John	Buffalo, N. Y	Aug. 31, 1858.

List of patents for inventions, 1858—CLASS VII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22422	Propeller for boats	James Hamilton	New York, N. Y	Dec. 28, 1858.
20862	Propeller for canal boats	Abner Burbank	Buffalo, N. Y	July 13, 1858.
22346	Propeller for life-boats	Mortimer M. Camp	New Haven, Conn	Dec. 21, 1858.
21825	Propeller, marine	John Eaton	Belleville, Canada	Oct. 19, 1858.
21650	Propeller, screw	Oliver Byrne and I. G. Elliott	New York, N. Y	Oct. 5, 1858.
22417	Propeller, steering	H. E. Fessel	Chicago, Ill	Dec. 28, 1858.
20332	Propeller, valve	Aaron Colton	Le Roy, N. Y	May 25, 1858.
20751	Propellers, attaching and housing	William Webster	Jefferson county, W. T	June 29, 1858.
19887	Propellers, coupling of shafting for	S. Wilmarth S. L. Hay and D. N. B. Coffin, jr	Charlestown, Mass Reading, Mass Boston, Mass	April 6, 1858.
22266	Propellers, means for securing the arms to the hubs of.	Horatio O. Perry, assignor to himself and Sydney Sheppard.	Buffalo, N. Y	Dec. 7, 1858.
22431	Propelling and steering apparatus	Samuel Huse and Samuel Huse, jr	Chicago, Ill	Dec. 28, 1858.
19851	Row-lock	James H. Hills	Burlington, Vt	April 6, 1858.
19084	Safe, marine	Josiah Foster	Sandwich, Mass	Jan. 12, 1858.
19067	Sails, reefing	Joseph F. Boyd	Charlestown, Mass	Jan. 12, 1858.
19850	Sails, reefing	L. Higgins and A. Brown	Jersey City, N. J New York, N. Y	April 6, 1858.
19225	Sails, top, reefing	Donald McLean, assignor to himself, Sam'l Green, and Nathan Ames.	Boston, Mass	Jan. 26, 1858.
22097	Ship building	Daniel Vrooman	Hudson, Ohio	Nov. 16, 1858.
20657	Ships and other vessels, air-cells for giving buoyancy to.	Samuel Nowlan.	New York, N. Y	June 22, 1858.
21609	Ships, balance-sail rig for	John Lewis	Elizabeth City, N. J	Sept. 28, 1858; England, Sept. 4, 1855.
19737	Ship's bulkhead	C. Maliphant, assignor to Thomas West	New York, N. Y	Mar. 23, 1858.
20131	Ship's capstan	James R. Taylor, assignor to Wm. Skiddy	New York, N. Y	April 27, 1858.
19043	Ships, construction of	John Reeves	Brooklyn, N. Y	Jan. 5, 1858.
20233	Ship's lower sails in courses, working	Samuel Very, jr	Salem, Mass	May 11, 1858.
20877	Ships, method of coppering the interior of, to protect them from lightning.	R. W. Haskins	Buffalo, N. Y	July 13, 1858.

21134	Ship's windlass	Peter H. Jackson	New York, N. Y	Aug. 10, 1858.
19332	Signal lantern	Daniel Ammen	U. S Navy	Feb. 16, 1858.
20321	Sounding apparatus	Richard F. Bridwell	St. Louis, Mo	May 25, 1858.
21919	Steamers, ocean, construction of	Ross & Thomas Winans	Baltimore, Md	Oct. 26, 1858.
19139	Steamers, ships, &c., table-rack for	John Franz	Boston, Mass	Jan. 19, 1858.
19813	Steering-apparatus	Isaac Moore, assignor to himself & Francis N. Gove.	Brooklyn, N. Y	Mar. 30, 1858.
20239	Steering-apparatus	S. B. Cram and C. Weed, assignors to S. B. Cram.	Boston, Mass	May 11, 1858.
21210	Steering-apparatus	Franklin A. Morley	Sodus Point, N. Y	Aug. 17, 1858.
22453	Steering-apparatus	Jesse Reed	Marshfield, Mass	Dec. 28, 1858.
	Sub-marine deposits, method of removing. (See Class IX, letter R.)			
21852	Sub-marine explorer	Van Buren Reyerson	New York, N. Y	Oct. 19, 1858.
21906	Tiller-rope protector	John Sample	Meadville, Miss	Oct. 26, 1858.
22088	Vessels, centre-board for	Jesse F. Potts	Apalachicola, Fla	Nov. 16, 1858.
21917	Vessels, hulls of steam	Ross & Thomas Winans	Baltimore, Md	Oct. 26, 1858.
20673	Vessels, masting and rigging	William Webster	Jefferson county, W. T	June 22, 1858.
19841	Vessels, means for protecting tiller-ropes of, from fire.	W. Y. Gill	Henderson, Ky	April 6, 1858.
21534	Vessels, mode of launching	Gurdon Conkling, assig'r to W. T. Conkling	Conklingville, N. Y	Sept. 14, 1858.
20426	Vessels, navigable, buoyant life-preserving state-rooms for.	Henry Hallock	Brookhaven, N. Y	June 1, 1858.
19996	Vessels, navigable, centre-boards of	Benjamin Joline	Westfield, N. Y	April 20, 1858.
22002	Vessels, rudder for	Silas Yerkes, jr., assignor to himself and George Yerkes.	Philadelphia, Pa.	Nov. 2, 1858.
19047	Vessels, sea-going steam, lightening	John C. F. Salomon and George W. Morris.	Baltimore, Md	Jan. 5, 1858.
21918	Vessels, steam	Ross and Thomas Winans	Baltimore, Md.	Oct. 26, 1858.
21920	Vessels, steam, connexion of steam-engines with propellers of.	Ross and Thomas Winans	Baltimore, Md.	Oct. 26, 1858.
	Vessels, steam, smoke-stack for. (See Class V, letter S.)			
20578	Vessels, sunken, apparatus for raising	Milo Osborn	Osbornville, Ohio	June 15, 1858.
21532	Vessels, sunken, apparatus for raising	Aldridge Winham	New York, N. Y	Sept. 14, 1858.
19500	Vessels, sunken, method of raising	F. G. Ford and P. Plant	New York, N. Y Washington, D. C	Mar. 2, 1858.
20287	Vessels, worming, parcelling and serving the rigging of, machine for.	Patrick McLaughlin	Camden, Me	May 18, 1858.
22457	Water, apparatus for walking on the	Henry R. Rowlands	Boston, Mass	Dec. 28, 1858.

List of patentees for inventions, 1858—CLASS VII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19787	Windlass	Joseph P. Manton	Providence, R. I	Mar. 30, 1858.
20427	Windlass	D. D. Hammond	Duxbury, Mass	June 1, 1858.
20555	Windlass	John Harvey	Carmel, Me	June 15, 1858.
21280	Windlass	Samuel N. Smith	New York, N. Y	Aug. 24, 1858.

CLASS VIII.—MATHEMATICAL, PHILOSOPHICAL, AND OPTICAL INSTRUMENTS, *including clocks, chronometers, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21621	Adding numbers, machine for	John B. Newbrough	St. Louis, Mo	Sept. 28, 1858.
21236	Addometer	Leonard N. Nutz, assignor to Irwin B. Randle and Elias Hibbard.	Alton, Ill	Aug. 17, 1858.
21243	Addometer	Jabez Burns	New York, N. Y	Aug. 24, 1858.
21506	Altitude, sun's, heliographic instrument for taking the.	John Oakes	New York, N. Y	June 8, 1858.
22396	Altitudes, &c., instrument for measuring	George C. Ayling, assignor to himself and H. A. Ayling.	Boston, Mass	Dec. 21, 1858; antedated Aug. 17, 1858.
21921	Arithmetical proof rule	Samuel S. Young	Eaton, Ohio	Oct. 26, 1858.
21941	Arithmometer for addition	O. L. Castle	Upper Alton, Ill	Nov. 2, 1858.
22075	Astronomical instrument	Henry Glover	New York, N. Y	Nov. 16, 1858.
22125	Attraction of the needle, local, method of neutralizing.	Calvin Kline	Brooklyn, N. Y	Nov. 23, 1858.
21435	Callipers and dividers	Joseph D. Moon	Chelsea, Mass	Sept. 7, 1858.
21865	Chronometric escapement	Thomas Morison, assignor to A. S. Solomons.	New York, N. Y	Oct. 19, 1858.
	Clock, burglar's alarm. (See Class XXII, letter A.)			

19519	Clock, calendar	Holly Skinner	Huron, Ohio	Mar. 2, 1858.
19472	Clock-movements, lathe for cutting tenons for.	Russell Peck, assignor to himself and G. H. Wooster.	Bristol, Conn	Feb. 23, 1858.
19351	Clock, public	A. D. Crane	Boston, Mass	Feb. 16, 1858.
22413	Clocks, compensating pendulum for	Wright L. Coffinberry	Grand Rapids, Mich	Dec. 28, 1858.
20786	Clocks, registering attachment for	Stanislaus Fournier	New Orleans, La	July 6, 1858.
22388	Dynamometer	William Tucker	Blackstone, Mass.	Dec. 21, 1858.
19058	Dividers, mathematical	John E. Earle, assignor to himself and Samuel Shepherd.	Leicester, Mass	Jan. 5, 1858.
19589	Dividers, mathematical	Anton Schaeffer	New York, N. Y	Mar. 9, 1858.
21041	Drawing-instrument	W. W. Withes	Philadelphia, Pa	July 27, 1858.
19642	Electric currents, apparatus for regulating and measuring the intensity of.	Joseph Lacassagne and Rudolphe Thiers.	Lyons, France	Mar. 16, 1858.
	Electricity, issue of gas from burners, device for regulating by. (See Class V, letter B.)			
19766	Electricity, method of lighting gas by	Samuel Gardiner, jr.	New York, N. Y.	Mar. 30, 1858.
21781	Electricity, method of lighting street lamps by	C. W. Smith	Evans, N. Y	Oct. 12, 1858.
19460	Electro-galvanic batteries, method of lighting gas by.	Archelaus Wilson	Boston, Mass	Feb. 23, 1858.
19176	Electro-galvanic batteries, method of registering the speed back and forward, and distances passed over by railroad trains by means of.	Lewis Troost, assignor to John A. M. Battle.	Mobile, Ala	Jan. 19, 1858. England, June 15, 1857; France, June 18, 1857.
19132	Electro-magnetic batteries to car-brakes, application of.	S. D. Carpenter	Madison, Wis	Jan. 19, 1858.
21105	Electo-magnetic engine	Frederick Yeiser	Lexington, Ky	Aug. 3, 1858.
22071	Electro-magnetic fire-alarm apparatus	Moses G. Farmer	Salem, Mass	Nov 16, 1858.
20970	Electro-magnetic house-alarm	William Whiting	Roxbury, Mass	July 20, 1858.
19042	Electro-magnetic speed-governor	George M. Phelps	Troy, N. Y	Jan. 5, 1858.
22347	Ellipsograph	E. G. Chormann	Philadelphia, Penn	Dec. 21, 1858.
19759	Galvanic batteries, device for preventing corrosion of the binding screws in.	George Doyle	Ottawa, Ill	Mar. 30, 1858.
19245	Galvanic batteries, method of attaching the electrodes to the poles of.	Joseph Elmendorf	Penn Yan, N. Y	Feb. 2, 1858.
19209	Galvanic battery	Ebenezer Seaver	Boston, Mass	Jan. 26, 1858.
22029	Galvano-electric machine	Joseph R. Palmenberg	New York, N. Y	Nov. 9, 1858.
19392	Gravimotometer	J. W. Wetmore	Erie, Penn	Feb. 16, 1858.
20326	Hygrometers, device for actuating the index in.	C. L. Clark	Rochester, N. Y	May 25, 1858.
22378	Levelling instrument, self-adjustable	Joseph Redhead	Woodville, Miss	Dec. 21, 1858.

List of patents for inventions, 1858—CLASS VIII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19819	Lightning-conductors	Oren White, assignor to Henry C. Janes	Racine, Wis	Mar. 30, 1858.
20916	Lightning-rods, device for securing	Victor Schrage	Cincinnati, Ohio	July 13, 1858.
21905	Lightning-rods, method of insulating and supporting.	E. C. Rogers	Boston, Mass	Oct. 26, 1858.
22188	Lightning-rods, supporting insulator for	N. N. McLeod	St. Louis, Mo	Nov. 30, 1858.
19379	Magnets, receiving	Nathaniel Parks	Rome, N. Y.	Feb. 16, 1858.
22411	Measure, grain	Job Brown	Lawn Ridge, Ill	Dec. 28, 1858.
20186	Measurer, grain, self-regulating	George W. Atkins	Milton, Del.	May 11, 1858.
22241	Measuring and recording by the tape, method of.	E. A. Preston	Battle Creek, Mich.	Dec. 7, 1858.
19031	Measuring the superficies of boards, machine for.	Seneca C. Kennard	South Newmarket, N. H.	Jan. 5, 1858.
19153	Pendulum, compound	Charles W. Rice and John E. Harrington	Worcester, Mass. Millbury, Mass	Jan. 19, 1858.
19479	Pendulum, compound	Dana Bickford	Westerly, R. I.	Mar. 2, 1858.
19798	Pendulum power, applying	Andrew Slevin	Ann Arbor, Mich.	Mar. 30, 1858.
19091	Plotting instrument	Charles R. Iliff	Falmouth, Ky.	Jan. 12, 1858.
19817	Plumb and level indicator, attaching the plumb line to a.	John L. Rowe, assignor to Frederick Stevens	New York, N. Y.	Mar. 30, 1858.
20356	Protractors	Josiah Lyman	Lenox, Mass	May 25, 1858.
19062	Quadrants, artificial horizon for, method of determining the.	James C. Lane, assignor to himself and T. H Barnes.	Brooklyn, N. Y	Jan. 5, 1858.
22081	Registering speed of railroad trains, method of.	Charles T. Liernur	Mobile, Ala.	Nov. 16, 1858.
21101	Registering the motion of machinery, method of.	S. L. Wiegand	Philadelphia, Pa.	Aug. 3, 1858.
19105	Rule, carpenter's	L. C. Stephens	Pine Meadow, Conn	Jan. 12, 1858.
20943	Rule, carpenter's	William O. C. Fritschler	Brooklyn, N. Y.	July 20, 1858.
21784	Rule for describing polygonal forms	Meriwether Jeff. Thompson	St. Joseph, Mo.	Oct. 12, 1858.
20431	Signal-lantern	William Howard	Flushing, N. Y.	June 1, 1858
20706	Signal-lights, electric	S. Gardiner, jr., and L. Blossom	New York, N. Y	June 29, 1858.
21656	Signal-machine, fog	Jacob D. Custer	Norristown, Pa.	Oct. 5, 1858.
	Signalizer, railway bridge. (See Class IX, letter R.)			
	Signals, locomotive. (See Class VI, letter L.)			

21688	Signals on railroads, mode of transmitting magnetic.	Henry Maule	Philadelphia, Pa	Oct. 5, 1858.
20402	Signals, semaphoric, mechanism for operating	William Boyd	Washington, D. C.	June 1, 1858.
20946	Spectacle-frames, joint for	G. N. Cummings	Hartford, Conn.	April 27, 1858.
	Speed-indicator and recorder for railroad cars. (See Class X, letter C.)			
21982	Surveying instruments, method of adjusting the plummet without moving the tripod in.	Charles A. Saxe	Philadelphia, Pa.	Nov. 2, 1858.
20908	Surveyor's graphodometer, automatic mechanism for operating the.	J. M. Wampler	Baltimore, Md	July 13, 1858.
19357	Surveyor's protractor	John A. Finn	Simpson county, Ky.	Feb. 16, 1858.
20915	Surveyor's tripod, head for	W. J. Young	Philadelphia, Pa.	July 13, 1858.
19027	Telegram keys, method of operating	John J. Hayden	Rising Sun, Ind	Jan. 5, 1858.
19278	Telegraph cable, apparatus for paying out	Louis Brauer, assignor to himself, Louis G. Bandebury and Joseph B. Stewart.	Washington, D. C.	Feb. 2, 1858.
21371	Telegraph cable, apparatus for paying out	George Scott	Wiscasset, Me.	Aug. 31, 1858.
21634	Telegraph cable, method of laying submarine	Owen G. Warren	New York, N. Y.	Sept. 28, 1858.
21629	Telegraph cable, method of laying submarine	Samuel Samuels	Brooklyn, N. Y	Sept. 28, 1858.
21492	Telegraph insulators	Moses G. Farmer and John M. Batchelder	Salem, Mass Cambridge, Mass.	Sept. 14, 1858.
20698	Telegraph, pantographic	Giovanni Caselli	Florence, Italy	June 29, 1858.
21329	Telegraph wire, method of sending and receiving messages simultaneously over the same.	Moses G. Farmer	Salem, Mass	Aug. 31, 1858.
	Telegraph wires, composition for coating (See Class IV, letter C.)			
19116	Telegraphic cables, construction of	John Absterdam	Boston, Mass	Jan. 19, 1858.
22082	Telegraphic instruments	R. Kendrick and A. W. Akerson	Cambridgeport, Mass	Nov. 16, 1858.
21132	Telegraphic instruments	George B. Hicks	Cleveland, Ohio	Aug. 10, 1858.
20982	Telegraphic machine, self-adjusting and embossing.	E. F. Barnes	Brooklyn, N. Y	July 27, 1858.
21024	Telegraphic machines, printing, mode of operating the mechanism of.	T. and J. Reeve and S. M. Tyler.	Brooklyn, N. Y	July 27, 1858.
20930	Telegraphing magnets easy of adjustment, combination of electro and permanent magnets to render.	E. F. Barnes	Brooklyn, N. Y	July 20, 1858.
20348	Thermostat	Simeon Holton, jr	Middlebury, Vt.	May 25, 1858.
21020	Time, combination of the needle and sun-dial to ascertain.	C. R. M. Pohlé.	Richmond, Va.	July 27, 1858.
20201	Time-keeper	Henry C. Fay	Troy, N. Y	May 11, 1858.

List of patents for inventions, 1858—CLASS VIII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20252	Time-keeper, escapement for	Samuel Carpenter	Flushing, N. Y.	May 18, 1858.
21146	Time-keeper, escapement for	Eugene Paulus	Philadelphia, Penn	Aug. 10, 1858.
21738	Time-keeper, escapement for	Josiah Bishop	Austin, Texas	Oct. 12, 1858.
21425	Time-keeper, escapement of	Joseph Jewnet	Meadville, Penn	Sept. 7, 1858.
22428	Time-keepers, method of adjusting the tripper to escapement-lever of.	Edwin B. Horn	Boston, Mass	Dec. 28, 1858.
22110	Time-keepers, method of regulating the winding of.	Jonathan Dillon	Washington, D. C	Nov. 23, 1858.
19744	Time-keepers, regulators for	Dara Bickford	Westerly, R. I.	Mar. 30, 1858.
22305	Time-pieces, escapement for	George P. Reed	Roxbury, Mass.	Dec. 14, 1858.
21895	Transit instrument	R. C. Matthewson	San Francisco, Cal	Oct. 26, 1858.
19966	Watch-cases	Elihu Bliss, assignor to Baldwin & Co	Newark, N. J	April 13, 1858; reissued Nov. 23, 1858.
19972	Watch-cases	John F. Watson, assignor through mesne assignments to Baldwin & Co	Middlesex Co., England. Newark, N. J	April 13, 1858; England, June 16, 1857; reiss'd July 27, 1858.
20554	Watch-cases	J. M. Durand	Newark, N. J	June 15, 1858.
22254	Watch-cases	Auguste Lachat	New York, N. Y.	Dec. 7, 1858.
20942	Watch-cases, making	Edwin Field	Providence, R. I	July 20, 1858.
22397	Watch-faces	Samuel Baldwin, assignor to Baldwin & Co.	Newark, N. J	Dec. 21, 1858.
20491	Watch, stop	Charles E. Jacot	New York, N. Y.	June 8, 1858.
20403	Watches, attachment for, to ascertain the time without looking at the watch.	M. W. Baldwin	Philadelphia, Penn.	June 1, 1858.
20888	Watches, escapement of	Jacob Muma	Hanover, Penn	July 13, 1858.
22174	Watches, device to prevent injury from rupture of the main-spring of.	David B. Fitts	Holliston, Mass	Nov. 30, 1858.

CLASS IX.—CIVIL ENGINEERING AND ARCHITECTURE, *comprising works on rail and common roads, bridges, canals, wharves, docks, rivers, weirs, dams, and other internal improvements, buildings, roofs, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Beams, connecting rigidly the ends of. (See Class II, letter M.)			
22472	Blasting or removing submarine bodies, method of.	Samuel Eakins, assignor to himself and M S. Wickersham.	Philadelphia, Penn	Dec. 28, 1858.
19170	Blind fixtures, window	Asahel G. Batchelder, assignor to Hiram E Pearson and Alden B. Butterfield.	Lowell, Mass	Jan. 19, 1858.
21292	Blind slats, machine for setting the staples in	James Wyman	Schaghticoke, N. Y	Aug. 24, 1858.
19795	Brake, railroad	John C. Fr. Salomon	Baltimore, Md	Mar. 30, 1858.
20396	Brake, railroad	Joseph Harris	Allegheny, Penn	May 25, 1858.
22280	Brake, railroad	William Edge	Downingtown, Penn	Dec. 14, 1858.
21120	Brakes to hand trucks, applying	C. L. Daboll	New London, Conn	Aug. 10, 1858.
20105	Breakwaters, &c., frames or caissons of	Edward H. Tracy	New York, N. Y	April 27, 1858.
20414	Bridge	Thomas Durden	Montgomery, Ala	June 1, 1858.
21203	Bridge	Stephen H. Long, U. S. A	Louisville, Ky	Aug. 17, 1858.
21388	Bridge	L. E. Truesdell	Warren, Mass	Aug. 31, 1858.
22106	Bridge, truss	John C. Briggs	Concord, N. H	Nov. 23, 1858.
20987	Bridge, truss, bearing blocks of	Albert D. Briggs	Springfield, Mass	July 27, 1858.
20082	Bridge, truss, metallic shoe for	D. H. Morrison	Dayton, Ohio	April 27, 1858.
19573	Bridges, &c., constructing framing of	William McKibbin	San Francisco, Cal	Mar. 9, 1858.
20204	Canals, &c., stop-gate for	Joseph W Sprague	Rochester, N. Y	Nov. 30, 1858.
19682	Ceiling, fire-proof	John B. Cornell	New York, N. Y	Mar. 23, 1858.
19375	Closet, water	Francis McGhan	Washington, D. C	Feb. 16, 1858.
20142	Closet, water	William S. Carr	New York, N. Y	May 4, 1858.
21294	Closet, water	Isaac Edelman, assignor to G. W. Edelman, jr.	Philadelphia, Penn	Aug. 24, 1858.
21407	Closet, water	George Blanchard	New York, N. Y	Sept. 7, 1858.
21734	Closet, water	Frederick H. Bartholomew	New York, N. Y	Oct. 12, 1858.
19030	Conduits, grab for clearing	James Ingram	New York, N. Y	Jan. 5, 1858.
19646	Door-register	John G. Miller	Swanton, Md	Mar. 16, 1858.
21754	Door, self-closing	John C. Harkness	Washington, D. C	Oct. 12, 1858.
19673	Door-sill, self-adjusting	George C. Bigelow	Worcester, Mass	Mar. 23, 1858.
19217	Doors, weather-strip for	Joseph Tinney	Westfield, N. Y	Jan. 6, 1858.

List of patents for inventions, 1858—CLASS IX.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20590	Doors, weather-strip for	M. M. Shellaberger	Joliet, Ill	June 15, 1858.
22052	Dredging-crane	George Wood and John King, assignors to themselves and William Lawrence.	Philadelphia, Penn	Nov. 9, 1858.
19908	Dredging-machine	E. B. Bishop	Shreeveport, La	April 13, 1858.
21613	Dredging-machine	Abel Minard	New York, N. Y	Sept. 28, 1858.
22458	Dredging-machine	James Stewart	New London, Conn	Dec. 28, 1858.
21140	Drill, rock	William Lewis	Harrisburg, Penn	Aug. 10, 1858.
21205	Drill, rock	W. H. Loomis and John Hewitt	St. Louis, Mo	Aug. 17, 1858.
22046	Drill, rock	L. White and J. T. Bumgarner	Davenport, Iowa	Nov. 9, 1858.
20563	Driver, post and pile	Oliver Hyde	Benicia, Cal	June 15, 1858.
22317	Dry docks and marine railways, adjustable cradle for.	Washington Van Dusen	Philadelphia, Penn	Dec. 14, 1858.
20912	Dumping coal-bucket, self	John Wüst	Philadelphia, Penn	July 13, 1858.
20155	Eave-troughs, braces of	W. H. Henderson	Franklin, Ia	May 4, 1858.
20511	Excavating-machine	Nathan Saunders and F. T. Sherman	Chicago, Ill	June 8, 1858.
21206	Excavating-machine	William R. Maffet	Wilkesbarre, Penn	Aug. 17, 1858.
19565	Excavating post-holes, machine for	William K. Johnston	Rock Island, Ill	Mar. 9, 1858.
19104	Excavator	J. D. Smith	Panton, Vt	Jan. 12, 1858.
22279	Excavator	S. S. Curtis	Croton Corners, N. Y	Dec. 14, 1858.
19353	Fence, field	John Drown	Huron, N. Y	Feb. 16, 1858.
19491	Fence, field	Peter S. Carhart	Collamer, N. Y	Mar. 2, 1858.
19566	Fence, field	Jones H. Jones and Newton W. Smith	Lebanon, Ohio	Mar. 9, 1858.
19873	Fence, field	Benning Rowells	Ossian, N. Y	April 6, 1858.
19990	Fence, field	Benedict Gabriel	Elmira, N. Y	April 20, 1858.
20071	Fence, field	E. E. Lewis	Geneva, N. Y	April 27, 1858.
20599	Fence, field	H. S. Wentworth	Norvell, Mich	June 15, 1858.
20560	Fence, field	Thomas Hoge	Waynesburgh, Penn	June 15, 1858.
21074	Fence, field	Cornelius Horton	Phelps, N. Y	Aug. 3, 1858.
21073	Fence, field	D. M. Heikes	Franklin Township, Penn	Aug. 3, 1858.
21843	Fence, field	John B. Mitchell	Wayne, N. Y	Oct. 19, 1858.
22202	Fence, field, brace-post for	Cornelius Quackenbush	Huron, N. Y	Nov. 30, 1858.
20005	Fence, field, portable	L. S. Robison	Gypsum, N. Y	April 20, 1858.

19724	Fence, field, post for	H. G. Seekins	Elyria, Ohio	Mar. 23, 1858.
20400	Fence, lattice, iron	Albert Betteley	Boston, Mass	June 1, 1858.
21064	Fence, metallic	William Bush	Harrisburg, Pa	Aug. 3, 1858.
21315	Fence, portable	Robert J. Brown	Perry, Pa	Aug. 31, 1858.
21260	Fence, portable field	John B. Johnson	Linden, Ind	Aug. 24, 1858.
21529	Fence, portable field	A. B. and M. Vandemark	Phelps, N. Y	Sept. 14, 1858.
21549	Fence, portable field	Peter S. Carhart	Collamer, N. Y	Sept. 21, 1858.
19863	Fence-post	Rensselaer Merrill	Elmira, N. Y	April 6, 1858.
19434	Fences, field, device for connecting the panels of.	Rensselaer Merrill	Elmira, N. Y	Feb. 23, 1858.
19159	Fences, field, method of connecting the panels of.	William D. Sheldon	Huron, N. Y	Jan. 19, 1858.
21037	Fences, field, triangular brace for locking the panels of.	Charles Van De Mark	Oak's Corner, N. Y	July 27, 1858.
21459	Fences, wire, method of allowing for expansion and contraction of.	Olly Williams	St. Louis, Mo	Sept. 7, 1858.
19174	Floors, marquetry, construction of	Benjamin H. Shadaker, assignor to Edwin Bender.	Philadelphia, Pa	Jan. 19, 1858.
21526	Gate	William Tobey	Naples, N. Y	Sept. 14, 1858.
21645	Gate	Silas Allington	West Dresden, N. Y	Oct. 5, 1858.
19499	Gate, farm	Andrew Dietz	Raritan, N. J	March 2, 1858.
21785	Gate, farm	Joseph A. Treat	Tallmadge, Ohio	Oct. 12, 1858.
22131	Gate, farm	William Newlove	Penn Yan, N. Y	Nov. 23, 1858.
20008	Gate, farm, catch-latch for	Joseph Summers	Raleigh, Va	April 20, 1858.
20247	Gate, farm, method of opening and closing	William F. C. Beattie	Cornwall, N. Y	May 18, 1858.
22023	Gate, farm, method of opening and closing	William G. Hermance	Geneva, N. Y	Nov. 9, 1858.
21851	Gate, farm, method of opening and closing by approaching vehicles.	E. C. Rowland	Phelps, N Y	Oct. 19, 1858.
21811	Gate, farm, mode of opening and closing	W. T. Boggs	Cincinnati, Ohio	Oct. 19, 1858.
22261	Gate, farm, mode of opening and closing by approaching vehicles.	Caleb Winegar	Union Springs, N. Y	Dec. 7, 1858.
19630	Girder, wrought iron	Thomas G. Gaylord	Cincinnati, Ohio	Mar. 16, 1858.
20011	Girders, truss, metallic shoes for the braces of	T. B. White	New Brighton, Pa	April 20, 1858.
22047	Grubbing-machine	Timothy C. Wood	Charleston, Mich	Nov. 9, 1858.
21431	Hoisting and dumping apparatus	George Martz	Pottsville, Pa	Sept. 7, 1858.
19237	Journals of axles on railways, reducing the friction of.	L. J. P. De Mirimonde	Paris, France	Feb. 2, 1858. France, Aug. 23, 1856. Reissued Nov. 23, 1858.
20629	Lath, metallic	John B. Cornell	New York, N. Y	June 22, 1858.

List of patents for inventions, 1858—CLASS IX.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21118	Lath surface, metallic	John B. Cornell	New York, N. Y.	Aug. 10, 1858.
19487	Lathing, continuous metallic	Birdsell Cornell	New York, N. Y.	Mar. 2, 1858.
21386	Logs, rolling and piling, implement for	William Todd	Cherryfield, Me	Aug. 31, 1858.
21908	Mining coal, machine for	Elisha Simkins	Allegheny, Pa	Oct. 26, 1858.
19543	Mining coal, &c., machine for	C. A. Chamberlin	Allegheny, Pa	Mar. 9, 1858.
19592	Pavement, iron	Abijah Tewkesbury	East Boston, Mass	Mar. 9, 1858.
22444	Pavement, iron	Richard Montgomery	New York, N. Y	Dec. 28, 1858.
21834	Pavement, metallic side, construction of	Peter H. Jackson	New York, N. Y	Oct. 19, 1858.
20883	Pile-driver, adjustable	T. W. Loveless	Corning, N. Y	July 13, 1858.
21491	Plough, mole	Adam Defenbaugh	Walnut Run, Ohio	Sept. 14, 1858.
22194	Plough, underdrain	James and Edward Nevison	Morgan, Ohio	Nov. 30, 1858.
20352	Post, iron gate or fence	T. E. and A. and E. King	Cherry Valley, Ohio	May 25, 1858.
21750	Railing, iron, construction of	William S. Fuller	Milbury, Mass	Oct. 12, 1858.
22448	Railing, iron, construction of	James Nuttall	New Orleans, La	Dec. 28, 1858.
20797	Railing, iron, method of constructing	Luther Homes	New Orleans, La	July 6, 1858.
20419	Railroad axle, compound	Heman Gardiner	New York, N. Y	June 1, 1858.
21604	Railroad axle, compound	I. P. Garrett and Daniel Steckel	Mercer County, Pa	Sept. 28, 1858.
20871	Railroad car-box cases and pedestals	Jacob C. Geisendorff	Cincinnati, Ohio	July 13, 1858.
19705	Railroad car-coupling	Henry E. Loane	Baltimore, Md	Mar. 23, 1858.
20777	Railroad car seats and berths	Zenas Cobb	Chicago, Ill	July 6, 1858.
19124	Railroad chair	James Bishop	Owego, N. Y	Jan. 19, 1858.
20472	Railroad chair	Theodore Krausch	Susquehanna Depot, Pa	June 1, 1858.
20464	Railroad chair	E. Barnes, assignor to E. Crane	Dorchester, Mass	June 1, 1858.
20617	Railroad chair	E. R. Barnes	Brookfield, Ct	June 22, 1858.
21471	Railroad chair	Adam Hay, assignor to himself and S. W. and L. B. Miller.	Newark, N. J	Sept. 7, 1858.
21956	Railroad chair	Pliny F. Hall	Troy, N. Y	Nov. 2, 1858.
21986	Railroad chair	James H. Simmons	Painted Post, N. Y	Nov. 2, 1858.
19306	Railroad chair, manufacture of wrought iron	James Milliken	Philadelphia, Pa	Feb. 9, 1858.
20057	Railroad couplings, buffer-heads for	M. C. Gardner	Rochester, N. Y	April 27, 1858.
20040	Railroad crossings, frogs for	Eli T. Conner	East Mauch Chunk, Pa	April 27, 1858.
21942	Railroad ditching machine	Wm. Chadwick & S. I. B. Anderson	Terre Haute, Ind	Nov. 2, 1858.

21067	Railroad-frog	James M. Dick	Buffalo, N. Y	Aug. 3, 1858.
21426	Railroad-indicator	Gardner R. Lillibridge	Wayne county, Mich	Sept. 7, 1858.
19675	Railroad-rail	Leverett Ball	Auburn, N. Y	Mar. 23, 1858.
20007	Railroad-rail	E. W. Stephens & R. Jenkins	Covington, Ky	April 20, 1858.
21097	Railroad-rail	M. J. Waldron	Dunkirk, N. Y	Aug. 3, 1858.
21241	Railroad-rail	S. A. Beers	Brooklyn, N. Y	Aug. 24, 1858.
22376	Railroad-rail	Augustus Plinta	Albany, N. Y	Dec. 21, 1858.
20928	Railroad-rails, connecting the ends of	K. H. Allen	Worcester, Mass	July 20, 1858.
19555	Railroad-rails, splice for joints of	M. Fisher	Trenton, N. J	Mar. 9, 1858.
21014	Railroad-rails, splice pieces for	Edward Morris	Philadelphia, Penn	July 27, 1858.
19361	Railroad snow-plough	H. T. Hartman	Lexington, Va	Feb. 16, 1858.
19339	Railroad snow-plough	J. K. Babcock	Honeoye Falls, N. Y	Feb. 16, 1858.
19847	Railroad station indicator	John M. Harvey and N. J. Becker	Amsterdam, N. Y Florida, N. Y	April 6, 1858.
19880	Railroad station indicator	Charles J. Smith	North Prairie, Wis	April 6, 1858.
19304	Railroad station pumps, mode of operating	William McVeigh	Boone, Ill	Feb. 9, 1858.
20108	Railroad stations, machinery for supplying tenders with water at.	B. M. Van Der Veer	Clyde, N. Y	April 27, 1858.
20959	Railroad-switch	George R. Smith	Ithaca, N. Y	July 20, 1858.
21006	Railroad-switch, signal lantern for	S. N. Lennon	Deposit, N. Y	July 27, 1858.
20620	Railroad-track and cast-iron pavement, combined	William Bryent, assignor to Daniel D. Badger	Boston, Mass New York, N. Y	June 22, 1858.
19440	Railroad-track clearer	Pelatiah Osgood	Waterville, Me	Feb. 23, 1858.
19241	Railroad-track, mode of laying	F. P. Dimpfel	Philadelphia, Penn	Feb. 2, 1858; France, Oct. 27, 1856.
21406	Railroad-tracks, joints for	E. U. Benedict	Horicon, Wis	Sept. 7, 1858.
19165	Railroad-tracks, joints of	Charles A. Wakefield	New Haven, Conn	Jan. 19, 1858.
21971	Railroad-turn or circular-switch, miner's	Elias B Lowman	Bell Air, Ohio	Nov. 2, 1858.
	Railroads and turnpikes, machine for breaking stones for ballasting. (See Class XV, letter S.)			
21007	Railroads, compound rails for	E. E. Lewis, W. B. Dunning, and C. Wheat.	Geneva, N. Y	July 27, 1858.
19433	Railroads, construction of the permanent way of.	James E. McConnell and William Seaton	Wolverton, England London, England	Feb. 23, 1858; England, June 24, 1852.
20218	Railroads, implement for shooting missiles at cows, &c., on.	Stephen Scotton	Richmond Ind.	May 11, 1858.
	Railroads, mode of transmitting magnetic signals on. (See Class VIII, letter S.)			
19718	Railroads, turning and sliding tables for	William Sellers	Philadelphia, Pa	Mar. 23, 1858.
20828	Rails, continuous chair	C. A. Stancliff and James Mingis	Williamsport, Pa.	July 6, 1858.

List of patents for inventions, 1858—CLASS IX.

No.	Inventions or discoveries.	Patentees	Residence.	Date.
19053	Rails for railroads	Levi B. Tyng	Jersey City, N. J	Jan. 5, 1858.
22103	Rails for railroads	John Cochrane	New York, N. Y	Nov. 16, 1858.
19992	Rails for street railroads	John B. Henck	Boston, Mass	April 20, 1858.
21266	Rails for switching cars off the track	John C. Mather	New York, N. Y	Aug. 24, 1858.
20248	Rails, railroad, fastening	S. A. Beers	Kings county, N. Y	May 18, 1858.
20281	Rails, T, block for repairing	Sandford Mason and Edward M. Davis	Michigan City, Ind	May 18, 1858.
21480	Rails, T, joint for	E. U. Benedict	Horicon, Wis	Sept. 14, 1858.
21957	Rails, T, joint for	William Harvey	Albany, N. Y	Nov. 2, 1858.
22168	Railway bars, mode of securing the ends of	Christian E. Detmold	Orange, N. J	Nov. 30, 1858.
20452	Railway bars, rollers for	E. W. Stephens and R. Jenkins	Covington, Ky	June 1, 1858.
	Railway bars, rolling. (See Class II, letter R.)			
22031	Railway bars, securing the ends of	Augustus Plinta	Albany, N. Y	Nov. 9, 1858.
22196	Railway bars, securing the ends of	John F. Peabody	Salem, Mass	Nov. 30, 1858.
20841	Railway-bridge signalizer	A. Burnham, assignor to himself and James M. Cook.	Taunton, Mass	July 6, 1858.
	Railway chairs, rolling. (See Class II, letter R.)			
21380	Railway chairs, rolling	Amos H. Swett	Pittsburg, Pa	Aug. 31, 1858.
20793	Railways, chairs for	William Hall	Springfield, Mass	July 6, 1858.
21899	Railways, street, rails for	Samuel Nicolson	Boston, Mass	Oct. 26, 1858.
19704	Railways, superstructure of	Stephen H. Long, U. S. A	Louisville, Ky	Mar. 23, 1858.
19736	Railways, tracks for city	E. S. Gardner, assignor to himself and John H. Gould.	Philadelphia, Pa	Mar. 23, 1858.
19268	Railways, turning tables for	W. H. Ward	Auburn, N. Y	Feb. 2, 1858.
20060	Removing submarine deposits, method of	Eli Brazelton	St. Louis, Mo	Aug. 3, 1858.
19627	Roofing-cement	William T. De Golyer	Schenectady, N. Y	Mar. 16, 1858.
21553	Roofing-cement	G. W. Cushing	Chicago, Ill	Sept. 21, 1858.
19695	Roofing-cement, composition	Robert Glennon	New Orleans, La	Mar. 23, 1858.
19712	Roofing-cement, composition for	Bradley L. Prime	Hamilton, Ohio	Mar. 23, 1858.
20173	Roofing, cements for	Richard Simons	Rockford, Ill	May 24, 1858.
21246	Roofing-composition	Abram Davis	Chicago, Ill	Aug. 24, 1858.
22343	Roofing, composition for	C. A. Bremmer	Goshen, N. Y	Dec. 21, 1858.

21927	Roofing, compositions for	Josee Johnson, assignor to Joseph Ditto & Co.	New York, N. Y	Oct. 26, 1858.
21643	Roofing-machine	Emanuel Wise, assignor to himself and Charles L. Wood.	Hannibal, Mo	Sept. 28, 1858.
20636	Roofing, metallic	J. C. Gaston	Oxford, Ohio	June 22, 1858.
	Roofing purposes, cement for. (See Class IV, letter C.)			
20059	Roofing-tiles	J. F. Grassle	Hamilton, Ohio	April 27, 1858.
19314	Roofs, sheet metal, joints for	Stephen Scotton	Richmond, Ind	Feb. 9, 1858.
19661	Sash, metallic	Charles Hartwell, assignor to Lewis L. Bartlett.	Boston, Mass	Mar. 16, 1858.
19941	Shutters, illuminating iron rolling	James C. McIntyre	New York, N. Y	April 13, 1858.
20236	Shutters, metallic rolling	W. E. Worthen	New York, N. Y	May 11, 1858.
20630	Shutters, metallic rolling	W. W. Cornell	New York, N. Y	June 22, 1858.
21011	Sinks, sewers, &c , "flushing valve" trap for	Samuel Mathews	New York, N. Y	July 27, 1858.
19426	Snow-plough	Franklin L. Knapp	Gosport, N. Y	Feb. 23, 1858.
19577	Snow-plough	Joseph H. Pawling	Philadelphia, Pa	Mar. 9, 1858.
19950	Snow-plough	Samuel Richards	Philadelphia, Pa	April 13, 1858.
20484	Steps, &c., admitting light and air through	John B. Cornell	New York, N. Y	June 8, 1858.
19070	Stump-extractor	S. P. Castle	Urbana, Ohio	Jan. 12, 1858.
19562	Stump-extractor	Washington Hall	Brewer, Me	Mar. 9, 1858.
22415	Stump-extractor	Francis M. Eagle	North Manchester, Ind	Dec. 28, 1858.
20494	Stumps, machine for cutting out	Frederic Kettler	Milwaukie, Wis	June 8, 1858.
19146	Switch, portable railroad	John C. Mather	New York, N. Y	Jan. 19, 1858.
20367	Switch, railroad	Nathaniel Pullman	New Oregon, Iowa	May 25, 1858.
21631	Switch, railroad	Charles L. Spencer	Providence, R. I	Sept. 28, 1858.
21658	Switch, railroad	Charles C. Dodge	Marshall, Mich	Oct. 5, 1858.
21880	Switch, railroad	Simeon Heywood	Claremont, N. H	Oct. 26, 1858.
19397	Switch, railroad safety	Joseph Wood	Jersey City, N. J	Feb. 16, 1858.
21530	Tanks, water, mode of filling, at railway stations.	Charles Weed	Milledgeville, Ill	Sept. 14, 1858.
22035	Tiles, plates, beams, &c., connecting metallic	Silas T. Savage	Albany, N. Y	Nov. 9, 1858.
19597	Trenching-plough	William Wise	Washington, D. C	Mar. 9, 1858.
19685	Tunnels, metallic, mode of connecting the sections of.	John W. Cochran	New York, N. Y	Mar. 23, 1858.
19639	Vault-covers, attaching the glasses of	George R. Jackson	New York, N. Y	Mar. 16, 1858.
21050	Vault-covers, illuminating glasses for	Thaddeus Hyatt, assignor to George R. Jackson & Co.	New York, N. Y	July 27, 1858.
20679	Vault-covers, safety	E. L. Brown, assignor to B. F. Brown	Boston, Mass	June 22, 1858.

List of patents for inventions, 1858—CLASS IX.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22069	Vault-lights	Cornelius Donaldson	New York, N. Y	Nov. 16, 1858.
21605	Vault-lights, metallic frames for	Michael Grosz and Peter H. Jackson	New York, N. Y	Sept. 28, 1858.
20721	Vaults, &c., illuminating-covers for	E. P. Leonard and P. H. Jackson	New York, N. Y	June 29, 1858.
21498	Walls under water, method of building	W. H. Horstmann	New York, N. Y	Sept. 14, 1858.
22151	Wells, apparatus for boring	I. M. Butler	Oxford, Miss	Nov. 23, 1858.
20611	Wharf, floating, revolving	Henry Albro	Covington, Ky	June 22, 1858.
21648	Window-blind, rolling	S. W. Bidwell	Hartford, Ct	Oct. 5, 1858.
22177	Window-blind slats, machine for making	Isaac W. Gere	South Granby, N. Y	Nov. 30, 1858.
21417	Window-blinds	A. Herder	New York, N. Y	Sept. 7, 1858.
20576	Window-blinds, metallic	Charles Neer	Troy, N. Y	June 15, 1858.
21732	Window-blinds, method of adjusting	W. H. Babcock	Homer, N. Y	Oct. 12, 1858.
19488	Window-blinds, operating	Theodore Christian	New York, N. Y	Mar. 2, 1858.
20996	Window-blinds, operating	Andrew Ferber	Elizabeth City, N. J	July 27, 1858.
21408	Window-blinds, operating	Theodore Christian	New York, N. Y	Sept. 7, 1858.
	Window-blinds, turn-buckle for. (See Class II, letter B.)			
19362	Window-frame	Sebastian Haas	Buffalo, N. Y	Feb. 16, 1858.
21136	Window-sash, hanging	Ross Johnson	Frederick, Md	Aug. 10, 1858.
22365	Window-sash, hanging	Theodore F. Hall	Marietta, Ohio	Dec. 21, 1858.
19301	Window-sash, removable	Robert H. Kirck	Utica, N. Y	Feb. 9, 1858.
19267	Window-sashes, fastening for	Francis Thrasher and Henry B. Horton	Akron, Ohio	Feb. 2, 1858.
20857	Window-sashes, spring-pulley for	Dana Bickford	Westerly, R I	July. 13, 1858.
19348	Window-shutter, metallic	John B. Cornell	New York, N. Y	Feb. 16, 1858.
	Window-spring. (See Class II, letter S.)			
21916	Window-stop	Turner Williams	Providence, R. I	Oct. 26, 1858.

CLASS X.—LAND CONVEYANCE, *comprising carriages, cars, and other vehicles used on roads, and parts thereof.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19762	Axle-boxes	W. B. Fahnestock	Lancaster, Pa	Mar. 30, 1858.
21998	Axle-boxes	Henry Howson, assignor to I. P. and J. L. Wendell.	Philadelphia, Pa	Nov. 2, 1858.
21943	Axle-boxes, car	John W. Cochran	New York, N. Y	Nov. 2, 1858.
20991	Axle-boxes, &c	David Cumming	Sorrel Horse, Pa	July 27, 1858.
21652	Axles, car, lubricating	John W. Cochran	New York, N. Y	Oct. 5, 1858.
20535	Car axle-boxes from pedestals, disconnecting	W. D. Arnett	Chicago, Ill	June 15, 1858.
19290	Car axle-boxes, railroad	George W. Geisendorff and J. C. Geisendorff	Indianapolis, Ind Cincinnati, Ohio	Feb. 9, 1858.
19741	Car axle-boxes, railroad	R. N. Allen	Cleveland, Ohio	Mar. 23, 1858.
19840	Car-axles, railroad, box-cases and lubricators for.	George W. Geisendorff and J. C. Geisendorff	Cincinnati, Ohio	April 6, 1858.
19530	Car-axles, railroad, boxes and journals for	Isaac P. Wendell	Philadelphia, Pa	Mar. 2, 1858.
19095	Car-boxes, railroad	David Matthew	Philadelphia, Pa	Jan. 12, 1858.
21996	Car-brake	J. N. Ward	Brooklyn, N. Y	Nov. 2, 1858.
22291	Car-brake	Joseph Hough and Jacob Moore	Buckingham, Pa Bart, Pa	Dec. 14, 1858.
19012	Car-brake, railroad	John L Branch, Isaac Branch, and Daniel W. Branch.	Charleston, S. C	Jan. 5, 1858.
19157	Car-brake, railroad	Thomas W. Smith	Alexandria, Va	Jan. 19, 1858.
19223	Car-brake, railroad	George W. Windsor	Allegheny, Pa	Jan. 26, 1858.
19192	Car-brake, railroad	Samuel Gumaer	Chicago, Ill	Jan. 26, 1858.
19260	Car-brake, railroad	Nathaniel Potter	Hillsdale, Mich	Feb. 2, 1858.
19599	Car-brake, railroad	Stephen M. Whipple	North Adams, Mass	Mar. 9, 1858.
19734	Car-brake, railroad	Daniel H. Feger, assignor to himself and Mahlon M. Wombaugh.	Cincinnati, Ohio	Mar. 23, 1858.
19917	Car-brake, railroad	Gideon Dorsch	Schenectady, N. Y	April 13, 1858.
20237	Car-brake, railroad	George W. Zeigler	Tiffin, Ohio	May 11, 1858.
20339	Car-brake, railroad	C. H. Eisenbrandt	Baltimore, Md	May 25, 1858.
20429	Car-brake, railroad	Thomas Hopper	Newark, N. J	June 1, 1858.
20468	Car-brake, railroad	G. W. Cummings, assignor to D. K. Jackman and Joseph Hanna.	Philadelphia, Pa	June 1, 1858.

List of patents for inventions, 1858—CLASS X.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20769	Car-brake, railroad	Henry M. Collier	Binghamton, N. Y	June 29, 1858.
21038	Car-brake, railroad	W. B. Wait	Portsmouth, N. H	July 27, 1858.
22213	Car-brake, railroad	Asa L. Whipple	Elmira, N. Y	Nov. 30, 1858.
22229	Car-brake, railroad	Henry E. Chapman	Albany, N. Y	Dec. 7, 1858.
22455	Car-brake, railroad	John W. Rice	Springfield, Mass	Dec. 28, 1858.
	Car-brakes, application of magnetic batteries to. (See Class VIII, letter E.)			
20627	Car-coupling	C. B. Cotter	Harrisburg, Pa	June 22, 1858.
21737	Car-coupling	George S. Bishop	Washington, D. C	Oct. 12, 1858.
19021	Car-coupling, railroad	James M. Connel	Newark, Ohio	Jan. 5, 1858.
19049	Car-coupling, railroad	John Schneider	Chicago, Ill	Jan. 5, 1858.
19186	Car-coupling, railroad	George W. Doolittle	Richfield Springs, N. Y	Jan. 26, 1858.
19204	Car-coupling, railroad	John Pearson	Sterling, Iowa	Jan. 26, 1858.
19794	Car-coupling, railroad	John W. Rice	Springfield, Mass	Mar. 30, 1858.
19925	Car-coupling, railroad	Albert Hebbard	Galesburg, Ill	April 13, 1858.
20139	Car-coupling, railroad	William H. Burridge and Nathan L. Post	Cleveland, Ohio	May 4, 1858.
20264	Car-coupling, railroad	F. E. Gleason	Columbus, Ohio	May 18, 1858.
20392	Car-coupling, railroad	A. Lapham and D. H. Burns, assignors to themselves and C. A. Durgin.	Brooklyn, N. Y	May 25, 1858.
20817	Car-coupling, railroad	J. H. Quackenbush	Owasso, Mich	July 6, 1858.
21486	Car-coupling, railroad	J. W. Corey	Crawfordsville, Ind	Sept. 14, 1858.
21502	Car-coupling, railroad	Charles P. Kenyon	Wilson, N. C	Sept. 14, 1858.
21901	Car-coupling, railroad	Philander Perry	Troy, N. Y	Oct. 26, 1858.
21356	Car-seat	William Painter	Wilmington, Del	Aug. 31, 1858.
21870	Car-seat	A. C. Blondyn	St. Joseph, Mo	Oct. 26, 1858.
21967	Car-seat	P. P. Joseff	Philadelphia, Pa	Nov. 2, 1858.
21985	Car-seat	John W. Sibbet	Cincinnati, Ohio	Nov. 2, 1858.
19079	Car-seat, railroad	Jacob S. Denman	Brooklyn, N. Y	Jan. 12, 1858.
19910	Car-seat, railroad	David Buzzell	Charlestown, Mass	April 13, 1858.
20654	Car-seat, railroad	John Millar	Paterson, N. J	June 22, 1858.
21052	Car-seat, railroad	John McMurtry, assignor to James B. Clow and John Best.	Fayette county, Ky	July 27, 1858.

21178	Car-seat, railroad	James M. Baird	Wheeling, Va	Aug. 17, 1858.
21352	Car-seat, railroad	C. M. Mann	Detroit, Mich	Aug. 31, 1858.
21326	Car-seat, railroad	John C. De Witt	West Bloomfield, N. J	Aug. 31, 1858.
21727	Car-seat, railroad	Draper Stone, assignor to himself and E. S. Turner.	Milwaukie, Wis	Oct. 5, 1858.
22471	Car-seat, railroad	George L. Dulaney, assignor to himself and Solomon K. Moore.	Mount Jackson, Va	Dec. 28, 1858.
20622	Car-seats and berths, railroad	S. C. Case	Detroit, Mich	June 22, 1858.
21251	Car-seats and couches	I. N. Forrester	Fairfax C. H., Va	Aug. 24, 1858.
21331	Car-seats and couches	K. Freeman	Fond du Lac, Wis	Aug. 31, 1858.
21412	Car-seats and couches	R. E. Fowler	Clayton, N. Y	Sept. 7, 1858.
21536	Car-seats and couches	Alexander M. Holmes, assignor to himself and A. G. Purdy.	Eaton, N. Y	Sept. 14, 1858; additional improvement Dec. 21, 1858.
22283	Car-seats and couches	G. W. Fairfield	Holyoke, Mass	Dec. 14, 1858.
22338	Car-seats and couches	Horace L. Arnold	Elk Horn, Wis	Dec. 21, 1858.
22462	Car-seats and couches, railroad	Nathan Thompson, jr	Brooklyn, N. Y	Dec. 28, 1858.
21952	Car-springs	Perry G. Gardiner	New York, N. Y	Nov. 2, 1858.
22292	Car-springs	Charles R. Hurlburt	Seymour, Conn	Dec. 14, 1858.
21624	Car-springs, India-rubber	Sanford Peatfield	Ipswich, Mass	Sept. 28, 1858.
19767	Car-springs, machine for testing and measuring the strength of.	Perry G. Gardiner	New York, N. Y	Mar. 30, 1858.
19219	Car-springs, railroad	Henry Waterman	Hudson, N. Y	Jan. 26, 1858.
19448	Car-springs, railroad	David B. Rogers	Pittsburg, Pa	Feb. 23, 1858.
19435	Car-springs, railroad	Stephen Morse	Springfield, Mass	Feb. 23, 1858.
20148	Car-springs, railroad	A. M. De Hart	Reading, Pa	May 4, 1858.
20998	Car-springs, railroad	John J. Fields	Brooklyn, N. Y	July 27, 1858.
21603	Car-springs, tempering steel	Perry G. Gardiner	New York, N. Y	Sept. 28, 1858.
19763	Car-wheels	William B. Fahnestock	Lancaster, Pa	Mar. 30, 1858.
20583	Car-wheels	John Pugh	Franklin, Tenn	June 15, 1858.
21614	Car-wheels, cast-iron	H. W. Moore	Jersey City, N. J	Sept. 28, 1858.
	Car-wheels, casting. (See Class II, letter C.)			
20924	Car-wheels, cooling	R. Poole, assignor to himself and German H. Hunt.	Baltimore, Md	July 13, 1858.
	Car-wheels, cast-iron, manufacturing. (See Class II, letter I.)			
19380	Car-wheels, railroad	Stephen E. Parrish	Nashville, Tenn	Feb. 16, 1858.
19445	Car-wheels, railroad	Seymour Rogers	Pittsburg, Pa	Feb. 23, 1858.
19776	Car-wheels, railroad	William W. Hubbell and Richard H. Hubbell	Philadelphia, Pa / Delaware county, Pa	Mar. 30, 1858.

List of patents for inventions, 1858—CLASS X.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19810	Car-wheels, railroad	H. C. Bulkley, assignor to James M. Ross	Springfield, Mass	Mar. 30, 1858.
22049	Car-wheels, railroad	Thomas C. Ball, assignor to himself, L. Bisco, A. S. Davis, K. Crossfield, Edward Edwards, and Jacob Green.	Keene, N. H	Nov. 9, 1858.
20004	Car-wheels, railroad, securing tires to	Lea Pusey	Philadelphia, Pa	April 20, 1858.
20610	Car-wheels, &c	W. Willoughby, assignor to himself and W. H. Wizeman.	Markwell, Miss	June 15, 1858.
	Carriage-axles, machine for upsetting. (See Class II, letter A.)			
21391	Carriage-bows, attaching the props of	D. B. Wright and L. Sawyer	South Amesbury, Mass	Aug. 31, 1858.
20412	Carriage-brake	George L. Dickson	Carbondale, Pa	June 1, 1858.
21353	Carriage, children's	W. P. McKinstry	New York, N. Y	Aug. 31, 1858.
22300	Carriage, children's	Gilbert Maynard	Greenfield, Mass	Dec. 14, 1858.
21449	Carriage, hose	I. S. Schuyler and L. A. Rockwell	New York, N. Y	Sept. 7, 1858.
22304	Carriage-seats, adjustable	Henry H. Potter	Carthage, N. Y	Dec. 14, 1858.
21420	Carriage-shafts, convertible	Amos K. Hoffmeier	Lancaster, Pa	Sept. 7, 1858.
19396	Carriage-spring guard	Thomas Winans	Baltimore, Md	Feb. 16, 1858.
20497	Carriage-springs	D. M. Lane	West Philadelphia, Pa	June 8, 1858.
20820	Carriage-springs, attaching	Luther O. Rice	Berlin, Canada West	July 6, 1858.
19102	Carriage-springs, equalizing	Daniel G. Rollin	New York, N. Y	Jan. 12, 1858.
20268	Carriage-springs, forming the heads of	Samuel H. Hartman	Pittsburg, Pa	May 18, 1858.
22314	Carriage-thills to axles, attaching	John W. Sibbet	Cincinnati, Ohio	Dec. 14, 1858.
19065	Carriage-top	Newton Benedict	Aurelius, N. Y	Jan. 12, 1858.
21766	Carriage-wheels, box for	R. W. McClelland	Pekin, Ill	Oct. 12, 1858.
21083	Carriage-wheels, hubs for	Norman Platt	Jackson, Miss	Aug. 3, 1858.
19820	Carriage-wheels, hubs for	James M. Whiting, assignor to George F. Wilson and Alfred Anthony	New Bedford, Mass Providence, R. I	Mar. 30, 1858.
19478	Carriage-wheels, metallic	Waldren Beach	Baltimore, Md	Mar. 2, 1858.
20586	Carriage-wheels, metallic hub for	S. I. Russell	Chicago, Ill	June 15, 1858.
20869	Carriage-wheels, metallic hub for	N. T. Edson	New Orleans, La	July 13, 1858.
19951	Carriage-wheels, tightening the spokes and felloes of.	B. A. Rogers	Shubuta, Miss	April 13, 1858

19721	Carriage-wheels, tightening the tires of	Robert B. Scott	Philadelphia, Pa	Mar. 23, 1858; add'l imp't June 8, 1858.
19264	Carriages, adjustable axle-brace for	F. O. Rogers	Elmira, N. Y	Feb. 2, 1858.
21012	Carriages for children, hanging	Gilbert Maynard	Greenfield, Mass	July 27, 1858.
19113	Carriages, shafts and poles to, attaching	V. N. Mitchell, assignor to himself, H. A. Area, and C. N. White.	Concord, N. C	Jan. 12, 1858.
19446	Carriages, &c., boxes for receiving money in	James Rodgers	New York, N. Y	Feb. 23, 1858.
19676	Carriages, &c., securing the wheels of	Adolphus Bruns	Davenport, Iowa	Mar. 23, 1858.
21696	Cars and locomotives when without steam, windlass for moving.	Charles Page	West Meriden, Conn	Oct. 5, 1858.
21086	Cars, brakes for railroad	John W. Rice	Springfield, Mass	Aug. 3, 1858.
20614	Cars from running off the track, preventing	Leverett Ball	Auburn, N. Y	June 22, 1858.
21026	Cars, horse railway, coupling for	Blaney E. Sampson	Boston, Mass	July 27, 1858.
20675	Cars on the track, railroad, machine for replacing.	John Whyte	Boston, Mass	June 22, 1858.
21469	Cars, railroad, couch-seats for	John Hartman, jr., assignor to John Hartman, sr.	Philadelphia, Pa	Sept. 7, 1858.
21436	Cars, railroad, couches for	F. R. Myers and F. H. Furniss	Cleveland, Ohio	Sept. 7, 1858.
21600	Cars, railroad, couches for	J. B. Creighton	Tiffin, Ohio	Sept. 28, 1858.
20983	Cars, railroad, coupling for	George S. Bishop	Washington, D. C	July 27, 1858.
21244	Cars, railroad, coupling for	J. Campbell, V. B. Lighthizer, and P. Shannon.	Steubenville, Ohio	Aug. 24, 1858.
20070	Cars, railroad, elliptic cushions for	Samuel R. Jones	York, Pa	April 27, 1858; reissued Oct. 26, 1858.
20254	Cars, railroad, for day and night service	J. B. Creighton	Tiffin, Ohio	May 18, 1858; reissued Sept. 21, 1858.
20021	Cars, railroad, method of ventilating	Calvin Pepper, assignor to Nelson R. Scovel.	Albany, N. Y	April 20, 1858.
20176	Cars, railroad, method of ventilating and excluding dust from.	A. B. Spencer	Rochester, N. Y	May 4, 1858.
19574	Cars, railroad, mode of operating brakes of	Melville McGee	Jackson, Mich	Mar. 9, 1858.
21259	Cars, railroad, running gear for	James Ingersoll	Grafton, Ohio	Aug. 24, 1858.
20293	Cars, railroad, safety attachment for	H. A. Newhall	Newton, Mass	May 18, 1858.
22364	Cars, railroad, seats and sleeping couches for	Plymon B. Green	Chicago, Ill	Dec. 21, 1858.
22025	Cars, railroad, sleeping berths for	D. M. Lawrence	Cincinnati, Ohio	Nov. 9, 1858.
21992	Cars, railroad, speed indicator and recorder for.	J. D. Steel and W. Lorenz	Pottstown, Pa	Nov. 2, 1858.
20418	Cars, railroad, springs for	Heman Gardiner	New York, N. Y	June 1, 1858.
19789	Cars, railroad, ticket-holders for	M. L. Mickles and L. S. Olmsted	Aurora, Ill	Mar. 30, 1858.
19331	Cars, railway, mode of connecting the trucks of.	T. F. Allen	Dyersville, Iowa	Feb. 16, 1858.
21099	Cars, sleeping, for railroads	Eli Wheeler	Elmira, N. Y	Aug. 3, 1858.
21070	Cars, sleeping, for railroads	Charles L. Harrington	Buffalo, N. Y	Aug. 3, 1858

List of patents for inventions, 1858—CLASS X.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Chair, railroad. (See Class IX, letter R.)			
	Chairs, railroad, manufacture of wrought iron. (See Class IX, letter R.)			
	Chairs, railway, rolling. (See Class IX, letter R.)			
20507	Head-rest, combined umbrella and	Charles G. Page	Washington, D. C	June 8, 1858.
20197	Hub-machine	Lovett Eames	Kalamazoo, Mich.	May 11, 1858.
	Hubs, arrangement of cutters for turning. (See Class XIV, letter T.)			
19424	Journal-box	D. A. Hopkins	Paterson, N. J.	Feb. 23, 1858.
20363	Journal-box	J. A. Norris	Philadelphia, Pa.	May 25, 1858.
19548	Journal-boxes of connecting rods or pitmen, mode of tightening and securing the keys of the.	Levi Dederick	Albany, N. Y	Mar. 9, 1858.
19471	Omnibus fare-box	Israel S. Reeves, assignor to I. B. Slawson.	New Orleans, La.	Feb. 23, 1858; reissued Nov. 23, 1858.
19765	Omnibus fares, cane for paying	S. W. Francis	New York, N. Y.	Mar. 30, 1858.
20349	Omnibus-register	Royal E. House	Binghamton, N. Y	May 25, 1858.
20986	Omnibus-register	Louis Brauer	Washington, D. C.	July 27, 1858.
21372	Omnibuses, &c., fare-boxes for	I. B. Slawson	New Orleans, La	Aug. 31, 1858.
	Railroad trains, method of registering speed of. (See Class VIII, letter R.)			
22295	Sled-brake	Albertus Larrowe	Cohocton, N. Y	Dec. 14, 1858.
19994	Sleds, runners of	John Hoyt	Fishkill, N. Y.	April 20, 1858.
19980	Sleds, runners of	Silas Bullard	Hartland, Mich.	April 20, 1858.
20903	Sleigh-runners, attaching	William W. St. John	Lima, N. Y.	July 13, 1858.
21255	Springs, metallic	James Harrison, jr.	New York, N. Y	Aug. 24, 1858.
19764	Springs, pneumatic	William R. Fee	Cincinnati, Ohio	Mar. 30, 1858.
19450	Springs, volute	Daniel G. Rollin	New York, N. Y	Feb. 23, 1858.
20127	Vehicles, adjustable seats of	George J. Lucas, assignor to himself and John G. Lucas.	Poughkeepsie, N. Y.	April 27, 1858.
20033	Vehicles, attaching shafts to	John A. Boyce	Monroe, N. Y	April 27, 1858.

19567	Vehicles, attaching the springs of	F. L. Kidder and A. E. Aeby	Brooklyn, N. Y	Mar. 9, 1858.
19558	Vehicles, fifth wheel for	H. T. Goodale	Clinton, Mass	Mar. 9, 1858.
20652	Vehicles, metallic wheels for	T. McConaughy and J. McCollum	Burnsville, Ala	June 22, 1858.
19088	Vehicles, wheel	John Heiden	New York, N. Y	Jan. 12, 1858.
19092	Velocipede	Louis Kellner	Brooklyn, N. Y	Jan. 12, 1858.
21615	Wagon, ambulance	Israel Moses	New York, N. Y	Sept. 28, 1858.
19112	Wagon-brake	Sylvester A. Hough, assignor to himself and A. S. Hough.	Oxford, Ga	Jan. 12, 1858.
21569	Wagon-brake, self-acting	Albertus Larrowe	Cohocton, N. Y	Sept. 21, 1858.
19477	Wagon, manure	Jethro W. Barnes	Murfreesboro', N. C	Mar. 2, 1858.
19550	Wagon-tire, machine for fitting	Edward L. Dorsey	Johnson county, Ind.	Mar. 9, 1858.
19372	Wagons, extension reach for	J. W. Langdon	Marengo, Ill	Feb. 16, 1858.
20795	Wagons, running gear of	Jonathan Hibbs	Tullytown, Pa	July 6, 1858.
20504	Wagons, &c., brake for	B. B. Munroe	South Dansville, N. Y	June 8, 1858.
19947	Wheels of steam vehicles, ploughs, &c., giving adhesion to driving.	John T. Price	Rockville, Ind	April 13, 1858.
21081	Whiffle-tree, safety	George F. Outten	Norfolk county, Va	Aug. 3, 1858.

CLASS XI.—HYDRAULICS AND PNEUMATICS, *including water-wheels, wind mills, and other implements operated on by air or water, or employed in the raising and delivery of fluids.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22219	Air-engine	Henry M. Paine	Worcester, Mass	Nov. 30, 1858.
22281	Air-engine	John Ericsson	New York, N. Y	Dec. 14, 1858.
19475	Bellows	Jacob Arnoldt	Wheeling, Va.	Mar. 2, 1858.
20045	Blowing apparatus	David Cumming	Sorrel Horse, Pa	April 27, 1858.
19013	Cock, supply	William S. Carr	New York, N. Y	Jan. 5, 1858.
20314	Cock, valve	Seth Adams	Boston, Mass	May 25, 1858.
20788	Faucet	Henry Getty	Brooklyn, N. Y	July 6, 1858.
20853	Faucet	N. P. Whittlesey, assignor to James A. Frary.	Meriden, Conn	July 6, 1858.
22402	Faucet	Martin Robbins and James Powell, assignors to James Powell.	Cincinnati, Ohio	Dec. 21, 1858.

List of patents for inventions, 1858—CLASS XI.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20799	Faucet, measuring	Gilbert Hubbard	Montville, Mass.	July 6, 1858.
	Faucets, casting. (See Class II, letter C.)			
19929	Filterer, water	A. Jaminet	Florisant, Mo	April 13, 1858.
19335	Filtering apparatus	Charles Ballard	Worcester, Mass.	Feb. 16, 1858.
21964	Filtering-cock	Lemuel P. Jenks and Francis Draper	Boston, Mass East Cambridge, Mass	Nov. 2, 1858.
21809	Gauge for contents of casks, &c	John K. Barney	Warren, R. I.	Oct. 19, 1858.
21814	Gauge, liquid	Erastus T. Bussell and Joseph Smith	Cincinnati, Ohio	Oct. 19, 1858.
20532	Hose-coupling	Charles Vander Woerd, assignor to Alvah Clark & Sons.	Cambridge, Mass	June 8, 1858.
22166	Hose-coupling	James C. Cooke	Middletown, Conn.	Nov. 30, 1858.
22296	Hose, engine	Charles L. Lenzmann	Brooklyn, N. Y	Dec. 14, 1858.
21307	Hose, &c., machine for cleaning	John B. Alden, jr., and Edwin L. Gates	Worcester, Mass.	Aug 31, 1858.
19029	Hydrant	John Hyde	New York, N. Y	Jan. 5, 1858.
19022	Hydrant	Richard De Charms	Philadelphia, Pa.	Jan. 5, 1858.
19206	Hydrant	W. Race and S. R. C. Mathews	Seneca Falls, N. Y	Jan. 26, 1858.
19330	Hydrant	Kingston Goddard	Philadelphia, Pa.	Feb. 9, 1858.
19513	Hydrant	James Powell	Cincinnati, Ohio	Mar. 2, 1858.
19511	Hydrant	John Parham and Samuel P. Parham	Philadelphia, Pa. Trenton, N. J	Mar. 2, 1858.
21338	Hydrant	James R. Higgs	Utica, N. Y	Aug. 31, 1858.
21858	Hydrant	James Swan	Brooklyn, N. Y	Oct. 19, 1858.
22357	Hydrant	Samuel P. Francisco and Wm. P. Dickinson	Reading, Pa	Dec. 21, 1858.
19224	Hydraulic-engine	Jas S. Gwynne, assignor to Samuel Nicolson	New York, N. Y Boston, Mass	Jan. 26, 1858.
20523	Hydraulic ram	Joseph F. Warner	Philadelphia, Pa	June 8, 1858.
19398	Hydraulic valve	Calvin and George M. Woodward	New York, N. Y	Feb. 16, 1858.
20169	Metre, fluid	William C. Perrine	New York, N. Y	May 4, 1858.
20979	Metre, fluid	E. D. Weatherbee, assignor to himself and L. Harding.	Worcester, Mass	July 20, 1858.
22315	Metre, fluid	Charles William Siemens	London, England	Dec. 14, 1858; England, Mar. 4, 1853.

19414	Metre, water	William M. Faris	Wheeling, Va	Feb. 23, 1858.
20842	Metre, water	William Darker, jr., assignor to J. B. Thompson.	Philadelphia, Pa	July 6, 1858.
21283	Metre, water	F. A. Tenney	Concord, N. H	Aug. 24, 1858.
19286	Pump	William Boyers	Mount Carroll, Ill	Feb. 9, 1858.
19699	Pump	J. O. Joyce	Cincinnati, Ohio	Mar. 23, 1858.
19671	Pump	James B. Atwater	Brooklyn, N. Y	Mar. 23, 1858.
20442	Pump	S. S. Putnam	Boston, Mass	June 1, 1858.
20787	Pump	A. A. Genung	Painesville, Ohio	July 6, 1858.
20783	Pump	Gilbert B. Farnam	Meriden, Conn	July 6, 1858.
20880	Pump	George Hibsch	Buffalo, N. Y	July 13, 1858.
21043	Pump	Henry Zeng	Elizabethport, N. J	July 27, 1858.
21561	Pump	Foster Henshaw	Washington, D. C	Sept. 21, 1858.
21560	Pump	S. H. Gray	Bridgeport, Conn	Sept. 21, 1858.
21801	Pump	Henry W. Regan, assignor to himself and George H. Newer.	Cressora, Pa	Oct. 12, 1858.
22201	Pump	O. W. Preston, jr	Corning, N. Y	Nov. 30, 1858.
22182	Pump	A. L. Keeports and George Palmer	Littlestown, Pa	Nov. 30, 1858.
22165	Pump	Asahel Cooley	Springfield, Ill	Nov. 30, 1858.
19981	Pump and gasometer, compound air	Samuel Chichester	Poughkeepsie, N. Y	April 20, 1858.
19173	Pump-bucket	William F. Horton, assignor to Walter K. Marvin.	Lockport, N. Y	Jan. 19, 1858.
20443	Pump-bucket	Emmett Quinn	Trenton, N. J	June 1, 1858.
21756	Pump, centrifugal	W. C. Hibbard	West Roxbury, Mass	Oct. 12, 1858.
20060	Pump-coupling	S. H. Gray	Bridgeport, Conn	April 27, 1858.
19907	Pump, double-acting force	Eugene Bellamy	St. Louis, Mo	April 13, 1858.
19680	Pump, oscillating	Ezra Cope and Isaac W. Bragg	Cincinnati, Ohio	Mar. 23, 1858.
19834	Pump, portable	W. and B. Douglas	Middletown, Conn	April 6, 1858.
19180	Pump, rotary	John S. Barden	New Haven, Conn	Jan. 26, 1858.
19581	Pump, rotary	William Peirce	New Orleans, La	Mar. 9, 1858.
20796	Pump, rotary	A. P. Holly	Seneca Falls, N. Y	July 6, 1858.
21318	Pump, rotary	Levi Burnell	Milwaukie, Wis	Aug. 31; add'l imp't Dec. 14, 1858.
21550	Pump, rotary	M. R. Clapp	Seneca Falls, N. Y	Sept. 21, 1858.
21632	Pump, rotary	B. T. Trimmer	Rochester, N. Y	Sept. 28, 1858.
	Pumping-engines, steam. (See Class VI, letter E.)			
21904	Pumps, mode of operating	Daniel J. Rogers	Magnolia, N. C	Oct. 26, 1858.
19276	Pumps, mode of operating pistons of	Simeon Wood	Worcester, Mass	Feb. 2, 1858.

List of patents for inventions, 1858—CLASS XI.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Pumps, railroad station, mode of operating. (See Class IX, letter R.)			
21071	Sound, tube for conveyance of	R. G. Hatfield	Mt. Vernon, N. Y	Aug. 3, 1858.
	Springs, pneumatic. (See Class X, letter S.)			
21898	Water, device for elevating, by the combustion of a volatilizable hydro-carbon.	Robert Nelson	New York, N. Y	Oct. 26, 1858.
21928	Water-motor	Caleb Rider, assignor to George T. McLanthlin.	Plymouth, Mass	Oct. 26, 1858.
19214	Water-wheel	Frederick Smith	Buffalo, N. Y	Jan. 26, 1858.
20187	Water wheel	Jesse Bartoo	East Aurora, N. Y	May 11, 1858.
20234	Water-wheel	Alonzo Warren and E. Damon, jr	Wareham, Mass	May 11, 1858.
20200	Water-wheel	J. H. Fairchild	Jericho, Vt	May 11, 1858.
20335	Water-wheel	John Custer	Finley, Ohio	May 25, 1858.
20456	Water-wheel	John Tyler	West Lebanon, N. H	June 1, 1858.
20921	Water-wheel	David R. Kraatz, assignor to himself and Isaac S. Roland.	Ephratah, Pa	July 13, 1858.
21578	Water-wheel	Alpha Smith	Sauquoit, N. Y	Sept. 21, 1858.
21753	Water-wheel	W. H. Harbough	Piqua, Ohio	Oct. 12, 1858.
21757	Water-wheel	J. P. and D. W. Hoyt	Lumber City, Pa	Oct. 12, 1858.
22282	Water-wheel	John H. Fairchild	Jericho, Vt	Dec. 14, 1858.
21791	Water-wheel and chute	Alden Whitman	Auburn, Me	Oct. 12, 1858.
19115	Water-wheel, chute for	Chauncey B. Whitney, assignor to Philip Case.	Ithaca, N. Y	Jan. 12, 1858.
20437	Water-wheel, horizontal	John McCarty	Catharine, N. Y	June 1, 1858.
20350	Wind-wheel	James B. Johnson	San Francisco, Cal	May 25, 1858.
20336	Wind-wheel	William H. Derrick	Stockton, Cal	May 25, 1858.
19383	Wind-wheels, method of furling the sails of	George W. Shaw	Thompson, Conn	Feb. 16, 1858.

CLASS XII.—LEVER, SCREW, AND OTHER MECHANICAL POWER, *as applied to pressing, weighing, raising, and moving weights.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
	Applying power to the cranks of engines. (See Class VI, letter E.)			
19830	Bags, clasp for fastening	W. H. Cloud, A. L. Hatfield, and C. H. Burdick.	Fremont, Ohio	April 6, 1858.
21520	Balances, spring, in combination with a knife	George H. Smith	Glenwood, Iowa	Sept. 14, 1858.
19437	Bale-hoops, cotton	John McMurtry, assignor to Daniel Whiel.	Lexington, Ky	Feb. 23, 1858.
21517	Bale-hoops, cotton, clasps for	Albert C. Richard	Newtown, Conn	Sept. 14, 1858.
21305	Bale-hoops, coupling for	John Agnew	Columbia, S. C	Aug. 31, 1858.
19709	Bale-ties, cotton	David G. Olmstead	Vicksburg, Miss	Mar. 23, 1858.
19490	Bales, cotton, metallic ties for	Frederic Cook	New Orleans, La	Mar. 2, 1858.
20311	Bales, cotton, securing metallic bands on	P. C. Ingersoll, assignor to himself and H. F. Dougherty.	Green Point, N. Y	May 18, 1858.
21190	Bales, metallic bands for binding	William Field	Providence, R. I	Aug. 17, 1858.
21360	Bales, &c., cotton, machine for tightening and securing metallic bands for.	George W. Penniston	North Vernon, Ind	Aug. 31, 1858.
21272	Bales, &c., metallic bands or ties for	Increase C. Plant	Macon, Ga	Aug. 24, 1858.
21848	Bands, clasps for metallic or other flexible	Albert C. Richard	Newtown, Conn	Oct. 19, 1858.
22372	Elevating hay, machine for	James C. McGrew	Smithfield, Ohio	Dec. 21, 1858.
	Elevator, hay. (See Class I, letter H.)			
19087	Elevator, hay and straw	James H. Gill	Mt. Pleasant, Ohio	Jan. 12, 1858.
19939	Hoisting and dumping coal, machine for	George Martz	Pottsville, Pa	April 13, 1858.
20455	Hoisting and lowering goods, &c., machinery for	George Thompson	Cincinnati, Ohio	June 1, 1858.
19250	Hoisting ice, apparatus for	Augustus Hunt	Philadelphia, Pa	Feb. 2, 1858.
	Hoisting ice, machine for. (See Class XXII, letter I.)			
20170	Hoisting-machine	Reuben Packard	Rockland, Me	May 4, 1858.
22008	Hoisting-machine	Daniel W. Barr	Lancaster, Pa	Nov. 9, 1858.
	Hoop-lock. (See Class XIV, letter H.)			
21837	Jack, hoisting	William Kearney	Newark, N. J	Oct. 19, 1858.
20372	Jack, lifting	Albert C. Richard	Newtown, Conn	May 25, 1858.
21342	Jack, lifting	Joel C. Jackson	Rochester, N. Y	Aug. 31, 1858.

List of patents for inventions, 1858—CLASS XII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21107	Jack, mechanical	Amos Jones, assignor to himself and Solon M. Davis.	Lebanon, N. H	Aug. 3, 1858.
20624	Lever-power, mode of applying	George E. Clay	Stillwater, Minn	June 22, 1858.
21822	Lifting heavy weights, machine for	T. J. Davis and J. B. Warner	Scroepell, N. Y Volney, N. Y	Oct. 19, 1858.
19291	Lubricating apparatus for journal-boxes of railroad-cars.	Jacob C. Geisendorff	Cincinnati, Ohio	Feb. 9, 1858.
20331	Lubricating car-axles	John W. Cochran	New York, N. Y	May 25, 1858.
20406	Lubricating car-axles	George W. Cochran	New York, N. Y	June 1, 1858.
20674	Lubricating engines, oil-cups for	S. H. Whitmore	Cincinnati, Ohio	June 22, 1858.
19108	Lubricating journals, &c., method of, by a pendulum valve arrangement.	John B. Tom and Stephen D. Tucker	New York, N. Y	Jan. 12, 1858.
19551	Lubricating the axle-boxes of carriage-wheels	William Diller	Lancaster, Pa	Mar. 9, 1858.
19385	Lubricator	William K. Stevens	Alexandria, La	Feb. 16, 1858.
21816	Lubricator	Elias Clampitt	Baltimore, Md	Oct. 19, 1858.
19750	Lubricator for railroad-axles	William Clough	Madison, Ind	Mar. 30, 1858.
20665	Machinery, oil-cup for	R. Ross and W. Holland	Philadelphia, Pa	June 22, 1858.
19572	Packing flour, machine for	Judson Mattison	Oswego, N. Y	Mar. 9, 1858.
19811	Press	S. Ingersoll, assignor to himself, S. B. Turner, and George W. Kimball.	Brooklyn, N. Y	Mar. 30, 1858.
22387	Press, cam	Enoch Thomas	Beverly, Va	Dec. 21, 1858.
20346	Press, cheese	Jacob Hibbard	Weathersfield, N. Y	May 25, 1858.
21883	Press, cheese	Hartwell Kendall	East Dorset, Vt	Oct. 26, 1858.
19071	Press, cotton	Nathan Chapman	Mystic River, Vt	Jan. 12, 1858.
19202	Press, cotton	David G. Olmstead	Vicksburg, Miss	Jan. 26, 1858.
19279	Press, cotton	James A. Disbrow and James E. Cronk, assignors to J. A. Disbrow.	Poughkeepsie, N. Y	Feb. 2, 1858.
19399	Press, cotton	F. W. Witting	Yorktown, Tex	Feb. 16, 1858.
19381	Press, cotton	H. W. Randle	Barnsville, Ala	Feb. 26, 1858.
19413	Press, cotton	Eugene Duchamp	St Martinsville, La	Feb. 28, 1858.
19571	Press, cotton	Josephus Loving	Moscow, Tenn	Mar. 9, 1858.
19714	Press, cotton	Hiram Ross	Rockport, Ind	Mar. 23, 1858.

19821	Press, cotton	Henry Shrader	Burnsville, Ala	Mar. 30, 1858.
19838	Press, cotton	William Field	Providence, R. I	April 6, 1858.
20973	Press, cotton	R. G. Williams	Hannahatchee, Ga	July 20, 1858.
21317	Press, cotton	Thomas J. Bottoms & James A. Bullock	Thomas county, Ga	Aug. 31, 1858.
21894	Press, cotton	Cornelius Martratt	Waterford, N. Y	Oct. 26, 1858.
19708	Press for extracting oil from linseed	Charles Moore	Trenton, N. J	Mar. 23, 1858.
19149	Press for packing the pulp of linseed or other seeds preparatory to extracting the oil from them.	Charles Moore	Trenton, N. J	Jan. 19, 1858.
20551	Press, hay and cotton	L. L. Cummings	Munnsville, N. Y	June 15, 1858.
22216	Press, hay and cotton	Henry Barnes, assignor to himself and N. G. Macrum.	Blairsville, Pa	Nov. 30, 1858.
19232	Press, jack-screw	Joseph W. Bocage	Pine Bluff, Ark	Feb. 2, 1858.
20509	Press, ratchet	Philip H. Raiford	Mobile, Ala	June 8, 1858.
19256	Press, tobacco	William R. Musser and John Coleman	Baltimore, Md Lynchburg, Va	Feb. 2, 1858.
21079	Press, mode of operating	David L. Miller	Madison, N. J	Aug. 3, 1858.
20947	Pressing grapes, machine for	Henry Krause	New York, N. Y	July 20, 1858.
22014	Pressing tobacco, machinery for	William Cameron	Petersburg, Va	Nov. 9, 1858.
20623	Raising marl, dirt, &c., machine for	T. F. Christman	Wilson, N. C	June 22, 1858.
21145	Scales, counter	H. B. Osgood	New Haven, Conn	Aug. 10, 1858.
19061	Scales, platform	James Kelly, assignor to himself and John Sherry.	Sag Harbor, N. Y	Jan. 5, 1858.
19985	Scales, platform	Charles H. Earle	Green Bay, Wis	April 20, 1858.
20492	Scales, platform	J. F. Keeler	Cleveland, Ohio	June 8, 1858.
22244	Scales, platform	Elnathan Sampson	St. Johnsbury, Vt	Dec. 7, 1858.
20792	Springs, machine for testing the strength of	S. H. Hartman	Pittsburg, Pa	July 6, 1858.
21950	Tackle-block	John Ferrier	Charlestown, Mass	Nov. 2, 1858.
21028	Weighing and registering grain, machine for	J. Scheitlin	Columbia, S. C	July 27, 1858.
21999	Weighing carts	James W. Martin, assignor to Lewis Rothermel.	Philadelphia, Pa	Nov. 2, 1858.
20513	Weighing-machine, automatic grain	W. & T. Schnebly	Hackensack, N. J	June 8, 1858.
19466	Weighing mechanism applied to the carts of coal dealers and others, construction and arrangement of the.	John Hartman, jr., assignor to John Hartman, sr.	Philadelphia, Pa	Feb. 23, 1858.
19263	Winch, safety	William Riker	Penn Yan, N. Y	Feb. 2, 1858.

CLASS XIII.—GRINDING-MILLS AND MILL-GEARING, *including grain-mills, mechanical movements, horse-power, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19735	Belt-coupling	Samuel Green, assignor to Silas B. Green	Grand Rapids, Mich Rochester, N. Y	Mar. 23, 1858.
19318	Belting, lap-joints for	Henry Underwood	New York, N. Y	Feb. 9, 1858.
21596	Belting-machine	John H. Cheever	New York, N. Y	Sept. 28, 1858.
20564	Belting, round, manufacture of	Marshall Jewell	Hartford, Conn	June 15, 1858.
19272	Belts, shifting	Morris Wells	Brooklyn, N. Y	Feb. 2, 1858.
19892	Bolting, dusting, and separating the ground material, machinery for.	Joel Woodward	Philadelphia, Pa	April 6, 1858.
19024	Bolting flour	David Geib	Mifflintown, Pa	Jan. 5, 1858.
21277	Bolting flour, machinery for	Benjamin D. Sanders	Holliday's Cove, Va	Aug. 24, 1858.
19303	Bolts, flour	Samuel G. McMurtry	West Urbana, Ill	Feb. 9, 1858.
21009	Bran-duster	S. B. Manning	Allegheny, Pa	July 27, 1858.
	Cleaning and polishing coffee, apparatus for. (See Class I, letter C.)			
	Cleaning grain, machine for. (See Class I, letter G.)			
21061	Crank, substitute for the	Aaron Brooks	Crawford county, Ind	Aug. 3, 1858.
21030	Crushing and grinding the same, feeding quartz, &c., to machines for.	C. P. Stanford	Mount Gregory, Cal	July 27, 1858.
20601	Dress, hulling-stone	John A. Wilson	Dover, N. J	June 15, 1858.
22006	Flour-cooler	Horace B. Allis	Little Rock, Ark	Nov. 9, 1858.
22116	Gearing	G. P. Ganster	Reading, Pa	Nov. 23, 1858.
22118	Gearing	E. A. Goodes	Philadelphia, Pa	Nov. 23, 1858.
20672	Gearing for machinery	William Webster	Jefferson county, W. Ter	June 22, 1858.
21245	Grain, cooling and ventilating, apparatus for	Charles D. Clark	Chicago, Ill	Aug. 24, 1858.
20422	Grain, machine for cleaning	I. G. Goshon and W. Bowers	Mercersburg, Pa Chambersburg, Pa	June 1, 1858.
20399	Grain, machine for elevating, measuring, registering, and bagging.	Peleg Barker	North Adams, Mich	June 1, 1858.
21144	Grain, machine for fanning and assorting	R. Nutting	Randolph, Vt	Aug. 10, 1858.
22359	Grain, machine for separating garlic from	P. C. Fritz	Barrytown, N. Y	Dec. 21, 1858.
	Grain-measure. (See Class VIII, letter M.)			

	Grain-separator. (See Class I.)			
20490	Grinding and cutting, machine for	Franklin B. Hunt	Richmond, Va	June 8, 1858.
19688	Grinding, machine for cutting the leaves from the sugar-cane preparatory to.	Calvin Dickey	Mercersburg, Pa	Mar. 23, 1858.
20282	Grinding, toothed cylinder for	Benjamin Mackerley	New Petersburg, Ohio	May 18, 1858.
20279	Horse-power	B. F. Love and J. H. Frazee	Shelbyville, Ind	May 18, 1858.
20257	Horse-power	Jeremiah Darling	Cincinnati, Ohio	May 18, 1858.
20461	Horse-power	T. H. and J. E. and J. F. and R. J. Wilson	Athens, Ga	June 1, 1858.
20421	Horse-power	Micah Gillam	Troy, Pa	June 1, 1858.
20978	Horse-power	W. Rider, assignor to himself and J. B. Sweetland.	Almont, Mich	July 20, 1858.
21495	Horse-power	Gorges Hely	Rochester, Wis	Sept. 14, 1858.
22079	Horse-power draught	J. H. Jones	Rockton, Ill	Nov. 16, 1858.
22360	Horse-power for driving reciprocating saws	Edward M. Fuller	Salisbury, N. Y	Dec. 21, 1858.
19976	Horse-power, gearing for	Cyrus Avery	Tunkhannock, Pa	April 20, 1858.
20368	Horse-power, governor for	Lea Pusey	Wilmington, Del	May 25, 1858.
19769	Horse-power machine	James Grant	Rochester, N. Y	Mar. 30, 1858.
21032	Horse-power machine	James A. Stone	Rochester, N. Y	July 27, 1858.
19408	Horse-powers, &c., wheel and axle attachment of.	George E. Burt and George F. Wright	Harvard, Mass	Feb. 23, 1858.
	Hulling rice. (See Class I, letter H.)			
21474	Journal-boxes	H. H. Thayer, assignor to J. A. Woodbury and S. A. Woods.	Sandwich, Mass	Sept. 7, 1858.
19984	Meal, cooling and drying	John Deuchfield	Oswego, N. Y	April 20, 1858.
22003	Mechanical movement	Joseph H. Davis	Woburn, Mass	Nov. 2, 1858.
19807	Mill	Joel Woodward	Philadelphia, Pa	Mar. 30, 1858.
19386	Mill-bush	George Strause	Boonsboro' Md	Feb. 16, 1858.
19727	Mill-bush	John Wells	Baltimore, Md	Mar. 23, 1858.
19421	Mill, cider	M. W. Helton	Bloomington, Ind	Feb. 23, 1858.
20220	Mill, cider	Michael Stevens	Lucas, Ohio	May 11, 1858.
21874	Mill, cider	John Eiberweiser	Cincinnati, Ohio	Oct. 26, 1858.
20208	Mill, corn	Charles Leavitt	Cleveland, Ohio	May 11, 1858.
20121	Mill, corn and cob	Benjamin Winter	Buckingham, C. H., Va	April 27, 1858.
19016	Mill, flouring	Edwin Clark	Lancaster, Pa	Jan. 5, 1858.
20329	Mill, flouring	Edwin Clark	Lancaster, Pa	May 25, 1858; antedated Feb. 2, 1858.
20370	Mill, flouring	Christopher Rands	Peoria, Ill	May 25, 1858.
20972	Mill, flouring	Samson Wolff	Vicksburg, Miss	July 20, 1858.
21062	Mill, flouring	R. J. Brown	Perry, Pa	Aug. 3, 1858.

List of patents for inventions, 1858—CLASS XIII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22384	Mill, flouring	Ira Speight	Woodville, Miss	Dec. 21, 1858.
20784	Mill for cutting, crushing, and expressing the juice from sugar-cane.	J. J. Fearrington	Pittsborough, N. C.	July 6, 1858.
20102	Mill for grinding paint	Chauncey Thomas	West Newbury, Mass	April 27, 1858.
19541	Mill for reducing substances	Thomas Blanchard	Boston, Mass	Mar. 9, 1858.
21340	Mill for sugar-cane	Jeremiah Howard	New York, N. Y	Aug. 31, 1858.
20288	Mill for treating Chinese sugar-cane	Henry Meyer	Bridgeton, N. J	May 18, 1858.
19251	Mill, grain	James J. Johnston	Allegheny, Pa	Feb. 2, 1858.
19441	Mill, grain	Philander Perry	Troy, N. Y	Feb. 23, 1858.
19093	Mill, grinding	Burton W. Leonard	Bridgeport, Conn	Jan. 12, 1858.
19289	Mill, grinding	H. V. Duryea	Fulton, N. Y	Feb. 9, 1858.
19521	Mill, grinding	Hosea Southwick	Little Cooley, Pa	Mar. 2, 1858.
19587	Mill, grinding	Gelston Sanford	Poughkeepsie, N. Y	Mar. 9, 1858.
19559	Mill, grinding	R. D. Granger	Philadelphia, Pa	Mar. 9, 1858.
19826	Mill, grinding	David E. Breinig	Philadelphia, Pa	April 6, 1858.
20310	Mill, grinding	S. Vascow and A. Guirand	Cincinnati, Ohio	May 18, 1858.
20692	Mill, grinding	B. A. Beardsley	Waterville, N. Y	June 29, 1858.
20734	Mill, grinding	William Scarlett	Kenosha, Wis	June 29, 1858.
20941	Mill, grinding	Gerritt Erkson	New York, N. Y	July 20, 1858.
19060	Mill, hominy	Ezra Fahrney, assignor to John Donaldson	Deep River, Iowa	Jan. 5, 1858.
19297	Mill, hominy	Philip Homrighaus	Royalton, Ohio	Feb. 9, 1858.
19691	Mill, hominy	T. E. Dake and J. W. Teal	Indianapolis, Ind	Mar. 23, 1858.
20327	Mill, hominy	James M. Clark	Lancaster, Pa	May 25, 1858.
21184	Mill pick-holder	J. P. Brady	Mount Joy, Pa	Aug. 17, 1858.
19696	Mill, pug, grinding attachment to	D. H. Gage	Dover, N. H.	Mar. 23, 1858.
20012	Mill, quartz	L. W. Williams	Nevada City, Cal	April 20, 1858.
20161	Mill, smut	J. C. Kelly and A. Frost	Edinburg, Ind	May 4, 1858.
21199	Mill-spindles, mode of securing and adjusting the steps of.	Gideon Hotchkiss	Windsor, N. Y.	Aug. 17, 1858.
20083	Mill-stone dress	Gabriel Natcher	Indianapolis, Ind	April 27, 1858.
20084	Mill-stone dress	Gabriel Natcher	Indianapolis, Ind	April 27, 1858.
20029	Mill-stone dress	Franklin Bellinger	Lockport, N. Y	April 27, 1858.

20462	Mill-stone dress	Samson Wolff	Vicksburg, Miss	June 1, 1858.
20950	Mill-stone dress	G. W. Loy	Jefferson, Texas	July 20, 1858.
22356	Mill stones, balancing	John Fairclough	Louisville, Ky.	Dec. 21, 1858.
19273	Mill-stones, dressing	Isaac Whissen	Mount Jackson, Va	Feb. 2, 1858.
19156	Mill-stones, feeding	Winser Smith	Princeton, Iowa	Jan. 19, 1858.
21330	Mill-stones, hanging	J. A. Forsman	Cincinnati, Ohio	Aug. 31, 1858.
20818	Mill-stones, ventilating	L. Racine	Joliet, Ill	July 6, 1858.
20124	Mill, sugar	Frederick E. Dake, assignor to himself and Thomas E. Hunt.	Indianapolis, Indiana	April 27, 1858.
21601	Mill, sugar	Samuel L. Denney	Lancaster county, Pa	Sept. 28, 1858.
19545	Mill, sugar and cider	Hamilton J. Cox	Warren county, Ohio	Mar. 9, 1858.
20290	Mills, chasing	Charles Moore	Trenton, N. J	May 18, 1858.
20540	Mills, grist, machine for gathering the toll in	Joseph Bartholomew	Dundee, N. Y	June 15, 1858.
19605	Mills, hulling, dress of stones for	D. Collins, assignor to himself and W. L. Hanford.	Jersey City, N. J	Mar. 9, 1858.
19302	Mills, scrapers for grinding	Thomas E. Little	Janesville, Wis	Feb. 9, 1858.
20384	Motion, changing rotary into reciprocating	S. L. Wiegand	Philadelphia, Pa	May 25, 1858.
19848	Motion, converting reciprocating into rotary	Forest H. Harwood	Rushville, N. Y	April 6, 1858.
21065	Motion, converting reciprocating into rotary	Isaac Chapman	New York, N. Y.	Aug. 3, 1858.
20980	Motion, converting rotary into reciprocating	J. J. Weeks, assignor to Susan Weeks	Locust Valley, N. Y	July 20, 1858.
19726	Motion, reciprocating and rotary	Isaac Van Doren	Somerville, N. J.	Mar. 23, 1858.
19586	Motion, reciprocating, mode of producing vertical and horizontal.	Matthias Steigers	St. Louis, Mo	Mar. 9, 1858.
22445	Motion, rotary, device for transmitting	Henry Morris	West Philadelphia, Pa	Dec. 28, 1858.
21934	Motion, rotary, mechanism for transmitting	Gerard Bancker and A. Campbell	New York, N. Y.	Nov. 2, 1858.
21133	Motive-power, apparatus for heating and cooling air to be used as a.	W. Hidden and J. Reeves	New York, N. Y.	Aug. 10, 1858.
20701	Motive-power, mode of obtaining	Peter Daniel, deceased John F. Dunnington, administrator	Franklin county, Ky Washington, D. C	June 29, 1858.
19183	Power, machinery for obtaining and preserving, from trains while passing railway stations.	Erastus T. Bussell	Shelbyville, Indiana	Jan. 26, 1858.
21611	Powers, mechanical	Elisha Matteson	Troy, N. Y	Sept. 28, 1858.
20881	Pulleys, machine	Caleb S. Hunt	Bridgewater, Mass	July 13, 1858.
21156	Rice, machine for pounding	John T. Tallon	New Orleans, La	Aug. 10, 1858.
21913	Rice, machinery for pearling, polishing, and finishing.	R. P. Walker	New York, N. Y	Oct. 26, 1858.
22337	Rice, mode of cleaning	Wilson Ager	Rohrsburg, Penn	Dec. 21, 1858.
19637	Separator and cleaner, grain	S. Howes, and G. E. Throop	Silver Creek, N. Y Chicago, Ill.	Mar. 16, 1858.

List of patents for inventions, 1858—CLASS XIII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19629	Separator and smut-machine	Daniel M. Donehoo	Hookstown, Penn	Mar. 16, 1858.
	Separator, grain. (See Class I, letter G.)			
	Separator, wheat. (See Class I, letter W.)			
20566	Shafting, adjustable hanger for	William Johnson	Lambertville, N. J.	June 15, 1858.
20634	Shafting, coupling-box for	W. B. Dunning	Geneva, N. Y	June 22, 1858.
21640	Shafting, hangers and boxes for	Frederick W. Howe, assignor to the Newark Machine Company.	Newark, N. J	Sept. 28, 1858.
19340	Shafting, hangers for	William B. Bement	Philadelphia, Penn	Feb. 16, 1858.
20800	Shafts without using a crank, rotating	Simon Ingersoll	Greenwich, Conn	July 6, 1858.
20104	Smut and grain-cleaning machine	Jeremiah Tobin	Newark, N. J	April 27, 1858.
19860	Smut-machine	Samuel B. Manning	Allegheny, Penn	April 6, 1858.
20420	Smut-machine	John German, jr., and S. R. Perkins	Smithfield, Mich. Pontiac, Mich.	June 1, 1858.
20521	Smut-machine	D. M. Vance	Urbana, Ohio	June 8, 1858.
21202	Smut-machine	J. N. Lester	Oswego, N. Y	Aug. 17, 1858.
21563	Smut-machine	Hiram Hopkins	Evansville, Ia	Sept. 21, 1858.
22128	Smut-machine	Hugh Marshman and C. F. Foulke	Carlisle, Iowa	Nov. 23, 1858.
22395	Smut-machine	J. A. Woodward	Burlington, Iowa	Dec. 21, 1858.
20683	Stuffing-boxes	H. F. Read, assignor to himself and Samuel J. Burr.	Brooklyn, N. Y	June 22, 1858.
21139	Wheat, cleaning, machine for	J. Lantz and J. Russell	Wheeling, Va	Aug. 10, 1858.
20318	Wheels, drawing, for portable steam engines and agricultural implements, &c.	G. W. Barnett	Springfield, Ohio	May 25, 1858.

CLASS XIV.—LUMBER, *including machines and tools for preparing and manufacturing, such as sawing, planing, mortising, shingle and stave, carpenters' and coopers' implements.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22195	Auger for wood	Martin Norris	Broad Brook, Conn	Nov. 30, 1858.
22394	Auger shanks, method of attaching cutting-lips to	Norman S. White and Aaron Denio	Shaftsbury, Vt	Dec. 21, 1858.
21179	Augers, method of securing the centre of the spindles of.	Charles L. Barnes	New York, N. Y	Aug. 17, 1858.
19829	Augers, &c., method of attaching expansible cutting lips to.	N. Clare and J. Quigley	Malden, N. Y	April 6, 1858.
20261	Barrel-head machine	Benjamin Fitch	Mooers, N. Y	May 18, 1858.
19066	Barrel-head machinery, circular cutting, method of connecting the beveling knives in.	William Bevard	Muscatine, Iowa	Jan. 12, 1858.
19509	Barrel-heads, machine for cutting	William Manning	Rouse's Point, N. Y	Mar. 2, 1858.
19510	Barrel-heads, machine for cutting	James H. Mattison	Scriba, N. Y	Mar. 2, 1858.
20864	Barrel-heads, machine for cutting	A. H. Crozier	Oswego, N. Y	July 13, 1858.
20962	Barrel-heads, machine for cutting both bevels simultaneously on.	A. D. Stewart	Bennington, Vt	July 20, 1858.
21117	Barrels, machine for chamfering and crozing	A. H. Crozier and C. Carrier	Oswego, N. Y	Aug. 10, 1858.
21769	Barrels, machine for chamfering and crozing	James H. Mattison	Scriba, N. Y	Oct. 12, 1858.
21718	Barrels, machine for crozing, chamfering, and beveling.	William M. Arnall, assignor to himself, O. P. Smith, and A. C. Jordan.	Sperryville, Va	Oct. 5, 1858.
21725	Barrels, &c., machine for forming	Jacob Rees, assignor to Jonah L. Rees	Elk Horn, Ill	Oct. 5, 1858.
19595	Bench-hook	E. B. White	Nashua, N. H	Mar. 9, 1858.
21351	Bending felloes, machine for	John L. Mann	Ravenna, Ohio	Aug. 31, 1858.
19480	Bending shovel-handles, method of	Thomas Blanchard	Boston, Mass	Mar. 2, 1858.
22474	Bit, expanding	Harley Stone, assignor to P. P. Todd	Blackstone, Mass	Dec. 28, 1858.
21597	Bit, expansive	William A. Clark	Bethany, Conn	Sept. 28, 1858.
19028	Bit-holder	B. B. Hill and S. W. Adams	Chicopee, Mass	Jan. 5, 1858.
20010	Bit-holder	David H. Whittemore	Worcester, Mass	April 20, 1858.
21160	Bit, variable boring	William Tucker	Gloucester, R. I	Aug. 10, 1858.
20192	Bits, expansive, method of seating the movable cutter in.	W. A. Clark	Bethany, Conn	May 11, 1858.
	Boards, machine for measuring the superficies of. (See Class VIII, letter M.)			

List of patents for inventions, 1858—CLASS XIV.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20779	Boring-machine	L. A. Dole	Salem, Ohio	July 6, 1858.
22379	Boring wood, machine for	George F. Rice	Worcester, Mass.	Dec. 21, 1858.
20495	Brace, device for attaching bits to the	Samuel U. King	Windsor, Vt	June 8, 1858.
22101	Bungs, machine for cutting	James Lyon and George H. Brady, assignors to themselves and Thomas J. Falls, jr.	New York, N. Y.	Nov. 16, 1858.
19700	Carpenters' brackets, &c. Holding-bolt for, carpenters' rules. (See Class VIII, letter R.)	John W. Kennedy	Plainfield, Conn	Mar. 23, 1858.
21247	Carpenters' work-bench	Justin Devoge	Randolph, Pa	Aug. 24, 1858.
20918	Chair-backs, machine for manufacturing	S. E. Foster, assignor to the Walter Heywood Chair Company.	Fitchburg, Mass	July 13, 1858.
20913	Clamp, floor	H. C. Wight	Worcester, Mass	July 13, 1858.
19982	Cutters, rotary, sharpening device for	Edward Conroy	Boston, Mass	April 20, 1858.
19035	Dovetailing rotary cutters in their heads, method of.	G. H. Mallory	New York, N. Y	Jan. 5, 1858.
19406	Dovetailing tool	G. W. Billings	Cleveland, Ohio	Feb. 23, 1858.
21503	Dovetails, machine for cutting	T. E. and Alexander, and Edwin King	Cherry Valley, Ohio	Sept 14, 1858.
22369	Hoop-lock	Edwin A. Jefferey	Corning, N. Y	Dec. 2, 1858.
21507	Hoops, machine for notching and trimming	Sanford Littlefield	West Troy, N. Y	Sept. 14, 1858.
21508	Hoops, wooden, machine for cutting and finishing the locks of.	Hiram Littlejohn	Troy, N. Y	Sept. 14, 1858.
20345	Irregular forms, cutter-head and table-rest for cutting.	J. P. Grosvenor	Lowell, Mass	May 25, 1858.
20505	Irregular forms, machine for cutting	W. N. Oakes	Dana, Mass	June 8, 1858.
21379	Irregular forms, machine for cutting	H. D. Stover	Boston, Mass	Aug. 31, 1858.
22302	Irregular forms, machine for cutting	Z. F. Nance	Richmond, Va	Dec. 14, 1858.
21861	Joiner's squares, device for adjusting to a right angle the.	Linus Yale, jr	Philadelphia, Pa	Oct. 19, 1858.
22058	Lath-machine	Josiah Black	Memphis, Tenn	Nov. 16, 1858.
22449	Lath-machine	Jacob Pefley	Bainbridge, Ind	Dec. 28, 1858.
21675	Lath, machine for cutting	Reuben Haynes	Oberlin, Ohio	Oct. 5, 1858.
20292	Lath-machines, method of feeding the bolt in	James Nevison	Morgan, Ohio	May 18, 1858.
20323	Lathe	J. T. Bunce	East Haddam, Conn	May 25, 1858.

20166	Lathe, automatic	John McNary	Brooklyn, N. Y	May 4, 1858.
	Lathe, burnishing attachment for. (See Class II, letter B.)			
21232	Lathe, chuck for	S. Goodfellow, assignor to himself and John Fish.	Troy, N. Y	Aug. 17, 1858.
20298	Lathe-dog	Nathan N. Phillips	New York, N. Y	May 18, 1858.
21240	Lathe for turning beaded work	Frederick Baldwin	South Wardsboro', Vt	Aug. 24, 1858.
22447	Lathe for turning masts, &c	Peter H. Niles	Boston, Mass	Dec. 28, 1858.
20705	Lathe for turning oval frames	J. and W., and G. Gardner	New York, N. Y	June 29, 1858.
19056	Lathe for turning wood	A. N. Wilcox	Watervliet, N. Y	Jan. 5, 1858.
22043	Lathe for turning wood	Albin Warth	Stapleton, N. Y	Nov. 9, 1858.
19395	Lathe, rest attachment for	Daniel White, jr	Lowell, Mass	Feb. 16, 1858.
19051	Lathe, turning	William D. Sloan	New York, N. Y	Jan. 5, 1858.
20956	Lathe, turning, method of feeding the tool-carriage in.	Adam Rennie	Binghamton, N. Y	July 20, 1858.
20745	Lumber, machine for resawing	E. H. Titus and John Sharp	Wilkesbarre, Pa Phillipsburgh, Pa	June 29, 1858.
22386	Mitre-box	Asa F. Tarr	Rockport, Mass	Dec. 21, 1858.
21194	Mitres, machine for cutting	S. W. Hall	Williamsport, Pa	Aug. 17, 1858.
22222	Mortises, dovetails, machine for cutting	Solander Withington	St. Louis, Mo	Nov. 30, 1858.
21783	Mortising-machines, mode of reversing the chisel in.	Frederick Stamm	Lancaster, Pa	Oct. 12, 1858.
19492	Moulding for sash, machine for cutting the	O. K. Collins	Murfreesboro', Tenn	Mar. 2, 1858.
20824	Mouldings, arrangement of devices for planing	W. B. Smith	Lowell, Mass	July 6, 1858.
20493	Plane, bench	H. Lee Kendall	Baltimore, Md	June 8, 1858.
19130	Plane, crozing	S. G. Crane	Rochester, N. Y	Jan. 19, 1858.
19539	Plane, floor	Charles E. Barlow	Philadelphia, Pa	Mar. 9, 1858.
19359	Plane-iron to its stock, method of securing the	P. A. Gladwin	Boston, Mass	Feb. 16, 1858.
20615	Plane-irons, device for adjusting	Leonard Bailey	Winchester, Mass	June 22, 1858.
19620	Plane, joiner's beveling	T. A. Chandler	Rockport, Ill.	Mar. 16, 1858.
21311	Plane, bench, method of securing plane-irons to the stocks of.	Leonard Bailey	Winchester, Mass	Aug. 31, 1858.
19619	Planing blind slats, machine for	Charles Carlisle and Leonard Worcester	Woodstock, Vt	Mar. 16, 1858.
21782	Planing-cutter, rotary	John Sperry	New York, N. Y	Oct. 12, 1858.
21618	Planing irregular surfaces, machine for	J. H. Nelson	Oskaloosa, Iowa	Sept. 28, 1858.
20527	Planing-machine	James A. Woodbury	Winchester, Mass	June 8, 1858.
19702	Planing-machines, method of clamping polygonal pieces in.	Joseph W. Killam	East Wilton, N. H	Mar. 23, 1858.

List of patents for inventions, 1858—CLASS XIV.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20762	Planing-machines, rotary, device for securing cutters in.	S. F. Forman, assignor to Henry Z. Drew	New York, N. Y	June 29, 1858.
20999	Planing-machines, rotary, stock for holding the cutters in.	Ivers Gibbs	Worcester, Mass	July 27, 1858.
21720	Planing wood, machine for	C. B. Cottrell, assignor to himself and Nathan Babcock.	Westerly, R. I	Oct. 5, 1858.
	Plumb and level indicator, attaching the plumb line to a. (See Class VIII.)			
19110	Ratan-machine, device for retaining in proper position the splitting knife in.	Geo. S. Colburn, assignor to Cyrus Wakefield.	South Reading, Mass	Jan. 12, 1858.
	Saw-filing machine. (See Class II.)			
19454	Saw-mill	Charles Strong	Hartford, Vt	Feb. 23, 1858.
21588	Saw-mill	John Pemberton, deceased, Lemuel Pemberton, administrator of.	Jonesboro', Ind	Sept. 21, 1858.
22268	Saw-mill	Samuel R. Smith and Philander P. Lane, assignors to Lane & Bodley.	Cincinnati, Ohio	Dec. 7, 1858.
20910	Saw-mill block	Hiram Wells	Florence, Mass	July 13, 1858.
20660	Saw-mills, method for clamping and laterally feeding the log in.	J. C. Past	Wilmington, Del	June 22, 1858.
20147	Sawing, cross-cut, feeding device for	Jeremiah Darling	Cincinnati, Ohio	May 4, 1858.
19099	Sawing, cross-cut, horse-power machine for	Ezra and John Z. Perin	Connellsville, Ind	Jan. 12, 1858.
19128	Sawing lumber, device for adjusting two circular saws to the same plane in.	Edwin P. Cavett	St. Louis, Mo	Jan. 19, 1858.
19145	Sawing machine	John Mays	Yazoo City, Miss	Jan. 19, 1858.
19536	Sawing-machine	Thomas J. Alexander	Westerville, Ohio	Mar. 9, 1858.
19644	Sawing-machine	H. H. Low	Galena, Ill	Mar. 16, 1858.
19906	Sawing-machine	John L. Beadle	Marengo, N. Y	April 13, 1858.
20184	Sawing-machine	H. S. Vrooman, assignor to Henry Albro	New York, N. Y Covington, Ky	May 4, 1858.
20870	Sawing-machine	H. Featherstone and P. Engmann	New Orleans, La	July 13, 1858.
20995	Sawing-machine	W. H. Doane and C. Mason	Chicago, Ill	July 27, 1858.
20886	Sawing-machine, carriage for	A. C. Miller	Morgantown, Va	July 13, 1858.

19801	Sawing-machine, cross-cut	George Telford	Pike, N. Y	Mar. 30, 1858.
19870	Sawing-machine, cross-cut	H. H. Potter	Carthage, N. Y	April 6, 1858.
19983	Sawing-machine, cross cut	R. M. Cosby	Indianapolis, Ind	April 20, 1858.
21177	Sawing-machine, cross-cut	John T. Armstrong	Jacksontown, Ohio	Aug. 17, 1858.
21256	Sawing-machine, cross cut	Albert Heth and Gaylon Hall	Adams Centre, N. Y	Aug. 24, 1858.
21482	Sawing-machine, endless sectional	Harvey Brown	New York, N. Y	Sept. 14, 1858.
21200	Sawing-machine, reciprocating, for sawing plank.	William C. Huntington	Newark, N. J	Aug. 17, 1858.
20696	Sawing-machine, rotary	Harvey Brown	New York, N. Y	June 29, 1858.
19168	Sawing-machine, scroll	Ulysses B. Vidal	Philadelphia, Pa	Jan. 19, 1858.
20900	Sawing-machine, scroll	E. Sirret, jr	Buffalo, N. Y	July 13, 1858.
19166	Sawing-machines, circular, arrangement of devices to feed and gig back the carriage in.	Hiram Wells	Florence, Mass	Jan. 19, 1858.
20150	Sawing-machines, circular, device for governing lateral motion of carriage in gigging back in.	William M. Ferry, jr	Ferrysburgh, Mich	May 4, 1858.
21345	Sawing-machines, circular, method of attaching the spreader to saws of.	William D. Leavitt	Cincinnati, Ohio	Aug. 31, 1858.
22107	Sawing-machines, felloe, device for clamping and feeding the bolt in.	Derwin E. Butler	Chesterfield, Ohio	Nov. 23, 1858.
19774	Sawing-mill	William Hawkins and William C. Clary	Milwaukie, Wis	Mar. 30, 1858; reissued May 11, 1858.
21838	Sawing. re, machine	William D. Leavitt	Cincinnati, Ohio	Oct. 19, 1858.
19692	Sawing staves, machine for	Harry H. Evarts	Chicago, Ill	Mar. 23, 1858.
20135	Saws, band, device for sheltering from dust the lower carrying pulley of.	James Balla	Richmond, Ind	May 4, 1858.
21651	Saws, circular, deflecting plates for	J. D. C. Carpenter	Cincinnati, Ohio	Oct. 5, 1858.
22252	Saws, circular, guard for	Reuben S. Janes	Bethel, Vt	Dec. 7, 1858.
19978	Saws, dressing	Job Batchelor	Camden, N. Y	April 20, 1858.
20313	Saws, hand, devices attached to, for squaring and marking.	H. Smith, assignor to H. Disston	Camden, N. J	May 18, 1858.
20337	Saws, hand, leveling device attached to	H. Disston and T. L. Morss	Philadelphia, Pa	May 25, 1858.
	Saws, machine for grinding. (See Class II.)			
	Saws, reciprocating, horse-power for driving. (See Class XIII, letter H.)			
19300	Saws, reciprocating, method of straining	G. P. Ketcham, jr	Bloomington, Ind	Feb. 9, 1858.
19893	Saws, reciprocating scroll, method of guiding	J. C. Clime, assignor to himself and S. Rhodes.	Philadelphia, Pa	April 6, 1858.
19534	Saws, scroll, method of operating	Henry F. Shaw, assignor to himself and Moses H. Gragg.	Boston, Mass	Mar. 2, 1858.

List of patents for inventions, 1858—CLASS XIV.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19033	Shingle-machine	Robert Law	Portage City, Wis	Jan. 5, 1858.
19136	Shingle-machine	George Darby and J. E. Young	Augusta, Me	Jan. 19, 1858.
19199	Shingle-machine	Elijah Morgan	Morgantown, Va	Jan. 26, 1858.
19233	Shingle-machine	David M. Boyd	Indianapolis, Ind	Feb. 2, 1858.
19293	Shingle-machine	William Gregor	New York, N. Y	Feb. 9, 1858.
19349	Shingle-machine	George Craine	Fairfield, Iowa	Feb. 16, 1858.
20638	Shingle-machine	J R. Hall	Brunswick, Me	June 22, 1858.
20876	Shingle-machine	E. Hall and J. F. Stewart	East Randolph, N. Y	July 13, 1858.
21490	Shingle-machine	Augustus Day	Detroit, Mich	Sept. 14, 1858.
21744	Shingle-machine, circular sawing	Jonathan Creager	Cincinnati, Ohio	Oct. 12, 1858.
20704	Shingle-machine, rotary	K. Freeman	Fond du Lac, Wis	June 29, 1858.
20174	Shingle-machines, device by which the width of the bolt checks the feed in.	A. C. Sawyer	Canton, N. Y	May 4, 1858.
20501	Shingle-machines, device for operating the bolt to obtain taper in.	Elijah Morgan	Morgantown, Va.	June 8, 1858.
19193	Shingle-machines, device for shifting the bolt to effect the taper in.	W. D. Guseman	Morgantown, Va.	Jan. 26, 1858.
20553	Shingle-machines, device in feed-motion of	Elbridge Drake	Gardiner, Me	June 15, 1858.
19275	Shingle-machines, method of feeding the bolt in	Twentyman Wood	Greenwich, Conn	Feb. 2, 1858.
22350	Shingles	Henry T. Clay	Gardiner, Me	Dec. 21, 1858.
21453	Shingles from the log, method of manufacturing.	C. L. Story	Owensboro', Ky	Sept. 7, 1858.
22083	Shingles, machine for sawing and planing	G. H. Mallory	New York, N. Y	Nov. 16, 1858.
19167	Shingles, method of butting and pointing the bolt to be sawed into.	M. D. and A. Wells	Morganton, Va	Jan. 19, 1858.
21886	Spoke-machine	Luke L. Knight and D. H. Rice	Barre, Mass	Oct. 26, 1858.
20459	Spoke shave	C. H. Weston	Nashua, N. H	June 1, 1858.
20855	Spoke-shave	Leonard Bailey	Winchester, Mass	July 13, 1858.
20642	Spokes in hubs, machine for setting	A. Hafer and G. Wilkinson	Colon, Mich.	June 22, 1858.
21830	Stave-jointer	William Halderman	Freeport, Ill	Oct 19, 1858.
19064	Stave-machine	L. B. Averill	Barre, Vt	Jan. 12, 1858.

19308	Stave-machine	E. Moore, William Clark, and James Lindsey.	Shelbyville, Ind	Feb. 9, 1858.
19444	Stave-machine	William Robinson	Augusta, Ga.	Feb. 23, 1858.
20737	Stave-machine	W. M. Sloane	Buffalo, N. Y	June 29, 1858.
19853	Stave-machines, method of holding and feeding the bolt in.	Abraham Hupp	Lancaster, Ohio	April 6, 1858.
21856	Staves from the bolt, machine for cutting	William Steele	Wheeling, Va	Oct. 19, 1858.
22231	Staves from the bolt, machine for cutting	Isaac W. Forbes	Jefferson, Wis	Dec. 7, 1858.
19760	Staves, rotary reciprocating knives for smoothing.	William B. Dunning	Geneva, N. Y	Mar. 30, 1858.
21512	Tenoning-machine	John McCreary	Delaware, Ohio	Sept. 14, 1858.
19292	Tenons on spokes, machine for cutting	Mahlon Gregg	Philadelphia, Pa.	Feb. 9, 1858.
19806	Tonguing and grooving, rotary cutters for	James A. Woodbury	Winchester, Mass	Mar. 30, 1858.
20866	Tool for cutting cylindrical or tapering sticks	George Davies	Duquesne, Pa	July 13, 1858.
22430	Tool for slotting clothes-pins	John Humphrey	Keene, N. H	Dec. 28, 1858.
20693	Tool-handle, socket for	William Bennett	New York, N. Y	June 29, 1858.
22167	Turning hubs, arrangement of cutters for	George Cooper	Berlin, Wis	Nov. 30, 1858.
21443	Turning hubs, machine for	Alexander Rickart	Scholarie, N. Y	Sept. 7, 1858.
20344	Turning irregular forms, machine for	N. J. Glover	Waveland, Ind	May 25, 1858.
22400	Turning tapering twists on wood, machine for	Reuben K. Huntoon, assignor to himself and Jacob B. Rand.	Concord, N. H	Dec. 21, 1858.
19711	Turning tool-handles, &c., machine for	Hiram Plumb	Honesdale, Pa	Mar. 23, 1858.
21590	Veneers, machine for cutting	Gilbert Bishop Assignor to Edward White	Fairfield, Conn New York, N. Y	Sept. 21, 1858.
19243	Wheelwright's-machine	Nathaniel T. Edson	New Orleans, La	Feb 2, 1858.
19928	Wheelwright's-machine	Samuel Holl	Reading, Pa.	April 13, 1858.
21002	Wheelwright's-machine	William Hinds	Otsego, N. Y	July 27, 1858.
22193	Wood, angular pieces of, machine for cutting curvilinear surfaces on.	George Muller	Sacramento, Cal	Nov. 30, 1858.
19307	Wood, clamp for holding rectangular pieces of, while being bored, tapped, &c.	Henry Miller	Grafton, Va	Feb. 9, 1858.
20137	Wood, machine for bending	Thomas Blanchard	Boston, Mass	May 4, 1858.
19867	Wood, machine for splitting	Franz Noette	Brooklyn, N. Y	April 6, 1858.
19538	Wood of unequal lengths at once, method of bending several pieces of.	Heman A. Barnard	Moline, Ill	Mar. 9, 1858.
20016	Wooden dowel-pins, machine for making	Amos H. Boyd, assignor to Samuel F. Chase.	Saco, Me	April 20, 1858.
21961	Wooden screws, die for cutting	W. O. Hickock	Harrisburg, Pa	Nov. 2, 1858.
21960	Wooden screws, tap for cutting	W. O. Hickock	Harrisburg, Pa	Nov. 2, 1858.

CLASS XV.—STONE AND CLAY MANUFACTURES, *including machines for pottery, glass-making, brick-making, dressing and preparing stone, cements, and other building materials.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22129	Bottles, moulds for making	John L. Mason	New York, N. Y	Nov. 23, 1858.
	Bottles, Screw-neck. (See Class XXII, letter B)			
21831	Bottles, &c., apparatus for making glass stoppers for.	Thomas R. Hartell	Philadelphia, Pa	Oct. 19, 1858.
21744	Brick, fire, manufacture of	J. Ostrander and J. S. Heartt	Troy, N. Y	Oct. 12, 1858.
20146	Brick-kiln	John W. Crary	New Orleans, La	May 4, 1858.
19236	Brick-machine	Charles Connell	Philadelphia, Pa	Feb. 2, 1858.
19366	Brick-machine	George O. Houck and Henry Gore	Springfield, Ohio	Feb. 16, 1858.
19470	Brick-machine	Daniel Lombard, assignor to himself and George F. Richardson.	Boston, Mass	Feb. 23, 1858.
19792	Brick-machine	J. L. Ransom	Charleston, S. C	Mar. 30, 1858.
20109	Brick-machine	J. Z. A. Wagner	Philadelphia, Pa	April 27, 1858.
20107	Brick-machine	Stephen Ustick	Philadelphia, Pa	April 27, 1858.
20594	Brick-machine	George L. Smull	Meadville, Pa	June 15, 1858.
20536	Brick-machine	Gerard Bancker	New York, N. Y	June 15, 1858.
20612	Brick-machine	Francis Allen	Boston, Mass	June 22, 1858.
21025	Brick-machine	S. C. Salisbury	Milwaukie, Wis	July 27, 1858.
21186	Brick-machine	John W. Crary	New Orleans, La	Aug. 17, 1858.
21458	Brick-machine	Henry White	Cleveland, Ohio	Sept. 7, 1858.
21545	Brick-machine	John Booth	Mobile, Ala	Sept. 21, 1858.
21888	Brick-machine	John Kutts	Philadelphia, Pa	Oct. 26, 1858.
21876	Brick-machine	Thomas Forbes	Kansas City, Mo	Oct. 26, 1858.
20433	Brick, manufacture of	Thomas James	Canton, Md	June 1, 1858.
19309	Brick, mode of burning	A. J. Mullen and Robert Hall	Greensboro', Ala	Feb. 9, 1858.
22119	Brick-mould	James A. Hamer	Reading, Pa	Nov. 23, 1858.
	Cements, water-proof. (See Class IV, letter C.)			
21419	Clay, machine for moulding	Thomas Hoadley	Cleveland, Ohio	Sept. 7, 1858.
21506	Clay, machine for working	Henry Leguay	St Louis, Mo	Sept. 14, 1858.
22450	Cores for moulding plastic substances	James Pilgrim	New Britain, Conn	Dec. 28, 1858.
	Earthenware dishes. (See Class XVII, letter D)			

22091	Glass-bottles, mould for	S. S. Shinn	Lancaster, N. Y	Nov. 26, 1858.
22393	Glass furnaces and pots, manufacture of	Ezra Wells	Covington, Pa	Dec. 21, 1858.
19569	Glass, machinery for polishing	Alexander Lindsay	Malone, N. Y	Mar. 9, 1858.
19023	Kiln, lime	H. R. Fell	Texas, Md	Jan. 5, 1858.
19525	Kiln, lime	Abner B. Weeks	Rockland, Me	Mar. 2, 1858.
20015	Kiln, lime	Bernard Zwart	Keokuk, Iowa	April 20, 1858.
20549	Kiln, lime	G. W. Calkins and H. White	Cleveland, Ohio	June 15, 1858.
22239	Kiln, lime	Clark D. Page	Rochester, N. Y	Dec. 7, 1858.
	Lime, furnace for burning. (See Class V, letter F.)			
20458	Marble, machine for working	Caleb Warner	Washington, D. C	June 1, 1858.
21622	Marble, stone, &c., machine for sawing	James Norman and Aaron R. McLean	West Dresden, N. Y	Sept. 28, 1858.
19194	Pug-mill	James A. Hamer	Reading, Pa	Jan. 26, 1858.
	Pug-mills, grinding attachment to. (See Class XIII, letter M.)			
19407	Stone-dressing machine	Elijah Brady	New York, N. Y	Feb. 23, 1858.
22113	Stone for ballasting railroads and turnpikes, machine for breaking.	A. C. Ellithorpe and Ives Scoville	Chicago, Ill	Nov. 23, 1858.
21539	Stone holding machine	Eleazer B. Knight, assignor to himself and Nathan Kellogg.	Malden, N. Y	Sept. 14, 1858.
20542	Stone, machine for crushing	Eli W. Blake	New Haven, Conn	June 15, 1858.
21742	Stone, machine for dressing,	William Cooper	Mount Gilead, Ohio	Oct. 12, 1858.
20885	Stone, machine for drilling and splitting	John H. Lyon	Baltimore, Md	July 13, 1858.
20981	Stone sawing-machine	H. L. Arnold	Elk Horn, Wis	July 27, 1858.
	Stones, machine for gathering. (See Class I)			

Class XVI.—Leather, *including tanning and dressing, manufacture of boots, shoes, saddlery, harness, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20434	Back-band strap, self-adjusting and vibrating	R. Jancovins	Newark, N. J	June 1, 1858.
22102	Boot and shoe soles, instrument for trimming the edges of.	Isaac Rich, assignor to S. C. Arnold	Manchester, Conn	Nov. 16, 1858.
22095	Boot and shoe soles, machine for moulding	Daniel J. Tap ey	Danver's Centre, Mass	Nov. 16, 1858.

List of patents for inventions, 1858.—CLASS XVI.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20992	Boot-fronts, method of cutting	John Dick	New York, N. Y	July 27, 1858.
	Boot jack. (See Class XVII)			
19227	Boot-legs, method of securing straps upon	Leonard J. Worden, assignor to himself and Edwin L. Swartwout.	Utica, N. Y	Jan. 26, 1858.
22205	Boot-soles, crimping	Bradford and Lorenzo Stevens	Stoughton, Mass	Nov. 30, 1858.
19912	Boot-tops, circular, machine for turning the edges of.	Perez C. Clapp	Stoughton, Mass	April 13, 1858.
19508	Boot-tree	Reuben L. Lewis	Milford, Mass	Mar. 2, 1858.
20185	Boot-tree	W. W. Willmott, assignor to himself and H. F. Gardner.	Boston, Mass	May 4, 1858.
20914	Boot-tree	A. J. Wisner	Homer, N. Y	July 13, 1858.
21424	Boots and shoes, apparatus for applying soles to	Jacob Jenkins	Charlestown, Mass	Sept. 7, 1858.
21564	Boots and shoes, apparatus for applying soles to	Jacob Jenkins	Charlestown, Mass	Sept. 21, 1858.
20960	Boots and shoes, heel shavers for	Varanes Snell	North Bridgewater, Mass	July 20, 1858.
22328	Boots and shoes, heels for	Samuel Flint and Robert S. Rogers, assignors to William F. Johnson.	Lynn, Mass	Dec. 14, 1858.
20936	Boots and shoes, machine for cutting out the soles of.	John Crawshaw	Rochester, N. Y	July 20, 1858.
21593	Boots and shoes, machine for pegging	B. F. Sturtevant, assignor to himself and Elmer Townsend.	Boston, Mass	Sept. 21, 1858.
19611	Boots and shoes, machine for pricking and cutting heels of.	Edward S. Snell, assignor to himself and Francis B. Washburn.	North Bridgewater, Mass	Mar. 9, 1858.
19040	Boots and shoes, metal tips for toes of	George A. Mitchell	Turner, Maine	Jan. 5, 1858; reissued Dec. 7, 1858.
19305	Boots and shoes, method of attaching India rubber soles to.	Abram T. Merwin	New Haven, Conn	Feb. 9, 1858.
21334	Boots and shoes, method of stretching	George W. Griswold	Carbondale, Pa	Aug. 31, 1858.
20510	Boots and shoes, revolving heels of	J. H. Roome	New York, N. Y	June 8, 1858.
21760	Boots and shoes, soles for, tool for chamfering	William Johnson	Hampstead, N. H	Oct. 12, 1858.
22248	Boots, edge-keys for	George C. Todd	Lynn, Mass	Dec. 7, 1858.
19269	Boots, gaiter shoes and, water-proof	Thomas C. Wales	Dorchester, Mass	Feb. 2, 1858.

21889	Bridle to prevent horses from kicking or running away.	John M. Lanier	Eufaula, Ala	Oct. 26, 1858.
22352	Buckles	John Cumberland and James R. McClintock	Mobile, Ala New York, N. Y	Dec. 21, 1858.
19169	Collar and hames, horse, combined	G. W. N. Yost	Cincinnati, Ohio	Jan. 19, 1858.
19846	Collar-block, horse	E. D Gould	Darien, N. Y	April 6, 1858.
21301	Collar-block, horse	B. W. McClure and George Marsh, assignors to B. W. McClure and J. H. Windsor.	Pike Hollow, N. Y	Aug. 24, 1858.
21821	Collar, horse	C. K. Cuckler	Columbus, Ohio	Oct. 19, 1858.
20816	Collars, horse, machine for stuffing	Levi Plonk	Newton, N. C	July 6, 1858.
21674	Halters and bridles for horses	Samuel C. Hawkins	Patchogue, N. Y	Oct. 5, 1858.
22096	Hame fastener	John Tingley	Potter county, Pa	Nov. 16, 1858.
20278	Hame-tug fastener	E. D. Lockwood	Churchville, N. Y	May 18, 1858.
20246	Hame-tugs, fastening for	Joseph E. Ball	Newark, N. J	May 18, 1858.
21267	Harness	Freedom Monroe	Romeo, Mich	Aug. 24, 1858.
22383	Harness buckles	Oren B. Smith	Monticello, N. Y	Dec. 21, 1858.
21989	Harness, machine for creasing and blacking leather for.	Adolph Stempel	Oquaroka, Ill	Nov. 2, 1858.
20588	Harness-pads, construction of	R. M. Selleck	New York, N. Y	June 15, 1858.
19048	Harness-saddle	Henry Sanders	Utica, N. Y	Jan. 5, 1858.
20463	Harness-saddles, construction of wooden saddle-trees for.	F. P. Ambler, jr., assignor to F. P. Ambler & Sons.	Trumbull, Conn	June 1, 1858.
22290	Harness-snaps	B. B. Hotchkiss	Sharon, Conn	Dec. 14, 1858.
19078	Harness-tree	Thomas Dempsey	Newark, N. J	Jan. 12, 1858.
19371	Harness-tree	F. B Kuehnhold and D. B. Sturges	Newark, N. J	Feb. 16, 1858.
20222	Harness tug-buckle	W Straw and R. H. Armstrong	Hudson, Mich	May 11, 1858.
20997	Harness tug-buckle	John H. Feraw	Hinsdale, N. Y	July 27, 1858.
20861	Hides and leather, machine for dressing	J. R. Bumgarner and L. White	Davenport, Iowa	July 13, 1858.
20228	Last	S S. Turner	Westboro', Mass	May 11, 1858.
20393	Last-holder, rotary	David Philbrick, assignor to himself, and Elmer Townsend	Manchester, N. H Boston, Mass	May 25, 1858.
21721	Leather, artificial	William Kemble Hall, assignor to Amos Broadnax	West Hoboken, N. J St. Louis, Mo	Oct. 5, 1858.
19583	Leather, enamelling	John Rose	Newark, N. J	Mar. 9, 1858.
20093	Leather from vats, apparatus for raising	Charles E. Robinson & L. D. Sanborn	Concord, N. H	April 27, 1858.
21114	Leather into bales, machine for rolling	Nathan Burk	Fulton, N Y	Aug. 10, 1858.
22108	Leather, machine for splitting	H. E. Chapman	Albany, N. Y	Nov. 23, 1858.
20911	Leather shaving-knife	J. B. Wentworth	Lynn, Mass	July 13, 1858.
20098	Leather-sticker	H. Lee Seiltzbach	Marietta, Pa	April 27, 1858.

List of patents for inventions, 1858—CLASS XVI.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21937	Leather-straps, tool for chamfering	James Bridger	Richland, Iowa	Nov. 2, 1858.
20821	Leathering tacks, machine for	Charles L. Russell	Derby, Conn	July 6, 1858.
20819	Leathering tacks, machine for	Jesse Reed	Marshfield, Mass	July 6, 1858.
22340	Pegging-jack	Thomas D. Bailey	Lowell, Mass	Dec. 21, 1858.
21091	Pegging-machine	E. M. Stevens	Boston, Mass	Aug. 3, 1858.
19354	Reins, horse, device for holding	J. A. & F. Dunworth	Dobb's Ferry, N. Y	Feb. 16, 1858.
22130	Saddle-tree	Jesse Nece	Philadelphia, Pa	Nov. 23, 1858.
20439	Shoe, over, straw and wood	F. W. Michel, W. C. Willcox, & H. T. Miller.	Utica, N. Y	June 1, 1858.
19461	Shoe-peg machine	Abijah Woodward	Keene, N. H	Feb. 23, 1858.
19730	Shoe-peg machine	Amos H. Boyd, assignor to Samuel F. Chase.	Saco, Me	Mar. 23, 1858.
22061	Shoe-peg machine	Azro Brown	West Waterford, Vt	Nov. 16, 1858.
21104	Shoe-pegs, machine for manufacturing	I. G. Worth	Vassalboro' Me	Aug. 3, 1858.
19282	Shoe-pegs, method of preparing blanks for	B. F. Sturtevant, assignor to himself and Elmer Townsend.	Boston, Mass	Feb. 2, 1858.
21223	Shoe-tool, combination	D. J. Tapley	Danvers, Mass	Aug. 17, 1858.
20882	Shoemaker's edge plane	Freeman Killbrith	Pembroke, Mass	July 13, 1858.
19284	Shoes, bags, &c., implement for holding open	John Allender	New London, Conn	Feb. 9, 1858.
21500	Shoes, cemented sole, heating apparatus for the manufacture of.	Jacob Jenkins	Charlestown, Mass	Sept. 14, 1858.
21051	Shoes, machine for pegging	L. Lackey, assignor to himself, and Elmer Townsend	Sutton, Mass Boston, Mass	July 27, 1858.
19542	Skins, artificial, manufacture of	John H. Browne	Abbey Mills, England	Mar 9, 1858; England, Nov. 18, 1853.
21764	Stirrups	John Loudon & Hans Iverson	New York, N. Y	Oct. 12, 1858.
21755	Tanning	Barzillai Harrington & Nelson Russell	China, Me	Oct. 12, 1858.
21705	Tanning, apparatus for	A. C. Taggart & A. Gray	Allegheny, Pa	Oct. 5, 1858.
21168	Tanning hides	Theodore Klenam, assignor to Edward Marse	Pfullirger, Wurtemburg, Germany. London, England	Aug. 10, 1858.
21126	Tanning hides, apparatus for	Lewis C. England	Owego, N. Y	Aug 10, 1858.

19201	Tanning leather	Butler G. Noble	Whitewater, Wis	Jan. 26, 1858.
20565	Tanning leather	H. G. Johnson	Cleveland, Ohio	June 15, 1858.
	Tanning leather, composition for. (See Class IV, letter C.)			
20502	Tanning, method of	Jesse Morgan	Sumpterville, S. C	June 8, 1858.
19211	Tanning skins, apparatus for	Charles A Shaw & James Clark	Biddeford, Me	Jan. 26, 1858.
21394	Trace fastening	John C. De Witt, assignor to himself and T. Benedict.	West Bloomfield, N. J	Aug. 31, 1858.
22454	Trace-fastening	Uel J. Reynolds	Webster, N. Y	Dec. 28, 1858.
19934	Trunk-handles, mode of constructing	Samuel Lagowitz	Newark, N. J	April 13, 1858.
20832	Trunk-protector	R. M. Wade	Wadesville, Va	July 6, 1858.
20259	Trunks, card-plates for	Joseph Dudley	Fall River, Mass	May 18, 1858.

Class XVII.—Household furniture, *machines and implements for domestic purposes, including washing machines, bread and cracker machines, feather dressing, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21218	Andiron	J. B. Sargent	New Britain, Conn.	Aug. 17, 1858.
19402	Apple-corer	A. N. Alcott	Gowanda, N. Y	Feb. 23, 1858.
21695	Apple-paring knife	Adam Oot	Minetto, N. Y	Oct. 5, 1858.
20295	Apples, device for slicing	H. & J. S. B. Norton	Farmington, Me	May 18, 1858.
21141	Apples, machine for coring and quartering	Charles Lounsberry, jr	Nichols, N. Y	Aug. 10, 1858.
20814	Apples, machine for paring, slicing, and coring	J J. Parker	Marietta, Ohio	July 6, 1858.
20550	Basins, water-closet, attachment of pipes to	William S. Carr	New York, N. Y	June 15, 1858.
21042	Batter-machine	Ellyson Yerby	Washington, D. C	July 27, 1858.
20362	Bed-bottom	James M. Noble	Delhi, Iowa	May 25, 1858.
20486	Bed-bottom	Benjamin Griffin	Lawrence, Mass	June 8, 1858.
21123	Bed-bottom	W. H. Elliot	Plattsburgh, N. Y	Aug. 10, 1858.
21263	Bed-bottom	Rufus Leavitt	Cambridge, Mass	Aug. 24, 1858.
21519	Bed-bottom	Franklin Russell	Otselic, N. Y	Sept. 14, 1858.
19473	Bed-bottom, spring	C. Schroeder, assignor to himself and P. H. Tuska.	New York, N. Y	Feb. 23, 1858.
19410	Bed-bottom, spring	Jacob Coover	Chambersburg, Penn	Feb. 23, 1858.
19922	Bed-bottom, spring	Elbridge Foster	Hartford, Conn	April 13, 1858.

List of patents for inventions, 1858—CLASS XVII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20609	Bed-bottom, spring	George E. Safford, assignor to himself and F. G. and F. T. Ward.	New York, N. Y	June 15, 1858.
22098	Bed-bottom, spring	Noah Warlick	Chambers C. H, Ala	Nov. 16, 1858.
20097	Bedstead	N. W. Speers	Cincinnati, Ohio	April 27, 1858.
20435	Bedstead	W. B. Johns	U. S. A	June 1, 1858.
20518	Bedstead	William St. Charles	Fairmont, Va	June 8, 1858.
20750	Bedstead	C. A. Warner	Bristol, Conn	June 29, 1858.
20723	Bedstead	Norman Lanphear	Monmouth, Ill	June 29, 1858.
21527	Bedstead	William S. Todd	Mechanicsville, Iowa	Sept. 14, 1858.
21841	Bedstead	Rufus Maxwell	Tucker county, Va	Oct. 19, 1858.
21878	Bedstead-bottom	Samuel E. Hartwell	New York, N. Y	Oct. 26, 1858.
21926	Bedstead, bureau	Francis Hoffman, assignor to himself and John Menzell.	New York, N. Y	Oct. 26, 1858.
19451	Bedstead, cast iron, fastening of	A. C. Semple	New York, N. Y	Feb. 23, 1858.
19544	Bedstead-fastening	William Clark	Weymouth, Ohio	Mar. 9, 1858.
20478	Bedstead-fastening	George Burket	Croghan, Ohio	June 8, 1858.
20839	Bedstead-fastening	E. S. Wright	Buffalo, N. Y	July 6, 1858.
21511	Bedstead-fastening	Isaac M. May	Anderson, Ia	Sept. 14, 1858.
22456	Bedstead-fastening	Oliver Robinson	Rochester, N. Y	Dec. 28, 1858.
19254	Bedstead, invalid	George Miller	Fremont, Ohio	Feb. 2, 1858.
20580	Bedstead, invalid	Joseph Parker	Liverpool, England	June 15, 1858; England, Dec. 14, 1857.
19987	Bedstead, portable invalid	Zebulon C. Favor	Chicago, Ill	April 20, 1858.
20092	Bedstead-rail	Charles Robinson	Cambridgeport, Mass	April 27, 1858.
20206	Bedstead, sofa	John Irwin	Philadelphia, Penn	May 11, 1858.
19649	Bedstead, spring	Nathan M. Phillips	New York, N. Y	Mar. 16, 1858.
19449	Bedstead, wardrobe	Chandler Robbins	Chicago, Ill	Feb. 23, 1858.
21108	Beef and other steaks tender, machine for making	T. W. Moore, assignor to Elliot & Moore	Plattsburgh, N. Y	Aug. 3, 1858.
19082	Bell-hanging	N. G. Dubois	Brooklyn, N. Y	Jan. 12, 1858.
21335	Bell, house, portable	Albert W. Hale	New Britain, Conn	Aug. 31, 1858.
21422	Bells, hanging	George R. Meneely	West Troy, N. Y	Sept. 7, 1858.
19075	Blacking boots, shoes, &c., machine for	James M. Connel and John Connel	Newark, Ohio	Jan. 12, 1858.

20307	Boot-jack	O. S. Sikes	Suffield, Conn	May 18, 1858.
22404	Boot-jack	Frederick Ahl	West Meriden, Conn	Dec. 28, 1858.
19844	Boot-jack and burglar's alarm, combined	F. C. Goffin	Newark, N. J	April 6, 1858.
21619	Bread and cracker machine	W. R. Nevins and J. J. Yates	New York, N. Y	Sept. 28, 1858; England, Mar. 13, 1857.
19238	Bread-cutter	Matthew Chapman	Greenfield, Mass	Feb. 2, 1858.
19190	Brooms, art of making	Thomas Floyd, assignor to himself, Daniel K. Wunderlick, and Benjamin F. Nead.	Chambersburg, Penn	Jan. 26, 1858.
19039	Brooms, construction of	Oliver Mitchell	Eaton, Penn	Jan. 5, 1858.
19971	Brooms, machine for manufacturing splints for	J. W. Wheeler, assignor to himself and C. B. Williams.	Cleveland, Ohio	April 13, 1858.
20226	Brush	J. H. Tatum	New York, N. Y	May 11, 1858.
22381	Brush	Reuben Shaler	Madison, Conn	Dec. 21, 1858.
19459	Brush-block, whitewash	Charles Williams	Philadelphia, Penn	Feb. 23, 1858.
21092	Brush, case-shoe	Charles D. Thum	Philadelphia, Penn	Aug. 3, 1858.
20447	Brush, whitewash	David W. Shaw and William A. Megraw	Baltimore, Md	June 1, 1858.
21464	Brushes, manufacture of	Stephen Barnes, assignor to himself, Henry S. Parsons, and Samuel Rowland.	New Haven, Conn	Sept. 7, 1858.
19069	Bureaus and wash-stands, construction of	J. D. Burton	Boston, Mass	Jan. 12, 1858.
21220	Butter-bucket	James H. Stimpson	Baltimore, Md	Aug. 17, 1858.
20902	Butter-cooler	James H. Stimpson	Baltimore, Md	July 13, 1858.
19103	Butter-worker	Justin M. Smith	Lyme, Conn	Jan. 12, 1858.
21106	Butter-worker	N. W. Bancroft, assignor to himself and H. N. Proctor.	Burlington, Vt	Aug. 3, 1858.
21460	Butter-worker	Ziba Williams	Ithaca, N. Y	Sept. 7, 1858.
20054	Cabbage-cutter	Adam Fischer	Dayton, Ohio	April 27, 1858.
20209	Can for preserving food	A. S. Lyman	New York, N. Y	May 11, 1858.
20722	Can for preserving food, &c	A. S. Lyman	New York, N. Y	June 29, 1858.
22436	Can, fruit	W. W. Lyman	West Meriden, Conn	Dec. 28, 1858.
19063	Can, instrument for opening	Ezra J. Warner, assignor to himself, Wm. H. Warner, and Rufus E. Hitchcock.	Waterbury, Conn	Jan. 5, 1858.
20203	Can, preserve	Edwin W. Gilmore	North Easton, Mass	May 11, 1858.
20485	Can, preserve	H. G. Dayton	Maysville, Ky	June 8, 1858.
21078	Can, preserve	Emmons Manley	Marion, N. Y	Aug. 3, 1858.
22351	Can, preserve	P. H. Cotton	Demopolis, Ala	Dec. 21, 1858.
21348	Can, preserve, method of sealing	W. W. Lyman	West Meriden, Conn	Aug. 31, 1858.
22247	Can, preserve, sealing	Allen Taylor	Baltimore, Md	Dec. 7, 1858.
	Candlesticks, &c. (See Class V.)			

List of patents for inventions, 1858—CLASS XVII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19465	Carpet-beating-machine	Joseph Harris, jr, and Daniel Holmes, assignors to Daniel Holmes.	Roxbury, Mass. Chelsea, Mass.	Feb. 23, 1858.
21211	Carpet-cleaner	A. W. Noney	Bridgeport, Conn.	Aug. 17, 1858.
19164	Carpet-fastener	Charles A. Wakefield	Dalton, Mass	Jan. 19, 1858.
20341	Carpet-fastener	Warren Filkins	Lancaster, N. Y.	May 25, 1858.
21325	Carpet-fastener	M. Dewey and I. Phillips	Clarendon, N. Y.	Aug 31, 1858.
21365	Carpet-fastener	Joseph Reynolds	New Britain, Conn	Aug. 31, 1858.
22354	Carpet-fastener	Richard DeCharms	Philadelphia, Penn.	Dec. 21, 1858.
19882	Carpet-holder	Horace Thayer	Warsaw, N. Y.	April 6, 1858.
19230	Carpet-stretcher	Hermann Blau	Washington, D. C	Feb. 2, 1858.
19596	Carpet-stretcher	Joseph Warner	New Britain, Conn.	Mar. 9, 1858.
21303	Carpet-stretcher	Henry Ridley, assignor to S. P. Thatcher and Walter Stillman.	Hartford, Conn.	Aug. 24, 1858.
21654	Carpet-stretcher	W. C. Conant	New York, N. Y.	Oct. 5, 1858.
21233	Carpet-sweeper	H. H. Herrick. assignor to L. Culver	East Boston, Mass.	Aug. 17, 1858.
21451	Carpet-sweeper	Reuben Shaler	Madison, Conn.	Sept. 7, 1858.
21660	Carpet-sweeper	Jacob Edson	Boston, Mass.	Oct. 5, 1858.
21673	Carpet-sweeper	Daniel Harris	Boston, Mass	Oct. 5, 1858.
21701	Carpet-sweeper	Stephen P. Rowell	Reading, Mass	Oct. 5, 1858.
21815	Carpet-sweeper	Augustus C. Carey	Ipswich, Mass.	Oct. 19, 1858.
19824	Casters, sirup	Edmund Bigelow	Springfield, Mass.	April 6; reissued May 5, 1858.
20376	Chair and cradle, combined rocking	A. S. Smith	Lawrence, Mass.	May 25, 1858.
	Chair-backs, machine for manufacturing. (See Class XIV.)			
22297	Chair, folding	R. McG. Lytle, I. Alston, and Lorenzo W. True.	Williamson county, Tenn.	Dec. 14, 1858.
20198	Chair, reclining	Augustus Eliaers	Boston, Mass	May 11, 1858.
22145	Chair, reclining	Amos E. Kendall and Peter K. Keyes, assignors to themselves and C. W. Elton.	New York, N. Y.	Nov. 23, 1858.
21320	Chair, recumbent	David Buzzell	Charlestown, Mass	Aug. 31, 1858.
19352	Chair, rocking	Thomas W. Currier	Lawrence, Mass.	Feb. 16, 1858.

20863	Chair, rocking	I. P. Carrier	South Glastonbury, Conn	July 13, 1858.
19343	Chair, rotary blast-producing	L. R. Breisach	New York, N. Y	Feb. 16; add'l imp't June 1, 1858.
22419	Chairs and other seats, spring-bottom for			
21409	Chairs, cane-seat for	Patrick Gallagher	Pleasant Unity, Pa	Dec. 28, 1858.
19582	Chairs, sofas, &c., spring-seats of	John R. Cannon	New Albany, Ind	Sept. 7, 1858.
		Charler Robinson	Cambridgeport, Mass	Mar. 9, 1858.
20663	Cheese-vat	Henry A. Roe	West Andover, Ohio	June 22, 1858.
19476	Cherries, machine for stoning	Joseph Baker	Washington county, D. C	Mar. 2, 1858.
22464	Closet for sewing-machines	William P. Uhlinger	Philadelphia, Pa	Dec. 28, 1858.
19772	Clothes-dryer	James J. Hamilton	New Castle, Ind	Mar. 30, 1858.
20964	Clothes-dryer	S H. Tift	Morrisville, Vt	July 20, 1858.
21035	Clothes-dryer	S. H. Tift	Morrisville, Vt	July 27, 1858.
21639	Clothes-dryer	E. G. Gibson, assignor to H. G. Finkham	Owego, N. Y	Sept. 28, 1858.
21626	Clothes-dryer	Emma T. Porter.	Washington, D. C	Sept. 28, 1858.
20868	Clothes-drying apparatus	O. R. Dinsmoor	Auburn, N. H	July 13, 1858.
20579	Clothes-frame	Enos Page	Streetsboro', Ohio	June 15, 1858.
22398	Clothes-frame	William Hathaway, assignor to William G. Maynard.	Worcester, Mass	Dec. 21, 1858.
20669	Clothes, frame for drying	Chester Stone	Ravenna, Ohio	June 22, 1858.
21231	Clothes-horse	E. Culver, jr., assignor to himself and S. M. Blackwell.	Shelburne Falls, Mass	Aug. 17, 1858.
22435	Clothes-horse	Tristram S. Lewis	Kendall's Mills, Me	Dec. 28, 1858.
21818	Clothes-line, post for	Benjamin Chesnut	Philadelphia, Pa	Oct. 19, 1858.
20470	Clothes, machine for wringing	E. L. Hagar, assignor to himself and T. D. Aylsworth.	Frankfort, N. Y	June 1, 1858.
22451	Clothes, pestles for cleansing	Ezra Pollard, assignor to himself and B. W. Seeley.	Albany, N. Y	Dec. 28, 1858.
20364	Clothes-pins	Dexter, Pierce	Sunapee, N. H	May 25, 1858,
21029	Clothes-wringer	Isaac A. Sergeant	Springfield, Ohio	July 27, 1858.
21066	Coffee, apparatus for making	J. Dealey and T. H. Heberling	Warsaw, Ill	Aug. 3, 1858.
19827	Coffee, apparatus for roasting	Robert Brown	Ashtabula, Ohio	April 6, 1858.
	Coffee-roaster. (See Class V.)			
20577	Cracker-machine	Charles Neer	Troy, N. Y	June 15, 1858.
21606	Cracker-machine	J. & J. C. Holyland	Rochester, N. Y	Sept. 28, 1858.
22056	Cradle, infant's	Thomas C. Ball	Keene, N. H	Nov. 16, 1858.
20284	Cradle, spring-rocking	Jean B. Malbert and Augusti Cheviron	St. Louis, Mo	May 18, 1858.
22349	Cruet, pepper	Henry T. Clawson	Newbern, N. C	Dec. 21, 1858.
19560	Curtain-fixtures	Joseph F. Hall	Bangor, Me	Mar. 9, 1858.
20013	Curtain-fixtures	Thomas K. Work	Hartford, Ct	April 20, 1858.

List of patents for inventions, 1858—CLASS XVII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22153	Curtain-fixtures	Thomas C. Baldwin	Newton, Mass.	Nov. 30, 1858.
20906	Dishes, earthen-ware	A. & T Vali	Berlin, Wis	July 13, 1858.
21683	Dough for bread, apparatus for raising	Josee Johnson	New York, N. Y.	Oct. 5, 1858.
19968	Dough, machine for rolling and cutting	J. S. Schuyler, assignor to J. McCollum	New York, N. Y.	April 13, 1858.
19610	Dough, raising	James Perry and E. Fitzgerald, assignors to James Perry, Daniel Fitzgerald, and Horatio Bogert.	New York, N. Y.	Mar. 9, 1858.
19738	Egg-beater	P. Mihan, assignor to P. Mihan and G. Davis.	Boston, Mass.	Mar. 23, 1858.
22161	Eggs, apparatus for assorting	Henry Burt	Newark, N. J	Nov. 30, 1858.
20032	Eggs, beating, churning, and the like processes, apparatus for.	William Borrman	Cincinnati, Ohio	April 27, 1858.
20359	Foot-cleaner	Allan McKeachnie	New York, N. Y.	May 25, 1858.
19733	Freezer, cream	Enoch S Farson, assignor to himself and Henry H. Brown.	Philadelphia, Pa.	Mar. 23, 1858.
19147	Freezer, ice-cream	H. B. Masser	Sunbury, Pa.	Jan. 19, 1858.
19635	Fruit, apparatus for drying	William Heaton	Green county, Pa	Mar 16, 1858.
21415	Fruit-box	Nicholas Hallock	Flushing, N. Y	Sept. 7, 1858.
22433	Fruit, preserving	John K. Jenkins	Kingston, Pa	Dec. 28, 1858.
20031	Furniture-casters	Henry D. Blake	New Hartford Centre, Ct	April 27, 1858.
22243	Furniture-casters, device for supporting	Henry E. Richards	Newark, N. J	Dec. 7, 1858.
19369	Furniture, casters for	Jacob Kinzer	Pittsburg, Pa	Feb. 16, 1858.
19127	Furniture, construction of	A. D. Brown	Glasgow, Scotland	Jan. 19, 1858.
19405	Furniture, method of manufacturing	John H. Belter	New York, N. Y	Feb. 23, 1858.
	Gridiron, folding. (See Class V.)			
19507	Hominy-mortar	John Keezer	Chillicothe, Ohio	Mar. 2, 1858.
20538	Housebell.	Jason Barton	East Hampton, Ct	June 15, 1858.
21891	Iron, flat	David Lithgow	Philadelphia, Pa	Oct. 26, 1858.
21450	Ironing clothes, machine for.	John Schaeffer	Lancaster, Pa	Sept. 7, 1858.
19964	Jar, preserving	J. Borden, assignor to David Potter and F. L. Bodine.	Bridgeton, N. J	April 13, 1858.
22066	Jar, sealing preserve	Reuben M. Dalbey	Mount Washington, Ohio	Nov. 16, 1858.

21442	Kneading-machine	W. S. Reinert	Philadelphia, Pa	Sept. 7, 1858.
20724	Knife and spoon cleaner	James McNish	Berlin, Wis	June 29, 1858.
20391	Knife-cleaner	W. Miller, assignor to himself and D. S. French.	Waltham, Mass	May 25, 1858.
20929	Knife-cleaner	Jacob J. Banta	Jersey City, N. J	July 20, 1858.
20340	Knife-polisher	H. T. Field	New Braintree, Mass	May 25, 1858.
21058	Knife-sharpener	John J. & A. T. Armstrong	Brooklyn, N. Y	Aug. 3, 1858.
22055	Knife-sharpener	Alexander Annan	New York, N. Y	Nov. 16, 1858.
21746	Knives, grinding and polishing	James Dodge	Waterford, N. Y	Oct. 12, 1858.
19419	Ladle, culinary	Joseph C. Haines	Dublin, Ind	Feb. 23, 1858.
21044	Mangle	D. Cumming, jr., assignor to D. Cumming, sr.	Mobile, Ala	July 27, 1858.
20002	Mangle, domestic	Samuel Nolan	New York, N. Y	April 20, 1858.
19347	Mat, door, India rubber	Edwin M. Chaffee	Providence, R. I	Feb. 16, 1858.
20112	Mattress, folding	William Wells	Harrisburg, Pa	April 27, 1858.
22037	Mattresses and cushions, elastic material for	Thomas Briggs Smith	Marietta, Ohio	Nov. 9, 1858.
19681	Meat-chopper	P. H. Chesley	Lynn, Mass	Mar. 23, 1858.
20258	Meat-chopper	L. A. Dole	Salem, Ohio	May 18, 1858.
19547	Meat-cutter	Abner B. Davenport	Petersham, Mass	Mar. 9, 1858.
20019	Meat-cutter	Pierre Demuere, assignor to Charles Chefy	Brooklyn, N. Y	April 20, 1858.
21421	Meat-cutter	Jacob K. Hoyer	Reading, Pa	Sept. 7, 1858.
21514	Meat-cutter	M. Newman	Oak Hill, N. Y	Sept. 14, 1858.
19728	Meat-cutting machine	Frederick Wolfersberger	Salem Station, Ohio	Mar. 23, 1858.
21016	Milk, closet for	E. H. Nash	Westport, Ct	July 27, 1858.
21842	Mop and brush, combined	Henry McClay	Niles, Mich	Oct. 19, 1858.
21019	Musquito-bars, means of adjusting	F. C. Payne	Hebron, Ct	July 27, 1858.
19965	Oven	J. S. Brown, assignor to himself and Joseph Kent.	Washington, D. C	April 13, 1858.
	Oven. (See Class V.)			
19050	Oyster-opener	John Seipel and William Rupp	Washington, D. C	Jan. 5, 1858.
19648	Pail, milking	Solomon Oppenheimer	Peru, Ind	Mar. 16, 1858.
20811	Pan, dust	T. E. McNeill	Philadelphia, Pa	July 6, 1858.
19182	Pepper-box, air-tight	Edmund Brown	Lynn, Mass	Jan. 26, 1858.
19855	Pitcher, ice	Ernest Kauffman	Philadelphia, Pa	April 6, 1858.
20592	Pitcher, ice	George W. Smith	Hartford, Ct	June 15, 1858.
21717	Pitcher, ice	James Stimpson, deceased, Jas. H. Stimpson, executor of.	Baltimore, Md	Oct. 5, 1858.
20499	Pitcher, refrigerating	W. W. Lyman	West Meriden, Ct	June 8, 1858.
21808	Pot, coffee	Nelson Barlow	New York, N. Y	Oct. 19, 1858.

List of patents for inventions, 1858—CLASS XVII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19780	Pot, coffee and tea	James M. Ingraham	New York, N. Y	Mar. 30, 1858.
21589	Pot, tea	William Austin, assignor to himself and William Oblyke.	Philadelphia, Pa	Sept. 21, 1858.
22278	Pot, tea and coffee	Stephen Culver	Newark, N. J	Dec. 14, 1858.
20517	Provision-cutter	William Smith	Cincinnati, Ohio	June 8, 1858.
20543	Quilting-frame	Alanson Brown	Rochester, N. Y	June 15, 1858.
20764	Quilting-frame	John King, assignor to himself, W. Higbie, H. Link, and G. R. Comstock.	Little Falls, N. Y	June 29, 1858.
19107	Rack, clothes	Chester Stone	Ravenna, Ohio	Jan. 12, 1858.
20974	Rack, clothes	George Young, jr	Saratoga Springs, N. Y	July 20, 1858.
21131	Rack, clothes	A. A. Harris	Ravenna, Ohio	Aug. 10, 1858.
19373	Refrigerator	W. D. Ludlow	New York, N. Y	Feb. 16, 1858.
19837	Refrigerator	W. Ferris, P. Garrett, and J. Megratten	Wilmington, Del	April 6, 1858.
20621	Refrigerator	J. D. Burton	Charlestown, Mass	June 22, 1858.
20907	Refrigerator	Nathaniel Waterman	Boston, Mass	July 13, 1858.
20895	Refrigerator	Henry Rehahn	New York, N. Y	July 13, 1858.
21897	Refrigerator	James Naughten	Cincinnati, Ohio	Oct. 26, 1858.
21977	Refrigerator	Benjamin M. Nyce	Kingston, Ind	Nov. 2, 1858.
22104	Refrigerator	Abel H. Bartlett	Spuyten Duyvil, N. Y	Nov. 23, 1858.
22127	Refrigerator	Adolphus Lippmann	New York, N. Y	Nov. 23, 1858.
19432	Refrigerator, table	Charles A McEvoy	Richmond, Va	Feb. 23, 1858.
21337	Sad-iron heater cover	William Heath	Lincoln, Me	Aug. 31, 1858.
20815	Sausage-filler	J. G. Perry	South Kingston, R. I	July 6, 1858.
21965	Sausage-machine	R. V. Jones	Johnstown, Pa	Nov. 2, 1858.
	Scissors, manufacture of. (See Class II.)			
19106	Scissors-sharpener	Andrew Stevely	New Haven, Ct	Jan. 12, 1858.
19467	Scissors-sharpener	George Hinman, assignor to himself and John H. Pardee.	New Haven, Ct	Feb. 23, 1858.
19784	Scissors-sharpener	John C. Loveland	Springfield, Vt	Mar. 30, 1858.
21868	Scrubbing-machine	Samuel M. Barnett	New Orleans, La	Oct. 26, 1858.
20018	Smoothing and polishing-iron	Francis A. Cannon, assignor to John Phillips.	Brooklyn, N. Y	April 20, 1858.

20445	Smoothing-iron	Abraham Rudisill	York, Pa	June 1, 1858.
20451	Spittoon	W. Staehlen	Williamsburg, N. Y	June 1, 1858.
21799	Stair-pad, elastic	Thomas J. Mayall, assignor to himself and Benjamin F. Cook.	Roxbury, Mass	Oct. 12, 1858.
22301	Stair-sweeper	F. H. Moore	Boston, Mass	Dec. 14, 1858.
21633	Stand, embroidery and sewing	William H. Trowbridge	Saginaw, Mich	Sept. 28, 1858.
21275	Stand, ice	H. A. Roberts	Hartford, Ct	Aug. 24, 1858.
20088	Table, convertible extension	Michael Quigley	Watertown, Wis	April 27, 1858.
20530	Table, extension	George Pratt, assignor to J. A. Ellis and J. E. Hazleton.	Boston, Mass	June 8, 1858.
20489	Table, extension	William Heerdt	New York, N. Y	June 8, 1858.
22224	Table, extension	Adolphus Bader	New York, N. Y	Dec. 7, 1858.
22294	Table, folding	Charles Lammrich	New York, N. Y	Dec. 14, 1858.
19390	Table, ironing	William Vandenburg and J. Harvey	New York, N. Y	Feb. 16, 1858.
19883	Table, ironing	William Vandenburg	New York, N. Y	April 6, 1858.
29231	Table, ironing	William Vandenburg	New York, N. Y	May 11, 1858.
19773	Table, self-waiting	G. W. Hagey	Smithland, Ky.	Mar. 30, 1858.
21832	Table, writing	Jacob S. Haskell	Salem, Mass.	Oct. 19, 1858.
21885	Tables, dining and other	Alexand Kinkead	Washington county, D. C	Oct. 26, 1858.
22086	Tongs for coal, &c	James M. Meschutt	New York, N. Y	Nov. 16, 1858.
22070	Vegetable-cutter and coffee-mill combined	Bartholomew Essig	Pittsburg, Pa	Nov. 16, 1858.
20473	Wash-board	S. M. Barrett, R. S. Lee, and J. M. Waters.	Cincinnati, Ohio	June 8, 1858.
20644	Wash-board	Joseph Keech	Waterloo, N. Y	June 22, 1858.
22087	Wash-board	John Miner and Silas Merrick	New Brighton, Pa	Nov. 16, 1858.
22053	Wash-board	John Adams	Pittsburg, Pa	Nov. 16, 1858.
20428	Wash-stand and night-stool combined	F. W. Hamilton	Conshohocken, Pa	June 1, 1858.
19694	Wash-stand, water-tight	Christian Gies	New York, N. Y	Mar. 23, 1858.
19037	Washing-machine	Samuel P. Mecay	Killbourne, Ohio	Jan. 5, 1858.
19181	Washing-machine	Nicholas Bennet, assignor to David Parker.	New Lebanon, N. Y	Jan. 26, 1858.
19257	Washing-machine	W. W. Neal	Yellow Springs, Ohio	Feb. 2, 1858.
19299	Washing-machine	Edward Julier	McConnellsville, Ohio	Feb. 9, 1858.
19315	Washing-machine	W. H. Tambling	Berlin, Wis	Feb. 9, 1858.
19474	Washing-machine	Benjamin R. Smith, assignor to John Hellings.	East Whiteland, Pa	Feb. 23, 1858.
19609	Washing-machine	H. Lawrence, assignor to himself and J. M. Connel.	Newark, Ohio	Mar. 9, 1858.
19653	Washing-machine	James Robb	Lewistown, Pa	Mar. 16, 1858.
19634	Washing-machine	Lewis Hannum	Homer, N. Y	Mar. 16, 1858.
19788	Washing-machine	James McVicker	Green county, Pa	Mar. 30, 1858.

List of patents for inventions, 1858—CLASS XVII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19911	Washing-machine	Henry Cassell	Fredericktown, Ohio	April 13, 1858.
20101	Washing-machine	Edmund Tharp	Cincinnati, Ohio	April 27, 1858.
20099	Washing-machine	Charles M. Swany	Richmond, Ind	April 27, 1858.
20123	Washing-machine	Henry Yost	St. Louis, Mo	April 27, 1858.
20154	Washing-machine	Ashman Hall	Dansville, N. Y	May 4, 1858.
20244	Washing-machine	D. E. Rohr, assignor to himself and Thomas W. Davis.	Charlestown, Va	May 11, 1858.
20230	Washing-machine	Miner Van Auken	Chazy, N. Y	May 11, 1858.
20369	Washing-machine	Abraham Quimby	Terre Haute, Ind	May 25, 1858.
20365	Washing-machine	F. B. Pratt and F. Tylee	Cleveland, Ohio	May 25, 1858.
20408	Washing-machine	J. L. Conklin, sr., and J. Foust	St. Louis, Mo	June 1, 1858.
20482	Washing-machine	E. B. Clement	Barnet, Vt	June 8, 1858.
20574	Washing-machine	Benjamin D. Morrell	Windham, Me	June 15, 1858.
20732	Washing-machine	P. C. Rude	Morgantown, Va	June 29, 1858.
20791	Washing-machine	R. H. Harrison	Laurel, Md	July 6, 1858.
20872	Washing-machine	B. T. Ghormley	New Frankfort, Ind	July 13, 1858.
20932	Washing-machine	William Brown	Duncannon, Pa	July 20, 1858.
21216	Washing-machine	D. C. Rood	Altona, Ill	Aug. 17, 1858.
21175	Washing-machine	David Allan	St. Louis, Mo	Aug. 17, 1858.
21261	Washing-machine	W A. Jordan	Thibodeaux, La	Aug. 24, 1858.
21385	Washing-machine	Thomas J. Tindall	New York, N. Y	Aug. 31, 1858.
21477	Washing-machine	W. T. Armstrong	Sandwich, Ill	Sept. 14, 1858.
21476	Washing-machine	John Allen	Galena, Mo	Sept. 14, 1858.
21565	Washing-machine	Henry R. June	Millport, N. Y	Sept. 21, 1858.
21665	Washing-machine	John Fordyce	Morgantown, Va	Oct. 5, 1858.
21653	Washing-machine	Samuel W. Cole	Millington, Md	Oct. 5, 1858.
21875	Washing-machine	T. G. Eiswald	Providence, R. I.	Oct. 26, 1858.
21867	Washing-machine	W. T. Armstrong	Sandwich, Ill	Oct. 26, 1858.
21909	Washing-machine	Hamilton E. Smith	Philadelphia, Pa	Oct. 26, 1858.
21903	Washing-machine	Joseph F. Pond	Cleveland, Ohio	Oct. 26, 1858.
22236	Washing-machine	John G. Haley, Isaac Wilson, and Jackson Lyon.	Cameron, Ill	Dec. 7, 1858.

22227	Washing-machine	Jesse Bowen	Yellow Bud, Ohio	Dec. 7, 1858.
22461	Washing-machine	George W. Swigert	Monmouth, Ill	Dec. 28, 1858.
21819	Water-coolers, arrangement of means for making tight joints around the faucets of.	John S. Clark	Philadelphia, Pa	Oct. 19, 1858.
19226	Window-shade fixtures	Charles Schleier, assignor to John H. Bonn	Brooklyn, N. Y	Jan. 26. 1858.
19336	Window-shades, rollers for	J. B. Bailey	New York, N. Y	Feb. 16, 1858 Reissued April 13, 1858.

CLASS XVIII.—ARTS POLITE, FINE, AND ORNAMENTAL, *including music, painting, sculpture, engraving, books, paper, printing, binding, jewelry, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22199	Bag-machines, &c , pasting apparatus for	S. E. Pettee	Mansfield, Mass	Nov. 30, 1858.
19046	Bank-notes, &c., shears for cutting	S. P. Ruggles	Boston, Mass	Jan. 5, 1858.
21984	Book and slate, combined	Forrest Shepherd	New Haven, Conn	Nov. 2, 1858.
21759	Book-marker, index or	Josee Johnson	New York, N. Y	Oct. 12, 1858.
21708	Books, machine for numbering the pages of	Edward and Calvin E. Town	Jersey City, N. J	Oct. 5, 1858.
19654	Books, machine for trimming	A. C. Semple	New York, N. Y	Mar. 16, 1858.
21748	Boxes, portable	Adolphe Dreyspring	Montgomery, Ala	Oct. 12, 1858.
21381	Bracelets	Francis M. Sweet	Syracuse, N. Y	Aug. 31, 1858.
21208	Cerotypography, feed motion for	John McElheran	Brooklyn, N. Y	Aug. 17, 1858.
20183	Chains, sheet-metal	J. Lancelott, assignor to Sackett, Davis, & Co.	Cranston, R. I	May. 4, 1858.
21456	Copying-apparatus, portable	William Van Anden	Poughkeepsie, N. Y	Sept. 7, 1858.
20436	Daguerreotype and other cases, hinge for	E. G. Kinsley and S. A. W. Parker, jr	Stoughton, Mass	June 1, 1858.
20718	Daguerreotype-plates, machine for cleaning	Charles Ketcham	Penn Yan, N. Y	June 29, 1858.
19770	Doll-heads, constructing	Ludwig Greiner	Philadelphia, Pa	Mar. 30, 1858.
21336	Drawing-board	Isachar P. Hansell	Springfield, Ill	Aug. 31, 1858.
19602	Drums, military, construction of	Charles M. Zimmermann	Philadelphia, Pa	Mar. 9, 1858.
21509	Electrotype-moulds, machine for coating	Henry Lovejoy and Robert Wheeler	Brooklyn, N. Y	Sept. 14, 1858.
	Electrotype-plate, production of. (See Class IV. letter P.)			

List of patents for inventions, 1858.—CLASS XVIII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20711	Engravers, &c., ring-clamp for	T. R. Hopkins	Petersburg, Va	June 29, 1858.
19607	Engraving-machine, pantographic, device for	John Hope, assignor to himself and Thomas Hope.	Providence, R. I	Mar. 9, 1858.
20528	Engraving-machines, apparatus for supporting and adjusting gravers for.	John Hope, assignor to himself and Thomas Hope.	Providence, R. I	June 8, 1858.
20087	Envelopes for letters, &c	Charles Phelps	Salem, Mass	April 27, 1858.
22405	Envelopes, letter	James G. Arnold	Worcester, Mass	Dec. 28, 1858.
22149	Envelopes, machine for making	Milton G. Puffer, assignor to Cyrus White and Lewis A. Corbin.	Rockville, Conn	Nov. 23, 1858.
21430	Gilding, apparatus for preparing elliptical frames for.	Robert I. Marcher	New York, N. Y	Sept. 7, 1858.
21173	Gilding, machine for preparing frames for	J. W. Campbell	New York, N. Y	Aug. 10, 1858; antedated Mar. 25, 1858.
20078	Gilding on glass, mode of protecting	P. V. Mathews	Philadelphia, Pa	April 27, 1858.
21896	Glass, ornamenting	Jasper S. Miles	Ann Arbor, Mich	Oct. 26, 1858.
19707	Graphotype	John McElheran	Brooklyn, N. Y	Mar. 23, 1858.
20512	Ink-roller	Alexander Schimmelfennig and Julius Ende.	Washington, D. C	June 8, 1858.
20710	Ink-roller	A. A. Hanscom	Saco, Me	June 29, 1858.
19613	Inkstand	Lucien E. Hicks, assignor to David C. Field.	Boston, Mass	Mar. 9, 1858.
20028	Inkstand	John M. Batchelder	Cambridge, Mass	April 27, 1858.
21395	Inkstand	Valentine Fogerty, assignor to Francis Houghton.	Cambridgeport, Mass	Aug. 31, 1858.
21554	Inkstand	Samuel Darling	Bangor, Me	Sept. 21, 1858.
22123	Inkstand	Orlando H. Jadwin	Carbondale, Pa	Nov. 23, 1858.
22429	Inkstand	Thomas S. Hudson	East Cambridge, Mass	Dec. 28, 1858.
19497	Jewelry, loop-chains for	C. W. Dickinson	Newark, N. J	Mar. 2, 1858.
19783	Lead pencil and eraser, combination of	Hymen L. Lipman	Philadelphia, Pa	Mar. 30, 1858.
19624	Lenses, fluid, mounting	Almira M. Cole	Windham, Me	Mar. 16, 1858.
22089	Melodeons, &c	Isaac Rehn	Philadelphia, Pa	Nov. 16, 1858.
21262	Music stool	Edwin Leach	Norwich, Conn	Aug. 24, 1858.

19296	Musical instrument	U. C. Hill and C. F. Hill	Jersey City, N. J New York, N. Y	Feb. 9, 1858.
20397	Musical instrument	John D. Akin	Spartansburg, Pa	June 1, 1858.
19345	Musical instruments, machine for cutting key-boards, &c., for.	Derwin E. Butler	Chesterfield, Ohio	Feb. 16, 1858.
22139	Musical instruments, wind	Cornelius J. Van Oecklen	New York, N. Y	Nov. 23, 1858.
19187	Musical wind instrument	C H. Eisenbrandt	Baltimore, Md	Jan. 26, 1858.
19814	Musicians, hard-exerciser for	J. Monestier, assignor to R. F. Spangenberg.	St. Dennis, near Paris, France.	Mar. 30, 1858; Fr'nce Jan. 12, 1857.
19312	Organs, &c., pedals for	Thomas Robjohn	New York, N. Y	Feb. 9, 1858.
20480	Ornaments to the ear, method of attaching	W. B. Carpenter	Brooklyn, N. Y	June 8, 1858.
19316	Painting and varnishing machine	Horace Thayer and Levi L. Martin	Warsaw, N. Y	Feb. 9, 1858.
20111	Paper, apparatus for damping	C. A. Waterbury	New York, N. Y	April 27, 1858.
19506	Paper-bags, machine for making	Jacob Keller	Fairview, Pa	Mar. 2, 1858.
20838	Paper-bags, machine for making	Francis Wolle	Bethlehem, Pa	July 6, 1858.
21657	Paper-bags, &c., knives to cut	Henry R. David	New York, N. Y	Oct. 5, 1858.
21775	Paper-clamp	Arnold Palmer	Lee, Mass	Oct. 12, 1858.
19748	Paper-file	W. Z W. Chapman	New York, N. Y	Mar. 30, 1858.
22363	Paper-file	Edward K. Godfrey	New York, N. Y	Dec. 21, 1858.
20965	Paper-hangings, apparatus for hanging up and carrying off.	T. Van Deventer	New Brunswick, N. J	July 20, 1858.
21710	Paper-hangings, machine for trimming the edges of.	John Waugh	Elmira, N. Y	Oct. 5, 1858.
20858	Paper, machine for cutting	M. B. Bigelow	Boston, Mass	July 13, 1858.
21172	Paper, machine for folding	John North, assignor (through mesne assignments) to Steuben T. Bacon.	Middletown, Conn	Aug. 10, 1858.
21411	Paper, machine for ruling	J. C. Forman	Cleveland, Ohio	Sept. 7, 1858.
20077	Paper, machine for wetting	John A Lynch	Boston, Mass	April 27, 1858.
22009	Paper, wetting, apparatus for	Moses S. Beach	Brooklyn, N. Y	Nov. 9, 1858.
21584	Paper, &c., coloring, apparatus for	Charles Williams	Philadelphia. Pa	Sept. 21, 1858.
19831	Pen and pencil cases	John Cockburn	New York, N. Y	April 6, 1858.
20065	Pen-cleaner and holder	Thomas S Hudson	Boston, Mass	April 27, 1858.
20741	Pen-fountain	Susan E. Taylor	East Cambridge, Mass	June 29, 1858.
21881	Pen-fountain	Josee Johnson	New York, N. Y	Oct. 26, 1858.
22017	Pen-fountain	John C Cutts	Philadelphia, Pa	Nov. 9, 1858.
21758	Pen-holder	Josee Johnson	New York, N. Y	Oct. 12, 1858.
20056	Pencil-sharpener	Walter K. Foster	Bangor, Me	April 27, 1858.
20262	Pencil-sharpener	Walter K. Foster	Bangor, Me	May 18, 1858.
21649	Pencil-sharpener, slate	William Burnet	New York, N. Y	Oct. 5, 1858.

List of patents for inventions, 1858.—CLASS XVIII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19191	Pencil-sharpeners, making blades for	Walter K. Foster	Bangor, Me.	Jan. 26, 1858.
20219	Pencils, slate, instrument for sharpening	Gerard Sickels	Brooklyn, N. Y	May 11, 1858.
21679	Photographic bath	Bernhard Hufnagle	New York, N Y	Oct. 5, 1858.
21470	Photographic cameras, diaphragm for	C. C. Harrison and Joseph Schnitzer, assignors to C. C. Harrison.	New York, N. Y	Sept. 7, 1858.
19252	Photographic cameras, plate-holders for	William and W. H. Lewis	New York, N. Y	Feb. 2, 1858.
20401	Photographic cameras, plate-holders for	A. D. Bollens	Newburgh, N. Y	June 1, 1858.
22158	Photographic plate-shield	Henry Bryant and R. D. O. Smith	Washington, D. C	Nov. 30, 1858.
21829	Photographic shield	Ebenezer Gordon	New York, N. Y	Oct. 19, 1858.
20213	Photographs, compound	Thomas Miltenberger	Bellefontaine, Ohio	May 11, 1858.
19626	Photolithography	James A. Cutting and L. H. Bradford	Boston, Mass	Mar. 16, 1858.
19081	Piano-forte	Spencer B. Driggs	New York, N. Y	Jan. 12, 1858.
19857	Piano-forte action	Henry A. Seaman	New York, N. Y	April 6, 1858.
20500	Piano-forte action	J. V. Marshall	Albany, N. Y	June 8, 1858.
20595	Piano-forte action	Henry Steinway	New York, N. Y	June 15, 1858.
21990	Pianos, pedal attachment for	William B. Stetson	Taylor, N. Y	Nov. 2, 1858.
21192	Picture-frames, oval, machinery for preparing	William Gardner	New York, N. Y	Aug. 17, 1858.
20670	Portfolio file	P. W. Toy	New York, N. Y	June 22, 1858.
21902	Press, copying	Edwin and Jacob B. Platt	Clark county, Ga	Oct. 26, 1858.
21997	Press, hand, self-inking	Daniel Zuern and L. L. Bevan	Shamokin, Pa	Nov. 2, 1858.
21976	Presses for embossing and figuring velvet, &c	John Nagele	Altoona, Pa.	Nov. 2, 1858.
20276	Presses for zincographic printing	G. H. Korff	Hoboken, N. J	May 18, 1858.
21321	Printers' composing sticks	Alexander Calhoun	Hartford, Conn.	Aug. 31, 1858.
20714	Printers, type case for	W. A. Hunter	Bryan, Ohio	June 29, 1858.
21429	Printing addresses on newspapers, &c., machine for.	James Lord	Pawtucket, Mass	Sept. 7, 1858.
21418	Printing and numbering press	George J. Hill	Buffalo, N. Y	Sept. 7, 1858.
21723	Printing calico, rollers for	John Hope, assignor to himself and Thos. Hope.	Providence, R. I	Oct. 5, 1858.
19797	Printing, casting types for	George Schaub	Hamburg, Germany	Mar. 30, 1858.
21148	Printing-ink rollers	Elisha Pratt	Salem, Mass.	Aug. 10, 1858.

22136	Printing names or directions on packages, &c., machine for.	James Spencer	Toronto, Canada	Nov. 23, 1858.
19672	Printing-press	Henry A. Bills and Stephen W. Wood	West Winstead, Conn. Cornwall, N. Y	Mar. 23, 1858; England Jan. 28, 1858.
19758	Printing-press	G. W. Davis	Seneca Falls, N. Y.	Mar. 30, 1858.
2 090	Printing-press	T. S. Reynolds	Athens, Ga	Dec. 27, 1858.
20204	Printing-press	G. P. Gordon and F. O. Degener	New York, N. Y	May 11, 1858.
20874	Printing-press	George P. Gordon	New York, N. Y	July 13, 1858.
21080	Printing-press	F. B. Nichols	Morrisania, N. Y	Aug. 3, 1858.
21154	Printing-press	E. E. Sneider	New York, N. Y	Aug. 10, 1858.
21228	Printing-press	Daniel Wolfe	Dixon, Ohio	Aug. 17, 1858.
21528	Printing-press	Ervin B. Tripp	New York, N. Y	Sept. 14, 1858.
21484	Printing-press	James A. Campbell	New Orleans, La	Sept. 14, 1858.
22027	Printing-press	Charles Montague	Hartford, Conn	Nov. 9, 1858.
22010	Printing-press	Moses S. Beach	Brooklyn, N. Y	Nov. 9, 1858.
22181	Printing-press	David E. James	Utica, N. Y	Nov. 30, 1858.
22414	Printing-press	S. R. Cotton	Green Bay, Wis	Dec. 28, 1858.
21591	Printing-press, automatic paper-feeder for	William Bullock, assignor to George W. Taylor.	Newark, N. J	Sept. 21, 1858.
20039	Printing-press, card	W. W. Clarkson	Baltimore, Md.	April 27, 1858.
22011	Printing-press, feeding out paper from	Moses S. Beach	Brooklyn, N. Y	Nov. 9, 1858.
20556	Printing-press, hand	Charles A Haskins	New York, N. Y	June 15, 1858.
21980	Printing-press, hand	James N. Phelps	New York, N. Y	Nov. 2, 1858.
21859	Printing-press, paper-feeder for	Lemuel T Wells	Cincinnati, Ohio	Oct 19, 1858.
20179	Printing-press, tympan for	L. T. Wells	Cincinnati, Ohio	May 4, 1858.
19881	Printing-stamp, hand	Benjamin B. Stanton	New York, N. Y.	April 6, 1858.
22358	Ring, finger, extension	Samuel Friend and George Seiler	New York, N. Y.	Dec. 21, 1858.
20273	Signs	James Harrison	Albany, N. Y	May 18, 1858.
19970	Signs, door-plates, &c.	John T. Wellman, assignor to Charles O. Thompson.	Lowell, Mass	April 13, 1858.
21798	Spelling-block	Samuel L. Hill, assignor to himself, A., Palmer, and A. S. Doane.	New York, N. Y.	Oct. 12, 1858.
20922	Stamp, hand	W. Morse and J. Hughes, assignors to G. H. and A. T. Devereux and O. W. and E E. Barrett.	Boston, Mass	July 13, 1858.
20217	Stamp, hand, self-making	S E. Pettee and E. G. Cobb	Mansfield, Mass Foxboro', Mass	May 11, 1858.
22272	Stencil	R. A. Adams	St. Louis, Mo	Dec. 14, 1858.
19943	Stencil-pallet	J. H. Merriam	Boston, Mass	April 13, 1858.

List of patents for inventions, 1858.—CLASS XVIII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20081	Stereotype-plates, method of preparing	John H. McElheran	Brooklyn, N. Y	April 27, 1858.
21341	Studs, &c., lock-joint fastener for	Ira A. Ives	New York, N. Y	Aug. 31, 1858.
19645	Types, picture	John McElheran	Brooklyn, N. Y	Mar. 16, 1858.
22423	Typographer, mechanical	Henry Harger	Delhi, Iowa	Dec. 28, 1858.

CLASS XIX.—FIRE-ARMS AND IMPLEMENTS OF WAR, *and parts thereof, including the manufacture of shot and gunpowder.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21219	Bomb-lance	Rufus Sibley	Greenville, Conn	Aug. 18, 1858.
22054	Bomb-lance	A F. and J. H. Andrews	Avon, Conn	Nov. 16, 1858.
21463	Bullet-machine	Calvin Young	Auburn, N. Y	Sept. 7, 1858.
21505	Bullet-machine	John Aris Knight	St. Louis, Mo	Sept. 14, 1858.
22286	Bullets, hollow, machine for making	Richard Gornall	Baltimore, Md	Dec. 14, 1858.
20608	Cannon, breech-loading	J. H. Murrill, assignor to himself, J. Flynn, and P. Emrich.	Baltimore, Md.	June 15, 1858.
22299	Cannon, breech-loading	Edward Marshall	New York, N. Y.	Dec. 14, 1858.
22325	Cannon, breech-loading	Edward S Wright and Theordore P. Gould	Buffalo, N. Y	Dec. 14, 1858.
22427	Cannon, breech-loading	John W. Hollensbury	Alexandria, Va	Dec. 28, 1858.
20727	Cartridge	George W Morse	Baton Rouge, La.	June 29, 1858.
20214	Cartridge-case	George W. Morse	Baton Rouge, La.	May 11, 1858.
21253	Cartridge for fire-arms	E. Gomez and W. Mills	New York, N. Y.	Aug. 24, 1858.
19327	Fire-arm	F. D. Newbury, assignor to Richard V. De Witt, jr.	Albany, N. Y	Feb. 9, 1858.
20041	Fire-arm, breech-loading	Calvin Cox	Coxville, N. C.	April 27, 1858.
20073	Fire-arm, breech-loading	Thomas Lee	New York, N. Y	April 27, 1858.
20503	Fire-arm, breech-loading	George W. Morse	Baton Rouge, La	June 8, 1858.

20825	Fire-arm, breech-loading	George H. Soule	Jersey City, N. J.	July 6. 1858.
20776	Fire-arm, breech-loading	E. Brooks, and G. Walker	Philadelphia, Pa	July 6, 1858.
20954	Fire-arm, breech-loading	James H. Merrill	Baltimore, Md	July 20, 1858.
21523	Fire-arm, breech-loading	E. T. Starr	New York, N. Y.	Sept. 14, 1858.
21802	Fire-arm, breech-loading	John P. Schenkl, assignor to himself and Edward A. Dana.	Worcester, Mass	Oct. 12, 1858.
22094	Fire-arm, breech-loading	John C. Symms	Watertown Arsenal, Mass	Nov. 16, 1858.
22348	Fire-arm, breech-loading revolving	E. Claude	New York, N. Y.	Dec. 21, 1858.
20129	Fire-arm, continuous priming for	Daniel G. Rollin, assignor to George G. Martin.	New York, N. Y.	April 27, 1858.
19213	Fire-arm, nipple-guard of	David W. Smith	Boston, Mass	Jan. 26, 1858.
19387	Fire-arm, repeating	Charles C. Terrel	Shalesburg, Wis	Feb. 16, 1858.
19553	Fire-arm, repeating	A. C. Faivre	Meadville, Pa	Mar. 9, 1858.
21149	Fire-arm, repeating	F. B. Prindle	New Haven, Conn	Aug. 10, 1858.
19739	Fire-arm, revolving	F. D. Newbury, assignor to Richard V. De Witt, jr.	Albany, N. Y	Mar. 23, 1858.
19961	Fire-arm, revolving	Rollin White	Hartford, Conn	April 13, 1858.
20160	Fire-arm, revolving	B. F. Joslyn	Worcester, Mass	May 4, 1858.
20144	Fire-arm, revolving	Samuel Colt	Hartford, Conn	May 4, 1858.
20496	Fire-arm, revolving	Moses Kinsey	Newark, N. J	June 8, 1858.
20607	Fire-arm, revolving	F. H. Harrington, assignor to Horace Smith and Daniel B. Nesson.	Springfield, Mass	June 15, 1858.
20765	Fire-arm, revolving	F. D. Newbury, assig'r to R. V. De Witt, jr.	Albany, N. Y	June 29, 1858; additional improvement Sept. 28, 1858.
21054	Fire-arm, revolving	E. A. Raymond and C. Robetaille, assignors to themselves, J. B. Richards, and T. K. Austin	Brooklyn, N. Y	July 27, 1858.
21215	Fire-arm, revolving	Joseph Rider	Newark, Ohio	Aug. 17, 1858.
21188	Fire-arm, revolving	W. H. Elliott	Plattsburgh, N. Y	Aug. 17, 1858.
21400	Fire-arm, revolving	Ethan Allen	Worcester, Mass	Sept. 7, 1858.
21478	Fire-arm, revolving	Fordyce Beals	New Haven, Conn	Sept. 14, 1858.
21623	Fire-arm, revolving	William Palmer	New York, N. Y	Sept. 28, 1858.
21730	Fire-arm, revolving	Thomas K Austin	New York, N. Y	Oct. 12, 1858.
22005	Fire-arm, revolving	Ethan Allen	Worcester, Mass	Nov. 9, 1858.
22412	Fire-arm, revolving	John W. Cochran	New York, N. Y	Dec. 28, 1858.
19868	Fire-arm, revolving, removeable rammer of	Henry S North	Middletown, Conn	April 6, 1858.
19328	Gun, cane	John F. Thomas, assignor to himself and Samuel Remington.	Ilion, N. Y	Feb. 9, 1858.

List of patents for inventions, 1858—CLASS XIX.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20597	Gun-carriage	G. J. Van Brunt	Dedham, Mass	June 15, 1858.
22377	Gun-carriages, quoins for	David D. Porter	U. S. Navy	Dec. 21, 1858.
21109	Gun, centrifugal	C. B. Thayer, assignor to himself and Chas. Robinson.	Boston, Mass	Aug. 3, 1858.
20757	Gun-lock, double-acting	Elias Brey, assignor to himself and J. L. Swartley.	Pennsburgh, Pa	June 29, 1858.
19121	Gun, lock of double-barrel	Henry Barnes	Wilson, N. C	Jan. 19, 1858.
19063	Gun, needle	William Burghart	Lawrence, Mass	Jan. 12, 1858.
19086	Gun, spring	Albert Gernunder	Springfield, Mass	Jan. 12, 1858.
19674	Gun, walking-stick	Robert R. Beckwith	New York, N. Y	Mar. 23, 1858.
21773	Ordnance, compound shell for	Lorenzo B. Olmstead	Binghamton, N. Y	Oct. 12, 1858.
20229	Ordnance, repeating	Grey Utley	Louisburg, N. C	May 11, 1858.
19342	Powder flask	J. H. Breckenridge	Meriden, Conn	Feb. 16, 1858.
20315	Rifle, breech-loading	C. W. Alexander	Moorefield, Va	May 25, 1858.
21924	Rifle, breech-loading, patching balls for	Lucius H. Gibbs, assignor to Gibbs Arms Company.	New York, N. Y	Oct. 26, 1858.
19505	Shell, eccentric explosive	William W. Hubbell	Philadelphia, Pa	Mar. 2, 1858.
20250	Shot, making	Alfred Booth	New York, N. Y	May 18, 1858.

CLASS XX.—SURGICAL AND MEDICAL INSTRUMENTS, *including trusses, dental instruments, bathing-apparatus, &c.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
22293	Bandages	N. Jensen	Washington, D. C	Dec. 14, 1858.
22298	Bath, shower	Joseph Mansfield	Jefferson, Wis	Dec. 14, 1858.
21138	Bathing-apparatus	Frederick Kraemer	Brooklyn, N. Y	Aug. 10, 1858.
22080	Breast-pipes	Thomas Lewis	Malden, Mass	Nov. 16, 1858.
21790	Corn-eradicator	Corydon Wheat	Geneva, N. Y	Oct. 12, 1858.
19858	Dental-plate, atmospheric pressure	Morris Levett	New York, N. Y	April 6, 1858.
21562	Dentists' chair	Alexander M. Holmes	Morrisville, N. Y	Sept. 21, 1858.
19052	Dentists' operating chair	George W. Tripp	Auburn, N. Y	Jan. 5, 1858.
22063	Forceps, tooth, mode of connecting electro-magnetic apparatus with.	James J. Clark	Philadelphia, Pa	Nov. 16, 1858.
22018	Lacteal instrument	C. H. Davidson	Charlestown, Mass	Nov. 9, 1858.
21289	Legs, artificial, attachments to	O. D. Wilcox	Elmira, N. Y	Aug. 24, 1858.
22362	Medicated fabrics	Henry Glynn	Baltimore, Md	Dec. 21, 1858.
20896	Medicated vapor apparatus	A. F. Rose	Brooklyn, N. Y	July 13, 1858.
21291	Obstetrical chair	C. C. Wingo	Newport, Va	Aug. 24, 1858.
21189	Pessary	William Elmer	New York, N. Y	Aug. 17, 1858.
20754	Plate, use of dentists' pattern	William M. Wright	Pittsburg, Pa	June 29, 1858.
19025	Splints, attachment of adjustable foot-boards to	John Gruol	New York, N. Y	Jan. 5, 1858.
21872	Splints, extension	William Bunce	Sullivan, Ohio	Oct. 26, 1858.
19916	Teeth, bases for artificial	George Dieffenbach	New York, N. Y	April 13, 1858.
20905	Teeth, extracting, apparatus as aids in	Charles C. Thomas	Natchez, Miss	July 13, 1858.
21853	Teeth, method of applying electricity during extraction of.	Jacob S. Simmerman	Glassborough, N. J	Oct. 19, 1858.
20390	Teeth, method of extracting	Jerome B. Francis, assignor through mesne assignments to James J. Clark.	Philadelphia, Pa	May 25, 1858.
19914	Truss-pad	William F. Dailey	Baltimore, Md	April 13, 1858.
20444	Truss-pad	H. H. Reynolds	Buffalo, N. Y	June 1, 1858.
21548	Truss-pad	Cornelius Campbell	St. Louis, Mo	Sept. 21, 1858.
21767	Truss-pad	Lazarus B. McLain, sr	New Lisbon, Ohio	Oct. 12, 1858.

CLASS XXI.—WEARING APPAREL, ARTICLES FOR THE TOILET, &c., *including instruments for manufacturing.*

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19932	Bonnet-frame	Whitten E. Kidd	New York, N. Y	April 13, 1858.
	Bonnets and other articles of varying thickness, machinery for pressing. (See Class III, letter B.)			
22242	Bustle	Charles A. Pestley	Jersey City, N. J	Dec. 7, 1858.
20865	Bustles and skirts	H. N. Daggett	Attleboro', Mass	July 13, 1858.
22133	Bustles for ladies' dresses	George V. and Edwin A. Pierce	New York, N. Y	Nov. 23, 1858.
20707	Button-fastening	Lester Goodwin	New York, N. Y	June 29, 1858.
20632	Button-holes, implement for cutting	Charles Currier	Providence, R. I	June 22, 1858.
19120	Buttons	Jean Felix Bapterosses	Paris, France	Jan. 19, 1858; France Jan. 17, 1857.
20194	Buttons, sleeve, fasteners for	Henry Cogswell	Providence, R. I	May 11, 1858.
22443	Corsets	Ann S. McLean	Williamsburg, N. Y	Dec. 28, 1858.
19418	Diapers, infants, substitute for	J. H. Hall	Kittanning, Pa	Feb. 23, 1858.
22366	Fans, portable, manufacture of	John C. Hall	Fayette, Miss	Dec. 21, 1858.
19271	Garments, machine for drafting	James M. Weston	Chesterfield, N. Y	Feb. 2, 1858.
19228	Hair in curl, ladies', clamp for holding	Francis Arnold	Middle Haddam, Conn	Feb. 2, 1858.
20069	Hose-supporter	Asa Johnson	Cairo, N. Y	April 27, 1858.
20834	Muff, ear, cheek, and chin	William P. Ware	Cincinnati, Ohio	July 6, 1858.
20708	Pantaloons	B. J. Greeley	Springfield, Mass	June 29, 1858.
19280	Pin, diaper or shawl	John G. Klinger, assignor to Ignatius Sturn.	Jersey City, N. J	Feb. 2, 1858.
21966	Pin, shield	Josee Johnson	New York, N. Y	Nov. 2, 1858.
22159	Scissors	Joel Bryant	Brooklyn, N. Y	Nov. 30, 1858.
	Scissors, manufacture of. (See Class II.)			
21369	Shears	J. H. Roome	New York, N. Y	Aug. 31, 1858.
22039	Shirt-bosom folders	John Stevens	New York, N. Y	Nov. 9, 1858.
22442	Shirt-stud	Charles McIntyre	Newark, N. J	Dec. 28, 1858.
22375	Shirts, drafting	John Peckham	New Haven, Conn	Dec. 21, 1858.
21839	Skirt, hoop	George Mallory	Watertown, Conn	Oct. 19, 1858.
20561	Skirt-hoop	David Holmes	Westfield, Mass	June 15, 1858; reissued Aug. 17, 1858.

20681	Skirt-hoop	R. J. Mann, assignor to L. A. Osborn and I. J. Vincent.	Brooklyn, N. Y	June 22, 1858.
20720	Skirt-hoop	Martin Landenberger	Philadelphia, Pa	June 29, 1858.
20801	Skirt-hoop	Austin Kelley	New York, N. Y	July 6, 1858.
22385	Skirt-hoop, buckle for	John Stevens and James Hanley	New York, N. Y	Dec. 21, 1858.
20598	Skirt-hoop, clasp for	Thomas Wallace, jr	Ansonia, Conn	June 15, 1858.
21373	Skirt-hoop, clasp for	A. Smart	New York, N. Y	Aug. 31, 1858.
21747	Skirt-hoop, fastening for	Alexander Douglas and Samuel S. Sherwood.	New York, N. Y	Oct. 12, 1858.
22355	Skirt-hoop, slide and fastening for	Alexander Douglas and Samuel S. Sherwood.	New York, N. Y	Dec. 21, 1858.
21709	Skirt-hoop, slide for	William M. Warren	New York, N. Y	Oct. 5, 1858.
21581	Skirt, ladies', eyelet fastening for	W. S. Thomson	New York, N. Y	Sept. 21, 1858.
21479	Skirt, ladies' hoop	Samuel Beberdy	Philadelphia, Pa	Sept. 14, 1858.
22197	Skirt, ladies' hoop	Samuel Peberdy	Philadelphia, Pa	Nov. 30, 1858.
22426	Skirt, ladies' hooped	John Holmes	Boston, Mass	Dec. 28, 1858.
21806	Skirt, skeleton	E. G. Atwood	Derby, Conn	Oct. 19, 1858.
22051	Skirt, skeleton-hoop	R. J. Mann, assignor to L. A. Osborn and I. J. Vincent.	Brooklyn, N. Y	Nov. 9, 1858.
19576	Skirt-supporter	N. C. Nelson	Concord, N. H	Mar. 9, 1858.
19946	Skirts, cords for	David Perry	Godwinsville, N. J	April 13, 1858; antedated Oct. 13, 1857.
22308	Skirts, hoop, forceps for fastening clasps on	George D. and Samuel A. and Charles L. Russell.	Birmingham, Conn	Dec. 14, 1858.
21324	Sun-shade	Anthony G. Davis	Watertown, Conn	Aug. 31, 1858.
20124	Suspender, shoulder-brace	B. J. Greeley	Springfield, Mass	June 1, 1858.
20326	Tailor's measure	W. R. Stace	Rochester, N. Y	July 6, 1858.
20519	Tailor's pressing-machine	L. B. Storrs	Canton, N. Y	June 8, 1858.
20879	Tailor's shears	Rochus Heinisch	Newark, N. J	July 13, 1858.
22124	Tournures	Benjamin Johnson	Philadelphia, Pa	Nov. 23, 1858.
19998	Umbrella	Henry Kurth	Brooklyn, N. Y	April 20, 1858.
21313	Umbrella	Charles Boernicke	Baltimore, Md	Aug. 31, 1858.
21855	Umbrella	Henry Steele	Jersey City, N. J	Oct. 19, 1858.
	Umbrella and head-rest combined. (See Class X, letter H)			
22033	Umbrellas and parasols, frames for	Frederick Reichhold	New York, N. Y	Nov. 9, 1858.
22142	Umbrellas, parasols and	Edward Young	Philadelphia, Pa	Nov. 23, 1858.
22274	Wristband-fastener	Daniel S. Baker	Providence, R. I	Dec. 14, 1858.

Class XXII.—Miscellaneous.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
19527	Alarm, burglars'	William D. Wright	Baltimore, Md	Mar. 2, 1858.
19973	Alarm, burglars'	H. Hersch, B. Bauman, and H. C. Locher	Lancaster, Pa	April 13, 1858.
21555	Alarm, burglars'	A. W. Decrow	Bangor, Maine	Sept. 21, 1858.
21849	Alarm, burglars'	Henry R. Robbins	Baltimore, Md	Oct. 19, 1858.
22024	Alarm, burglars'	N. Jensen	Washington, D. C	Nov. 9, 1858.
20852	Alarm-clock, burglars'	G. D. Sargent, assignor to himself and T. R. Abbott.	Boston, Mass	July 6, 1858.
20819	Alarm-clock, burglars'	John Matthewman	New Haven, Conn	July 6, 1858.
	Alarm, house, electro-magnetic. (See Class VIII, letter E.)			
19295	Alarm-lock	Horace L. Hervey	Windsor, Conn	Feb. 9, 1858.
19926	Alarm-lock	Horace L. Hervey	Windsor, Conn	April 13, 1858.
21457	Alarm-lock	Jonathan W. Wells	Pittsburg, Pa	Sept. 7, 1858.
20333	Alarm-lock, burglars'	Addison Corey	Casstown, Ohio	May 25, 1858.
21339	Alarm, prison, apparatus for	William O. Hills	Nottingham, N. H	Aug. 31, 1858.
19495	Alarm, sash-balance	Thomas Denham and Joseph W. Briggs	Cleveland, Ohio	Mar. 2, 1858.
19196	Alarm, tidal	Abel Hildreth	Thomaston, Maine	Jan. 26, 1858.
21719	Aquaria, construction of	J. Chilcott and James Scrimgeour, assignors to themselves and George F. Taylor.	Brooklyn, N. Y	Oct. 5, 1858.
22619	Aquarium	Elijah D. Davis	Brooklyn, N. Y	Nov. 9, 1858.
22176	Ashes and garbage safe	William Gee	New York, N. Y	Nov. 30, 1858.
20085	Awning, metal	William O. Parisen	New York, N. Y	April 27, 1858.
20256	Ballot-box	Allan Cummings	New York, N. Y	May 18, 1858.
21684	Ballot-box	Samuel C. Jollie	New York, N. Y	Oct. 5, 1858.
19384	Bank-check canceller	William M. Simpson	Newark, N. J	Feb. 16, 1858.
19229	Basket-splints, tool for manufacturing	Artemas Baker	Templeton, Mass	Feb. 2, 1858.
22371	Bench, folding	Tristram L. Lewis	Kendall's Mills, Maine	Dec. 21, 1858.
21444	Billiard-balls	C. B. & J. & W. C. Rogers	Deep River, Conn	Sept. 7, 1858.
21159	Billiard-cushion	W. K. Winant	Brooklyn, N. Y	Aug. 10, 1858.
22001	Billiard-table	D. D. Winant, assignor to W. R. Winant	New York, N. Y	Nov. 2, 1858.
22064	Billiard-table	H. W. Collender	New York, N. Y	Nov. 16, 1858.
20156	Billiard-table cushion	George W. Holman	New York, N. Y	May 4, 1858.

22263	Billiard-table cushion	John E. Came, assignor to himself and James E. Came.	Boston, Mass	Dec. 7, 1858.
19101	Billiard table, cushion for	Michael Phelan, assignor to H. W. Collender	New York, N. Y.	Jan. 12, 1858.
19074	Billiard table, cushion for	H. W. Collender	New York, N. Y.	Jan. 12, 1858.
22020	Billiard table, cushion for	Levi Decker	Bergen, N. J	Nov. 9, 1858.
19755	Billiard table, folding	Charles Croley	Cincinnati, Ohio	Mar. 30, 1858.
20548	Billiard table, pocket supporter for	J. E. Came and S. Havens	Boston, Mass	June 15, 1858.
19546	Billiard table tops or beds	Charles Croley	Cincinnati, Ohio	Mar. 9, 1858.
	Bottle for containing mercury. (See Class IV, letter M.)			
22186	Bottle, screw-neck	John L. Mason	New York, N. Y.	Nov. 30, 1858.
19323	Bottle-stopper	J. B. Williams	New York, N. Y.	Feb. 9, 1858.
22370	Bottle-stopper	Thomas Lewis	Malden, Mass	Dec. 21, 1858.
20778	Bottle, stopper for	M. C. Cronk	Auburn, N. Y	July 6, 1858.
20843	Bottle, stopper for	J. Ewing, assignor to F. V. Rushton	New York, N. Y.	July 6, 1858.
	Bottles, apparatus for making glass stoppers for. (See Class XV.)			
	Bottles, glass, mould for. (See Class XV, letter G.)			
20520	Bottles, jars, &c., metallic caps for	W. J. Stevenson	New York, N. Y.	June 8, 1858.
20113	Bottles, machine for washing	W. B. White and John A. Whitford	Saratoga Springs, N. Y	April 27, 1858.
20240	Candy-machine	George K. Farrington and Samuel Brown, jr., assignors to themselves and David B. Tiffany.	Xenia, Ohio	May 11, 1858.
21384	Casket, travelling	T. R. Timby	Medina, N. Y	Aug. 31, 1858.
21677	Checks, baggage	Edmund Hoole	Mount Vernon, N. Y	Oct. 5, 1858.
19717	Cigar-lighting cinders	Henrich Reimann	Hartford, Conn	Mar. 23, 1858.
19580	Cigar-lighting cinders, apparatus for containing and lighting.	Henrich Reimann	Hartford, Conn	Mar. 9, 1858.
21558	Cigar-wrapper	Henry Durell	Morrisania, N. Y	Sept. 21, 1858.
19746	Cigars	Thomas Blanchard	Boston, Mass	Mar. 30, 1858.
19341	Cigars, machine for making	Louis Beauché	Paris, France	Feb. 16, 1858; France, May 22, 1856.
21704	Cigars, wrappers for	James S. Suter and George M. Palmer	Baltimore, Md	Oct. 5, 1858.
19503	Coffin	Daniel and Solomon E. Hooker	West Poultney, Vt	Mar. 2, 1858.
20095	Coffins, constructing	Isaac C. Shuler	Amsterdam, N. Y	April 27, 1858.
20770	Corks, machine for cutting	R. P. Abernethy, assignor to Union Cork Manufacturing Company.	Cincinnati, Ohio	July 6, 1858.
20771	Corks, machine for cutting	R. P. Abernethy and M. M. Wombaugh	Cincinnati, Ohio	July 6, 1858.

List of patents for inventions, 1858—Class XXII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
21944	Corks, machine for cutting	Edward Conroy	Boston, Mass	Nov. 2, 1858.
19109	Creepers	Leonhardt Witting	Philadelphia, Penn	Jan. 12, 1858.
21955	Cup, drinking	Louis Grosholz	Philadelphia, Penn	Nov. 2, 1858.
19791	Desk-seat for schools	Charles Perley	New York, N. Y	Mar. 30, 1858.
20487	Desk, writing	J. H. Grimsley and P. J. Aukney	New Lexington, Ohio	June 8, 1858.
21249	Desk. writing	John W. Fiester	New Lexington, Ohio	Aug. 24, 1858.
20859	Door-plate	Jeremy W. Bliss	Hartford, Conn	July 13, 1858.
20100	Drawer for closets, bureaus, &c	H. R. Taylor	Roxbury, Mass	April 27, 1858.
20703	Eels, apparatus for skinning	Adam Emeigh	Jerusalem, N. Y	June 29, 1858.
21282	Fire-escape	Owen Sweeney	Brooklyn, N. Y	Aug. 24, 1858.
20752	Fire-ladder	Joseph Welte	Buffalo, N. Y	June 29, 1858.
20961	Fireman's trumpet	William Staehlen	Williamsburgh, N. Y	July 20, 1858.
20343	Fish, apparatus for catching	Jacob Garl	Suffield, Ohio	May 25, 1858.
20725	Fish at sea, net for catching	Benjamin Merritt, jr	Charlestown, Mass	June 29, 1858.
20309	Fishing-rods, tips for	J. C. Underwood and T. J. Bargis	Richmond, Ia	May 18, 1858.
	Fog-signal machine. (See Class VIII, letter S.)			
20539	Glaziers' pins, machine for cutting	John G. Baker	New Brunswick, N. J	June 15, 1858.
19205	Heel spur to prevent slipping on ice	Horatio Pollard	Boston, Mass	Jan. 26, 1858.
19761	Horse and cattle tie, self-loosening	J. J. Eshlemann	Lancaster, Penn	Mar. 30, 1858.
22210	Ice, apparatus for hoisting and storing	Hiram Van Steenburgh and Joel Egnor	Catskill, N. Y	Nov. 30, 1858.
19195	Ice in rivers, machine for planing away	R. W. Heywood	Baltimore, Md	Jan. 26, 1858.
20322	Ice, machine for hoisting	W. G. Brower	Staatsburgh, N. Y	May 25, 1858.
22403	Ice-pick	John L. Rowe, assignor to Frederick Stevens	New York, N. Y	Dec. 21, 1858.
19376	Ice-spur	Charles Monnin	Buffalo, N. Y	Feb. 16, 1858.
22390	Labels for trees, &c	William W. Wade and Francis T. Cordis	Long Meadow, Mass	Dec. 21, 1858.
	Ladder, fire-escape. (See Class V, letter F.)			
19578	Letter boxes to lamp-posts, mode of attaching metallic.	Albert Potts	Philadelphia, Penn	Mar. 9, 1858.
21716	Marks on cloth, &c., trade, machine for stamping	Algernon S. Wright	Lawrence, Mass	Oct. 5, 1858.
21794	Match cards, rack for holding comb	E. G. Byam and B. E. Parkhurst, assignors to E. and E. G. Byam and S. A. Carlton,	Boston, Mass Brunswick, Me	Oct. 12, 1858.

19608	Match-machine	Samuel Miller and William Gates, jr Assignors to William Gates, jr.	Hammond, N. Y Frankfort, N. Y	Mar. 9, 1858.
21770	Match-safe, friction, portable and water-proof	Platt Merrill	Port Sanilac, Mich	Oct. 12, 1858.
21082	Money-table	William Painter	Wilmington, Del	Aug. 3, 1858.
20125	Net, fishing	Thomas Hall, assignor to Thomas Hall & Co.	Gloucester, Mass	April 27, 1858.
20235	Net, fly	Robert Wilson	Milton, Pa	May 11, 1858.
21274	Packages for dry goods	Alexander Robertson	Middlesex Co., England	Aug. 24, 1858; England, June 26, 1855.
20715	Picket, screw	Oliver Hyde	Benicia, Cal	June 29, 1858.
19832	Pocket-books, &c., method of securing	Oliver Cox	Alexandria, Va	April 6, 1858.
	Ratan-machines, device for retaining in proper position the splitting-knife in. (See Class XIV.)			
20055	Ruler	Thomas Fisler	Camden, N. J	April 27, 1858.
21585	Skate-irons	C. A. and R. Williams and G. A. Morse	Bloomfield, Me	Sept. 21, 1858.
21973	Smoking-tube	Charles Mathews	New York, N. Y	Nov. 2, 1858.
21473	Stamping milk-cans, apparatus for	William M. Storm, assignor to A. Cummings.	New York, N. Y	Sept. 7, 1858.
20306	Stamps to letters, post office, machine for affixing.	George K. Snow	Watertown, Mass	May 18, 1858.
20303	Street-sweeping machine	A. J. Roberts	Boston, Mass	May 18, 1858.
21743	Streets, machine for sweeping	Amzi Crane	Newark, N. J	Oct. 12, 1858.
21933	Swords, method of hanging	Jonathan Ball	Utica, N. Y	Nov. 2, 1858.
	Tacks, leathering, machine for. (See Class XVI, letter L.)			
21703	Ticket-holder	J. W. Shaler	New York, N. Y	Oct. 5, 1858.
19856	Tobacco, machine for crimping	Rhodolphus Kinsley	Springfield, Mass	April 6, 1858.
20199	Tobacco, pipes and cigar-holds or mouth-pieces for smoking.	James W. Evans	New York, N. Y	May 11, 1858.
20075	Toy	Conrad Liebrich	Philadelphia, Pa	April 27, 1858.
22078	Trap, animal	C. Jillson	Worcester, Mass	Nov. 16, 1858.
21647	Trap, animal, constructing	Moses H. Biddle	Mount Carmel, Ill	Oct. 5, 1858.
21676	Trap, animal, constructing	Edmund Hill	Cincinnati, Ohio	Oct. 5, 1858.
19382	Trap, fly	Thomas M. Scott	La Grange, Ga	Feb. 16, 1858.
20091	Trap, fly	William Riley	Madison Co., Miss	April 27, 1858.
21646	Trap, fly	Bryan Atwater	Berlin, Ct	Oct. 5, 1858.
19825	Trap for animals	John L. Brabyn	New York, N. Y	April 6, 1858.

List of patents for inventions, 1858—Class XXII.

No.	Inventions or discoveries.	Patentees.	Residence.	Date.
20873	Trap for animals	Samuel Gibson	Mastic Township, Pa	July 13, 1858.
21302	Trap for animals	Frederick Reutha, assignor to Moritz Loth	Hartford, Ct	Aug. 24, 1858.
21454	Trap for animals	Rufus M. Turner	Woodland, Mich	Sept. 7, 1858.
21978	Trap for animals	Rufus L. Payne	Halifax, Va	Nov. 2, 1858.
19355	Trap for catching rats and other animals	Earl D. Fink	Columbus, Ohio	Feb. 16, 1858.
20042	Trap, rat	W. H. Cox	Virden, Ill	April 27, 1858.
21726	Trap, roach	A. N. Shell, assignor to W. S. Wood and T. N. Shell.	Richmond, Va	Oct. 5, 1858.
20931	Twine-box	W. R. Bennett and C. Storer	Boston, Mass	July 20, 1858.
19875	Wallet-fastener	J. T. Sargent	Carlinville, Ill	April 6, 1858.
20299	Whalebone, manufacture of artificial	C. Poppenhusen	New York, N. Y	May 18, 1858.
21740	Willow, machine for peeling	George J. Colby	Waterbury, Vt	Oct. 12, 1858.

LIST OF REISSUES GRANTED DURING THE YEAR 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Date of reissue.
603	Acid, sulphuric, manufacture of	A. Monnier	Camden, N. J	Aug. 11, 1857; reissued Oct. 6, 1857.	Sept. 21, 1858.
551	Arithmometer for adding	O. L. Castle	Upper Alton, Ill.	Nov. 24, 1857	May 11, 1858.
	Bagasse furnaces. (See Furnaces.)				
533	Barrels and other casks, machine for making.	Isaac Crossett	Bennington, Vt	July 1, 1844	Mar. 2, 1858.
531	Billiard-cues	Conrad Leicht	New York, N. Y	May 27, 1856	Feb. 23, 1858.
544	Boilers, steam	W. M. and J. B. Ellis	Washington, D. C	Sept. 29, 1857	April 13, 1858.
594	Boilers, steam	F. P. Dimpfel	Philadelphia, Pa	April 1, 1856	Aug. 31, 1858.
530	Boilers, steam, safety indicators for	Lucius J. Knowles	Warren, Mass	Feb. 10, 1857	Feb. 23, 1858.
612	Bolting flour	Edward Bradfield	Rochester, N. Y	Sept. 15, 1846	Oct. 12, 1858.
523	Books, account, machine for numbering the pages of.	John McAdams	Boston, Mass	Aug. 12, 1851	Jan. 26, 1858.
632	Boots and shoes, metal tips for toes of	George A. Mitchell	Turner, Me	Jan. 5, 1858	Dec. 7, 1858.
550	Boxes for receiving passengers' fares	I. B. Slawson	New Orleans, La	July 28, 1857	May 4, 1858.
620	Caoutchouc, treatment of	Austin G. Day	Seymour, Conn	Aug. 10, 1858	Nov. 9, 1858.
541	Car-wheels, railroad	W. B. Treadwell	Albany, N. Y	Jan. 9, 1849	Mar. 30, 1858.
532	Carding-machine	S R. Parkhurst	New York, N. Y	June 20, 1848	Feb. 23, 1858.
609	Carriages, wear-iron for	I. George Lefler	Philadelphia, Pa	Sept. 8, 1857	Oct. 5, 1858.
615	Cars, railroad, elliptic cushion for	Samuel R. Jones	York, Pa	April 27, 1858	Oct. 26, 1858.
602	Cars, railroad, for day and night service	J. B. Creighton	Tiffin, Ohio	May 18, 1858	Sept. 21, 1858.
598	Cartridges	Gilbert Smith	Buttermilk Falls, N.Y.	June 30, 1857	Sept. 14, 1858.
547	Casters, syrup	Edmund Bigelow	Springfield, Mass	April 6, 1858	May 4, 1858.
539	Casting iron-pipe, employing centrifugal force in.	Thomas J. Lovegrove	Baltimore, Md	Dec. 26, 1848	Mar. 23, 1858.
611	Chairs	James Fernald	Boston, Mass	July 22, 1856	Oct. 12, 1858.
630	Churn	James Macnish	Berlin, Wis	April 20, 1858	Nov. 30, 1858.
636	Cloth, elastic, manufacture of	Horace H. Day, assignee of Richard Solis, through mesne assignments.	New York, N. Y	Nov. 7, 1848	Dec. 14, 1858.
583	Coffee-pot	Charles B. Waite and Joseph W. Sener	Fredericksburg, Va	April 22, 1856	Aug. 10, 1858.
566	Electro-magnetic alarm	A. R. Pope	Somerville, Mass	June 21, 1853	June 8, 1858.
584	Engines, steam, surface condensers for	J. P. Pirsson	New York, N. Y	April 2, 1850	Aug. 10, 1858.

List of reissues for 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Date of reissue.
631	Felting for coats, hats, &c	Marmaduke Osborn	New York, N. Y	May 28, 1842; extended for 7 years from May 28, 1856.	Nov. 30, 1858.
558	Fertilizers, machine for sowing	Warren S. Bartle, assignor to Lyman Bickford, and Henry Hoffman	Newark, N. Y Macedon, N. Y	April 22, 1856	May 18, 1858.
555	Flour from bran, machinery for separating.	J. Frost and J. Monroe, assignors to H. A. Burr, I. D. Condit, A. Swift, D. Barnum, and J. M. Carr.	New York, N. Y	Feb. 27, 1849; reissued Mar. 13, 1855.	May 11, 1858.
549	Furnace, bagasse	A. Hager and Youngs Allyn	Baton Rouge, La	May 6, 1856	May 4, 1858.
619	Furnace for burning bagasse	Elizabeth Ann Harris, administratrix of Alfred Stillman, deceased.	New York, N. Y	May 1, 1855	Nov. 9, 1858.
642	Gas-burner	A. H. Wood, assignor to I. R. Foster	Boston, Mass	Sept. 21, 1858	Dec. 28, 1858.
610	Gas-meters, dry	Alexander Angus Croll	London, England	Feb. 22, 1853	Oct. 5, 1858.
536	Gas-tube joint	Charles Monson	New Haven, Conn	Jan. 19, 1858	Mar. 9, 1858.
527	Gun, walking-stick	Ira Buckman, jr	New York, N. Y	Aug. 4, 1857	Feb. 16, 1858.
548	Harvester	Charles Crook	New Hope, Pa	May 5, 1857	May 4, 1858.
590	Harvester, (Reissue A)	N. Platt, assignor to W. H. Seymour and D. S. Morgan.	Brockport, N. Y	June 12, 1849; reissued May 23, 1854.	Aug. 31, 1858.
591	Harvester, (Division B)	N. Platt, assignor to W. H. Seymour and D. S. Morgan.	Brockport, N. Y	June 12, 1849; reissued May 23, 1854.	Aug. 31, 1858.
592	Harvester, (Division C)	N. Platt, assignor to W. H. Seymour and D. S. Morgan.	Brockport, N. Y	June 12, 1849; reissued May 23, 1854.	Aug. 31, 1858.
593	Harvester, (Division D)	N. Platt, assignor to W. H. Seymour and D. S. Morgan.	Brockport, N. Y	June 12, 1849; reissued May 23, 1854.	Aug. 31, 1858.
618	Harvester, corn	R. C. Mauck and W. T. McGahey	Conrad's Store, Va. McGaheysville, Va.	April 22, 1856	Nov. 2, 1858.
545	Harvester, grass	Jonathan Haines	Pekin, Ill	Sept. 4, 1855	April 13, 1858.
561	Harvesters, cutting device for, No. 1	Henry Green	Ottawa, Ill	Mar. 21, 1854; antedat'd Sept. 21, 1853.	May 25, 1858.
564	Harvesters, cutting device for, No. 4	Henry Green	Ottawa, Ill	Mar. 21, 1854; antedat'd Sept. 21, 1853.	May 25, 1858.
538	Hat-bodies, machinery for making	William Fasket	Meriden, Conn	Jan. 23, 1846	Mar. 23, 1858.

616	Heat, generating, mode of	William Hartell and Joseph Lancaster, assignors to Thomas R. Hartell.	Philadelphia, Pa.	Nov. 23, 1852	Nov. 2, 1858.
595	Hose, textile, manufacture of	L. B. Cooley and James C. Cooke, assignors to L. B. Cooley, S. Babcock, and B. G. Cooley.	Middletown, Conn	March 16, 1858	Aug. 31, 1858.
627	Journals of axles on railways, reducing the friction of.	Leon Joseph Pomme de Mirimond, assignor to James H. Deming.	New York, N. Y.	Feb. 2, 1858; France Aug. 23, 1856.	Nov. 23, 1858.
580	Knife polisher	R. Shaler, assignor to W. H. Horstman.	New York, N. Y.	Nov. 28, 1848	Aug. 10, 1858.
537	Lamp, lard	Isaac N. Coffin	Washington, D. C	March 17, 1857	Mar. 16, 1858.
576	Lathing surface, continuous sheet-metal.	John B. Cornell	New York, N. Y.	May 13, 1856	Aug. 3, 1858.
535	Life preserving raft	Lorenzo Taggart	Philadelphia, Pa.	Jan. 26, 1858	Mar. 2, 1858.
621	Locomotive, automatic steam whistles in	James Harrison	New York, N. Y.	April 1, 1856	Nov. 9, 1858.
534	Locomotive, engines, running gear of	Septimus Norris	Philadelphia, Pa.	Sept. 26, 1854	Mar. 2, 1858.
639	Looms for weaving figured fabrics	George Crompton	Worcester, Mass.	Nov. 14, 1854	Dec. 28, 1858.
625	Mill, grinding	Edward Harrison	New Haven, Conn.	June 6, 1854	Nov. 16, 1858.
662	Mowing machine (No. 2)	Henry Green	Ottowa, Ill.	Mar. 21, 1854; antedated Sept. 21, 1853.	May 25, 1858.
663	Mowing machine, reel supports in (No. 3)	Henry Green	Ottawa, Ill.	Mar. 21, 1854; antedated Sept. 21, 1853.	May 25, 1858.
577	Omnibus fare-box	Israel S. Reeves, assignor to J. B. Slawson.	New Orleans, La.	Feb. 23, 1858	Aug. 3, 1858.
635	Organ	William Sumner	Worcester, Mass.	Feb. 28, 1854	Dec. 14, 1858.
608	Paper from wood, manufacture of	William F. Ladd and Morris L. Keen, assignees of Charles Watt and Hugh Burgess	New York, N. Y. Philadelphia, Pa. London, England	July 18, 1854; antedated Aug. 19, 1853.	Oct. 5, 1858.
574	Paper, machine for folding	J. North, assignor to A. Hardy, assignor to S. T. Bacon	Middletown, Conn. Boston, Mass.	April 15, 1856	July 27, 1858.
596	Pavement, side-walk	John B. Cornell	New York, N. Y.	April 28, 1857	Sept. 7, 1858.
528	Pencil-sharpeners, moulds for casting	Walter K. Foster	Bangor, Me.	April 17, 1855	Feb. 23, 1858.
633	Pistols and other fire-arms	Ethan Allen	Worcester, Mass.	April 16, 1845	Dec. 14, 1858.
525	Planter, corn	Martin Robbins	Cincinnati, Ohio	Feb. 10, 1857	Feb. 9, 1858.
634	Planter, corn	Nathaniel Drake	Newton, N. J	Feb. 2, 1858; add. imp't Sept. 8, 1858.	Dec. 14, 1858.
526	Planter, seed	George W. Brown	Galesburg, Ill.	Aug. 2, 1853; antedated Feb. 2, 1853.	Feb. 16, 1858.
553	Planter, seed	B. Kuhns and M. J. Haines	Dayton, Ohio. Delaware city, Del.	Sept. 30, 1856	May 11, 1858.
623	Planter, seed	Jarvis Case	Bloomington, Ill.	Jan. 16, 1855	Nov. 16, 1858.
519	Printing press	Stephen P. Ruggles	Boston, Mass.	Jan. 1, 1851	Jan. 19, 1858.
529	Printing press	George P. Gordon	New York, N. Y.	Aug. 31, 1852	Feb. 23, 1858.

List of reissues for 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Date of reissue.
581	Printing press	George P. Gordon	New York, N. Y	Jan. 1, 1856	Aug. 10, 1858.
624	Printing press	George P. Gordon	New York, N. Y	June 13, 1854	Nov. 16, 1858.
546	Printing press, power	Isaac Adams	Boston, Mass	Oct. 4, 1830; extended by Congress Aug. 16, 1856.	April 20, 1858.
589	Pump	Hosea Lindsey	Ashville, N. C	Dec. 4, 1855	Aug. 24, 1858.
614	Pumps ventilating attachment to be applied to.	C. N. Lewis and G. C. King, assignors to George C. King.	Seneca Falls, N. Y	Nov. 17, 1857	Oct. 26, 1858.
582	Railroads, turning and sliding tables for.	W. Sellers	Philadelphia, Pa	March 23, 1858	Aug. 10, 1858.
578	Reaping-machine (A)	Cyrus H. McCormick	Chicago, Ill	Jan. 31, 1845	Aug. 3, 1858.
579	Reaping-machine (division B)	Cyrus H. McCormick	Chicago, Ill	Jan. 31, 1845	Aug. 3, 1858.
637	Reaping-machine	Cyrus H. McCormick	Chicago, Ill	Oct 23, 1847; reissued May 24, 1853.	Dec. 21, 1858.
588	Rubber goods, hard, manufacture of	Gustavus Cuppers	New York, N. Y	July 20, 1858	Aug. 24, 1858.
556	Rubber, India, manufacture of	Henry B. Goodyear, administrator of Nelson Goodyear, deceased.	New York, N. Y	May 6, 1851	May 18, 1858.
557	Rubber, india, manufacture of (division)	Henry B. Goodyear, administrator of Nelson Goodyear, deceased.	New York, N. Y	May 6, 1851	May 18, 1858.
629	Saw-mill	Hazard Knowles	New York, N. Y	Sept. 28, 1852	Nov. 30, 1858.
542	Sawing-mill	W. M. Ferry, jr	Ferrysburgh, Mich	July 21, 1857	April 6, 1858.
552	Sawing-mill	W. Hawkins and W. C. Clary	Milwaukie, Wis	March 30, 1858	May 11, 1858.
641	Screws, machinery for cutting	Thomas W. Harvey, assignor (through Charles Ely) to H. A. Harvey.	New York, N. Y	May 30, 1846	Dec. 28, 1858.
626	Screws, wood	Thomas J. Sloan, assignor to the Eagle Screw Company	New York, N.Y. / Providence, R.I.	Aug. 20, 1846; reissued Feb. 22, 1848.	Nov. 23, 1858.
524	Scythe fastenings	Pinckney Frost	Springfield, Vt	Jan. 11, 1853	Feb. 9, 1858.
554	Seeding machine	C. W. Cahoon, assignor to J. B. Cahoon and D. H. Furbish	Portland, Me	Sept. 1, 1857	May 11, 1858.
540	Separator, grain	John R. Moffitt	St. Louis, Mo	Nov. 30, 1852	Mar. 23, 1858.
517	Sewing-machine, (A)	C. Morey and J. B. Johnson, assignors to J. M. Singer and Edward Clark	Boston, Mass / New York, N. Y	Feb. 6, 1849; reissued June 27, 1854.	Jan. 12, 1858.

518	Sewing-machine, (Division)	C. Morey and J. B. Johnson, assignors to J. M. Singer and Edward Clark	Boston, Mass New York, N. Y	Feb. 6, 1849; reissued June 27, 1854.	Jan. 12, 1858.
560	Sewing-machine	T. J. W. Robertson	New York, N. Y	Feb. 26, 1856	May 18, 1858.
568	Sewing-machine	W. O. Grover and W. E. Baker, assignors to the Grover and Baker Sewing-Machine Company.	Boston, Mass	Feb. 11, 1851	June 15, 1858.
567	Sewing-machine	C. A. Durgin	New York, N. Y	May 22, 1855	June 15, 1858.
572	Sewing-machine	W. O. Grover and W. E. Baker, assignors to the Grover and Baker Sewing-Machine Company.	Boston, Mass	June 22, 1852	July 6, 1858.
573	Sewing-machine	James E. A. Gibbs, assignor to J. A. Rucknan.	Millpoint, Va	June 2, 1857	July 13, 1858.
600	Sewing-machine	James Harrison, jr	New York, N. Y	April 11, 1854	Sept. 14, 1858.
599	Sewing-machine	T. J. W. Robertson	New York, N. Y	May 22, 1855	Sept. 14, 1858.
613	Sewing-machine	Grover and Baker Sewing-Machine Co., assignees of Sherburne C. Blodgett	Boston, Mass Georgetown, Mass	Dec. 20, 1853	Oct. 12, 1858.
617	Sewing-machine	John Bachelder, assignor to Isaac M. Singer and Edward Clarke.	New York, N. Y	May 8, 1849	Nov. 2, 1858.
638	Shears	Joseph A. Braden	La Grange, Ga	Sept. 21, 1858	Dec. 28, 1858.
521	Shells, eccentric explosive	William W. Hubbell	Philadelphia, Pa	Jan. 22, 1856	Jan. 19, 1858.
604	Shingle-machine	James Crary	Middleport, Ohio	Nov. 24, 1857	Sept. 28, 1858.
601	Ship-board, hoisting winches for	Joel Bryant	Brooklyn, N. Y	April 7, 1857	Sept. 21, 1858.
570	Ships, &c., method of ventilating	Rudolph Knecht	New York, N. Y	Nov. 11, 1856	July 6, 1858.
585	Skirt-hoops	David Holmes	Westfield, Mass	June 15, 1858	Aug. 17, 1858.
565	Steam-cylinder with steam-chests, mode of connecting the.	F. E. Sickels	New York, N. Y	Sept. 19, 1845	June 1, 1858.
606	Steam-pistons, metallic packing for	Daniel Lasher	Brooklyn, N. Y	June 30, 1857	Sept. 28, 1858.
622	Stove	Joseph C. Henderson	Albany, N. Y	May 18, 1858	Nov. 9, 1858.
522	Stove, air-tight	Zephaniah Bosworth, assignor to James M. McKinley	Harmar, Ohio Dubuque, Iowa	April 6, 1842; extended April 6, 1856.	Jan. 19, 1858.
559	Stove, cooking	Austin Bronson	East Port Chester, Ct.	Aug. 22, 1848	May 18, 1858.
640	Stove, steam	J. L. Sutton, assignor to H. Downing	Norristown, Pa Philadelphia, Pa	July 20, 1858	Dec. 28, 1858.
569	Stumps, mode of extracting	William W. Willis	Orange, Mass	Mar. 6, 1855	June 22, 1858.
607	Sugar, cleansing	Francis P. Hurd, assignee by mesne assignment of Joseph Hurd.	Stoneham, Mass	Oct. 3, 1844; extended Oc. 2, 1858.	Sept. 28, 1858.
605	Telegraph, magnetic printing	Royal E. House	Binghamton, N. Y	Dec. 28, 1852	Sept. 28, 1858.
597	Trap for catching flies	Joel B. Fuller and George W. Pierce	Worcester, Mass	April 16, 1850	Sept. 7, 1858.
520	Vault-covers	George R. Jackson	New York, N. Y	April 21, 1857	Jan. 19, 1858.

List of reissues for 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Date of reissue.
587	Watch-cases, (A)	John F. Watson, assignor to W. E. Baldwin and E. Bliss	St. John's Square, Clerkenwell, Eng. Newark, N. J	April 13, 1858; England, June 16, 1857.	Aug. 17, 1858.
586	Watch-cases, (Division B)	John F. Watson, assignor to W. E. Baldwin and E. Bliss	St. John's Square, Clerkenwell, Eng. Newark, N. J	April 13, 1858; England, June 16, 1857.	Aug. 17, 1858.
628	Watch-cases	Elihu Bliss, assignor to Baldwin & Co	Newark, N. J	April 13, 1858	Nov. 23, 1858.
543	Window-shades, rollers for	J. B. Bailey	New York, N. Y	Feb. 16, 1858	April 13, 1858.
571	Workmen, machine for marking time of the attendance of.	B. T. Harris, assignor to M. E. Harris	Brooklyn, N. Y	Aug. 11, 1857	July 6, 1858.

LIST OF ADDITIONAL IMPROVEMENTS GRANTED DURING THE YEAR 1858.

No.	Inventions or discoveries.	Patentees.	Residence.	Date of patent.	Imp'ts added.
206	Bolt, swing, for fastening shutters	J. Gunner, jr	New York, N. Y	May 20, 1856	Sept. 28, 1858.
190	Bullet-mould	Henry L. De Zeng	Geneva, N. Y	March 31, 1857	Feb. 16, 1858.
197	Car-brake, automatic railroad	W. R. Jackson	Baltimore, Md	Sept. 8, 1857	March 30, 1858.
214	Car-seats and couches	Alexander M. Holmes, assignor to himself and Albert G. Purdy.	Morrisville, N. Y	Sept. 14, 1858	Dec. 21, 1858.
196	Carriage-bodies, hanging	J. M. Jones	Palmyra, N. Y	July 22, 1851	March 30, 1858.
200	Carriage-wheels, tightening the tires of	R. B. Scott	Philadelphia, Pa	March 23, 1858	June 8, 1858.
199	Chairs, rotary blast-producing	L. R. Breisach	New York, N. Y	Feb. 16, 1858	June 1, 1858.
185	File-cutting machine	Isaac H. Coller	Poughkeepsie, N. Y	Feb. 24, 1857	Jan. 12, 1858.
204	Fire arm, revolving	Frederick D. Newbury	Albany, N. Y	June 29, 1858	Sept. 28, 1858.
210	Gin-feeder, cotton	Jedediah Prescott	Memphis, Tenn	Oct. 13, 1857	Nov. 30, 1858.

195	Hoops, metallic clasps for	James R. Speer	Pittsburg, Pa	Dec.	1, 1857	March	23, 1858.
207	Hoops, metallic clasps for	James R. Speer	Pittsburg, Pa	Dec.	1, 1857	Oct.	26, 1858.
208	Lanterns, method of attaching lamps to	John Fleming	Pittsburg, Pa	July	6, 1858	Nov.	2, 1858.
191	Life-preserving berths for steam and other vessels.	Elbridge Foster	Hartford, Conn	Sept.	1, 1857	Feb.	16, 1858.
192	Lime-kiln	Powell Griscom and Charles S. Denn	Baltimore, Md	Nov.	17, 1857	Feb.	23, 1858.
187	Mill, cider	Benjamin Mackerley	New Petersburg, Ohio	Nov.	4, 1856	Jan.	19, 1858.
193	Mill, cutting flour	Jonathan Burdge	Cincinnati, Ohio	June	10, 1856	March	9, 1858.
189	Mill-stone dress for hulling rice	Charles R. Barnes	New York, N. Y	Feb.	20, 1855	Jan.	26, 1858.
205	Planter, corn	Nathaniel Drake	Newton, N. J	Feb.	2, 1858	Sept.	28, 1858.
184	Plough	Benaiah C. Hoyt	Port Washington, Wis	Sept.	2, 1856	Jan.	5, 1858.
194	Plough, steam	P. Klingle	Washington, D. C	Feb.	23, 1858	March	9, 1858.
198	Printing-press, hand	Samuel J. Smith	New York, N. Y	Nov.	3, 1857	April	6, 1858.
209	Propeller	Henry Link	Little Falls, N. Y	May	8, 1855	Nov.	16, 1858.
211	Pump, rotary	Levi Burnell	Milwaukie, Wis	Aug.	31, 1858	Dec.	14, 1858.
188	Rolls, drawing, covering for	Joseph M. Smith	Manchester, N. H	July	7, 1857	Jan.	26, 1858.
202	Shingle-machine	E. Webber	Gardiner, Me	June	28, 1857	June	15, 1858.
212	Soap, manufacture of	Dalrymple Crawford	Toronto, Canada	March	30, 1858	Dec.	14, 1858.
203	Trap for animals	F. Reuthe	Hartford, Conn	May	12, 1857	July	6, 1858.
213	Warps, dressing and sizing, machinery for.	Baxter D. Whitney	Winchendon, Mass	Aug.	11, 1857	Dec.	21, 1858.
201	Watchmakers' lathes, polishing apparatus for.	J. M. Bottum	New York, N. Y	March	13, 1855	June	8, 1858.
186	Wooden surfaces, planed, machine for smoothing.	William Bradley	Manchester, Va	Aug.	11, 1857	Jan.	12, 1858.

LIST OF DISCLAIMERS ENTERED DURING THE YEAR 1858.

Inventions or discoveries.	Patentees.	Residence.	Date of disclaimer.	Date of patent.
Ceilings, fire-proof	Palmer Sumner	New York, N. Y.	July 17, 1858	April 25, 1844; extended April 22, 1858.
Hoe	Horace A. Lothrop	Sharon, Mass	Jan. 29, 1858	Dec. 29, 1857.
Vessels for holding liquids	Sophia E. and Julia M. Stimpson and Edmund F. Coburn, assignees of James H. Stimpson.	Baltimore, Md	Nov. 12, 1858	Oct. 17, 1854.

LIST OF EXTENSIONS GRANTED DURING THE YEAR 1858.

Inventions or discoveries.	Patentees.	Residence.	Date of extension.	Date of patent.
Barrels and other casks, machine for making.	Isaac Crossett	Bennington, Vt	June 26, 1858	July —, 1844; reissued Mar. 2, 1858.
Boot-crimps	Josiah Copeland	Weymouth, Mass	Jan. 11, 1858	Jan. 20, 1844; reissued Aug. 11, 1857.
Bridges, truss-frames of	Caleb Pratt T. Willis Pratt	Newton, Mass Middletown, Conn.	Mar. 27, 1858	April 4, 1844.
Car-wheels, railroad, method of making cast-iron.	E. A. Lester	Boston, Mass	Aug. 9, 1858	Aug. 10, 1844.
Cloth, machinery for folding and measuring.	Silas C. Durgin	Holyoke, Mass	Mar. 3, 1858	Mar. 9, 1844.
Gates, lock, manner of suspending, opening, and closing.	Henry McCarty	Pittsburg, Pa	Mar. 15, 1858	Mar. 16, 1844.
Gin, cotton, saw	Eleazer Carver	Bridgewater, Mass	Dec. 27, 1858	Jan. 4, 1845.
India-rubber fabrics	Charles Goodyear	New Haven, Conn	June 14, 1858	June 15, 1844; reissued in two patents Dec. 25, 1849.

Lard, method of rendering	Charles Wilson, administrator of Ebenezer Wilson, deceased.	St. Louis, Mo	Oct. 7, 1858	Oct. 9, 1844.
Lath, metallic	Palmer Sumner	New York, N. Y	April 22, 1858	April 25, 1844.
Leather, machinery for splitting strips or pieces of.	Hubbard Harris, administrator of Alpha Richardson, deceased.	North Enfield, N. H	April 16, 1858	April 17, 1844.
Presses, hay	Joseph Eaton, Administrator of Charles F. Paine, deceased.	Winslow, Me	April 21, 1858	April 25, 1844.
Saws, circular, method of applying, for cutting off piles under water.	Erastus E. Cole	Somerville, Mass	Sept. 2, 1858	Sept. 14, 1844.
Ships' blocks	Isaac D. Russell and Cornelia Waterman, administratrix of Stephen Waterman, deceased.	New York, N. Y	Jan. 31, 1858	Jan 31, 1844; reissued June 9, 1857.
Stone, coal	Henry Stanley	Albany, N. Y.	Dec. 24, 1858	Jan. 4, 1845.
Straw-cutter	H. M. Smith	Richmond, Va	Feb. 17, 1858	Feb. 20, 1844.
Sugar, cleansing	F. P. Hurd, administrator of J. Hurd, deceased, and assignee through mesne assignments of said J. Hurd.	South Reading, Mass	Oct. 2, 1858	Oct. 3, 1844; reissued Sept. 28, 1858.
Tonguing and grooving machine	C. W. Brown	Boston, Mass	July 28, 1858	Aug. 14, 1844; reissued Feb. 5, 1856.
Type-casting machine	David Bruce, jr	Brooklyn, N Y	June 28, 1858	Nov. 6, 1843.
Valves of steam-engines, method of opening and closing.	F. E. Sickels	New York, N. Y	Oct. 8, 1858	Oct. 19, 1844.

LIST OF PATENTS FOR DESIGNS GRANTED DURING THE YEAR 1858.

No.	Designs.	Patentees.	Residence.	Date.
1008	Aquarium	A. L. Blanchard	Albany, N. Y.	June 1, 1858.
1024	Bedsteads	H. Neidig	New York, N. Y.	July 13, 1858.
1025	Bedsteads	H. Neidig	New York, N. Y.	July 13, 1858.
1050	Bedsteads, cast-iron	Philip Tabb	New York, N. Y.	Sept. 14, 1858.
995	Bedsteads, iron, legs and posts of	John P. Koch	New York, N. Y.	Mar. 23, 858.
1074	Book-marks	William B. French	Charlestown, Mass	Dec. 14, 1858.
1049	Bottles, nursery	Francis Kern	Sandwich, Mass	Sept. 14, 1858.
1001	Box, tool	Herrick Aiken	Franklin, N. H	May 11, 1858.
1030	Can-covers	John F. Bodine, assignor to himself and William H. & J. Alfred Bodine.	Williamstown, N. J	Aug. 3, 1858.
993	Carriage-hub sand-bands	James Ives	Hamden, Conn	Mar. 9, 1858.
1000	Clock-case fronts	Samuel B. Jerome	Waterbury, Conn	May 4, 1858.
1070	Coffins, metallic	William H. Forbes	New York, N. Y	Dec. 7, 1858.
990	Compass stands	E. A. Tuttle & Thomas Barry	New York, N. Y	Feb 23, 1858.
1034	Door-lock plates	Cornelius B. Erwin	New Britain, Conn.	Aug. 10, 1858.
1035	Door-lock plates	Cornelius B. Erwin	New Britain, Conn.	Aug. 10, 1858.
1036	Door-lock plates	Henry E. Russell	New Britain, Conn.	Aug. 10, 1858.
1053	Fences, cast-iron	Martin Briggs	Rochester, N. Y.	Oct. 5, 1858.
1069	Fences, iron	Edwin Gomez	New York, N. Y	Nov. 30, 1858.
1057	Lockets	A. C. Randall	Providence, R. I	Oct. 19, 1858.
1054	Marks, trade	Richard P. & Charles Bruff & George A. Seaver.	New York, N. Y.	Oct. 5, 1858.
1046	Pans, bread	Nathaniel Waterman	Boston, Mass	Aug. 31, 1858.
1028	Pitchers	George W. Smith	Hartford, Conn	July 20, 1858.
991	Pots, tea and coffee	Allen Leonard, assignor to Rodgers Brothers Manufacturing Co.	Hartford, Conn	Feb. 23, 1858.
994	Press-stand, copying	Charles H. Clayton	New York, N. Y.	Mar. 23, 1858.
1023	Range-fronts	A. C. Barstow	Providence, R. I	July 6, 1858.
1073	Ranges, cooks'	G. Smith & H. Brown, assignors to G. Abbott & A. Lawrence.	Philadelphia, Pa.	Dec. 14, 1858.
1043	Roll-pans	Nathaniel Waterman	Boston, Mass	Aug. 17, 1858.
1045	Screens	James L. Jackson	New York, N. Y.	Aug. 31, 1858.
997	Screens for steam-pipes, &c. (No. 1)	J. L. Jackson	New York, N. Y.	April 13, 1858.
998	Screens for steam-pipes, &c. (No. 2.)	James L. Jackson	New York, N. Y.	April 13, 1858.

1012	Sewing-machine stands	J. Willcox	Philadelphia, Pa.	June 1, 1858.
989	Sewing-machines, tables for	S. F. Pratt	Roxbury, Mass	Feb. 16, 1858.
1056	Shovels, cast-iron fire	William Bennett	New York, N. Y.	Oct. 12, 1858.
988	Spoons, &c., handles of	Henry Hebbard & John Polhamus	New York, N. Y.	Feb. 16, 1858.
1062	Stand, hat and cane	Edward Reynolds, assignor to Thomas W. Brown.	Boston, Mass	Nov. 16, 1858.
1007	Stand, towel	N. Waterman	Boston, Mass	May 25, 1858.
1032	Stand, towel	Nathaniel Waterman	Boston, Mass	Aug. 3, 1858.
1060	Statuette of Henry Clay	T Ball, assignor to George W. Nichols	Boston, Mass	Nov. 9, 1858.
973	Stove	N. S. Vedder, assignor to George W. Eddy	Troy, N. Y.	Jan. 5, 1858.
975	Stove	Charles J. Shepard	Brooklyn, N. Y	Jan. 5, 1858.
984	Stove	N. S. Vedder & William L. Sanderson, assignors to George Warren.	Troy, N. Y.	Jan. 12, 1858.
983	Stove	N. S. Vedder & William L. Sanderson, assignors to L. Potter & Co.	Troy, N. Y.	Jan. 12, 1858.
982	Stove	N. S. Vedder & Ezra Ripley, assignors to L. Potter & Co.	Troy, N Y.	Jan. 12, 1858.
980	Stove	Peter A. Palmer	Troy, N. Y.	Jan. 12, 1858.
976	Stove. (Leader)	David Hathaway, assignor to Fuller, Warren, & Morrison.	Troy, N. Y.	Jan. 12, 1858.
977	Stove. (Consul.)	David Hathaway, assignor to Fuller, Warren, & Morrison.	Troy, N. Y.	Jan. 12, 1858.
978	Stove. (Viola.)	David Hathaway, assignor to Fuller, Warren, & Morrison.	Troy, N. Y.	Jan. 12, 1858.
979	Stove. (Pride of the West.)	David Hathaway, assignor to Fuller, Warren, & Morrison.	Troy, N. Y.	Jan. 12, 1858.
986	Stove	A. C. Barstow	Providence, R. I.	Jan 19, 1858.
1017	Stove	J. A. Reed, assignor to D. Stuart & J. Peterson.	Philadelphia, Pa.	June 29, 1858.
1016	Stove	J. Horton, assignor to D. Stuart & J. Peterson.	Philadelphia, Pa.	June 29, 1858.
1027	Stove	N. S. Vedder, assignor to G. W. Eddy	Troy, N. Y.	July 13, 1858.
1029	Stove	G. Smith & H. Brown, assignors to G. Abbott & A. Lawrence.	Philadelphia, Pa.	July 20, 1858.
1041	Stove. (Fancy Egg.)	Jacob Steffe, James Horton, & John Currier, assignors to David Stuart & Richard Peterson.	Philadelphia, Pa.	Aug. 17, 1858.
1042	Stove. (Ironsides.)	Jacob Steffe, James Horton, & John Currier, assignors to David Stuart & Richard Peterson.	Philadelphia, Pa.	Aug. 17, 1858.
1048	Stove	Nathaniel P. Richardson	Portland, Me	Sept. 7, 1858.
1052	Stove	G. Smith & H. Brown, assignors to North, Chase, & North.	Philadelphia, Pa.	Sept. 21, 1858.
1059	Stove	E. J. Cridge	Troy, N. Y.	Nov. 2, 1858.

List of patents for designs, 1858.

No.	Designs.	Patentees.	Residence.	Date.
1061	Stove	Lyman L. Thomas, assignor to Dighton Furnace Company.	North Dighton, Mass.	Nov. 9, 1858.
1037	Stove, box	N. P. Vedder and Ezra Ripley, assignors to N. S. Vedder.	Troy, N. Y.	Aug. 10, 1858.
1038	Stove, cooking	N. S. Vedder	Troy, N. Y.	Aug. 10, 1858.
974	Stove, cooks'	G. Smith, H. Brown, and S. H. Sailor, assignors to Alexander Small and E. G. Smyzer.	Philadelphia, Pa	Jan. 5, 1858.
996	Stove, cooks'	G. W. Pittock, G. G. Richmond, and C. Phelps, assignors to themselves and J. Sown.	Troy, N. Y.	April 6, 1858.
999	Stove, cooks'	R. Wheeler and S. A. Bailey	Utica, N. Y.	May 4, 1858.
1003	Stove, cooks'	S. W. Gibbs, assignor to Rathbone & Co.	Albany, N. Y.	May 11, 1858.
1002	Stove, cooks'	T. H. Wood, J. E. Roberts, and H. S. Hubbell.	Utica, N. Y.	May 11, 1858.
1010	Stove, cooks'	E. J. Delany and J. Martino, assignors to W. P. Cresson, D. Stuart, and R. Peterson	Philadelphia, Pa	June 1, 1858.
1018	Stove, cooks'	G. Smith and H. Brown, assignors to Leibrandt, McDowell, & Co.	Philadelphia, Pa	June 29, 1858.
1019	Stove, cooks'	G. Smith and H. Brown, assignors to Leibrandt, McDowell, & Co.	Philadelphia, Pa	June 29, 1858.
1026	Stove, cooks'	E. J. Delany, assignor to H. E. March and J. Johnson.	Philadelphia, Pa	July 13, 1858.
1031	Stove, cooks'	R. Ham, assignor to Smith, Sheldon, & Co.	Troy, N. Y.	Aug. 3, 1858.
1044	Stove, cooks'	William P. Abendroth	Port Chester, N. Y.	Aug. 31, 1858.
1055	Stove, cooks'	N. S. Vedder, assignor to G. W. Eddy	Troy, N. Y.	Oct. 5, 1858.
1063	Stove, cooks'	A. C. Barstow	Providence, R. I.	Nov. 16, 1858.
1047	Stove, cooks' oven	William W. Stevens, assignor to Nathaniel P. Richardson & Co.	Westbrook, Maine	Sept. 7, 1858.
1071	Stove, dining-room	George D. Sprecher	Lancaster, Pa	Dec. 7, 1858.
1005	Stove-doors	J. Beesley, assignor to J. C. Clark and Washington Harris.	Philadelphia, Pa	May 11, 1858.
1013	Stove-doors	R. H. N. Bates, assignor to himself, Isaac Backus, and J. P. Barstow.	Providence, R. I.	June 8, 1858.
1004	Stove, parlor	S. W. Gibbs, assignor to Rathbone & Co.	Albany, N. Y.	May 11, 1858

1039	Stove, parlor	N. S. Vedder	Troy, N. Y.	Aug. 10, 1858.
1072	Stove, parlor	G. Smith and H. Brown, assignors to Leibrandt, McDowell, & Co.	Philadelphia, Pa.	Dec. 14, 1858.
987	Stove-plates	E. S. Delany and John Martino, assignors to Cresson, Stuart, and Peterson.	Philadelphia, Pa.	Feb. 16, 1858.
992	Stove-plates	N. S. Vedder and Ezra Ripley, assignors to Louis Potter.	Troy, N. Y.	Feb. 23, 1858.
1015	Stove-plates	S. W. Gibbs, assignor to Rathbone & Co.	Albany, N. Y.	June 22, 1858.
1065	Stove-plates	Samuel D. Vose	Albany, N. Y.	Nov. 23, 1858.
1066	Stove-plates	Samuel D. Vose	Albany, N. Y.	Nov. 23, 1858.
1067	Stove-plates	Samuel D. Vose	Albany, N. Y.	Nov. 23, 1858.
1068	Stove-plates	Samuel D. Vose	Albany, N. Y.	Nov. 23, 1858.
1011	Stoves, &c., ornament in bas-relief for	G. T. Seavey	Boston, Mass.	June 1, 1858.
1058	Tablets, cast metal	Ezra Clarke, assignor to Seth Clarke	Portland, Maine	Oct. 26, 1858.
981	Tea-service	Henry G. Reed, assignor to himself and Charles E. Burton.	Taunton, Mass.	Jan. 12, 1858.
985	Types	George Bruce	New York, N. Y.	Jan. 19, 1858.
1020	Types	James Conner	New York, N. Y.	July 6, 1858.
1009	Types, a font of	James Conner	New York, N. Y.	June 1, 1858.
1014	Types, printers'	George Bruce	New York, N. Y	June 15, 1858.
1021	Types, printers'	James Conner	New York, N. Y	July 6, 1858.
1022	Types, printers'	James Conner	New York, N. Y.	July 6, 1858.
1033	Types, printers'	George Bruce	New York, N. Y.	Aug. 10, 1858.
1064	Types, script	James Conner	New York, N. Y.	Nov. 16, 1858.
1006	Types, set of printing	George Bruce	New York, N. Y.	May 25, 1858.

DESCRIPTIONS AND CLAIMS OF PATENTS,

ISSUED IN THE YEAR 1858.

ILLUSTRATED WITH ENGRAVINGS.

[To find the Plates, see Index at the end of this Report.]

I.—AGRICULTURE.

No. 19,520.—Solomon Stansberry, of Knoxville, Tenn.—*Improvement in Bee-Hives.*—Patent dated March 2, 1858.—The hives B are not provided with bottoms, and the lower ends of their sides *d* rest on the upper surfaces of concaves *e*, which extend from the front to the back end of the case A. D D D D represent cylinders, the front and back ends of which are fitted in the case A, a cylinder being underneath its concave. A part F is placed directly underneath each hive B, the parts F adjoining each other, and having their edges at their upper sides hollowed out to form a concave, as shown at *g*; so that when the parts F are raised, the concave of the two adjoining parts F will form a concave for the under part of the cylinder directly above them.

The inventor says: I do not claim enclosing one or more hives within a case or box A, for this has been previously done.

Nor do I claim spare honey-boxes C applied to the hives B, for these are commonly used.

But I *claim* the cylinders D placed within the hives, or below them, and fitted within concaves *e g*, arranged in any proper way so as to operate substantially as and for the purpose set forth.

No. 19,931.—Kimball P. Kidder, of Burlington, Vt.—*Improvement in Bee-Hives.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the particular construction of the hive, so that the smaller portion may fit within the larger portion and leave a dead air space between them, or raised up and supported on the division or partition boards to form two hives; the whole being constructed and operating as herein set forth.

And I also claim, in combination with the hive constructed as described, the device *w* for regulating or entirely cutting off the ingress or egress openings; said device being susceptible of four distinct adjustments, as set forth and explained.

No. 20,202.—Edward P. French, of Nashua, N. H.—*Improvement in Bee-Hives.*—Patent dated May 11, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I am aware that it is not new to place a feeding-chamber in front of the hive, or the end thereof; also, that it is not new to arrange a feeding-chamber in one of the secondary chambers or honey boxes. I do not claim such, as, in the one case, the feed-chamber is exposed to robber bees; while, in the other, it is arranged in an inconvenient manner, and is objectionable in many respects.

I *claim* making the lower part, or both sides, of the main chamber B inclined towards the orifice of entrance *e*, in combination with the arrangement of an exercising and entrance chamber D, chamber F, feeding-box *h*, warm air spaces G G G, and air or ventilating passage O leading from the exercising chamber D upwards against the front sides of the secondary chambers, and over their tops into the chamber I, the main chamber communicating with said passage only by means of orifice *e* at its bottom, whereby the main and secondary chambers are kept warm, and at the same time relieved of bad air or carbonic acid gas by a ventilating current of air induced by their heat; the several parts being arranged as respects each other, and constructed as described, for the purpose set forth.

No. 20,417.—Philander J. Furlong, of Galen, N. Y.—*Improvement in Bee-Hives.*—Patent dated June 1, 1858.—The nature of this invention consists in the employment of a glass roof or condenser A A^1 with tin conductors C C^1, whereby all moisture as it rises to the top of the hive in the form of vapor is condensed and conducted out of the hive.

Claim.—The arrangement of the glass roof AA^1 with relation to the cover of a bee-hive and to the conductors C C^1; the whole being constructed and operated in the manner and for the purpose described.

No. 20,508.—Thomas Prosser, of Birmingham, Penn.—*Improvement in Bee-Hives.*—Patent dated June 8, 1858.—The nature of this invention consists in providing, intermediate between the external ingress passage and the internal entrance passage to the ante-chamber of the hive, a series of auxiliary indirect or labyrinthian passages *a a a*, in combination with isolated suspended shafts H and glass-covered entrances G G to the working chamber. The object of this invention is to effect a perfect exclusion of vermin from the honey.

Claim.—The combination in bee-hives of the labyrinthian passages *a a a*, suspended shafts H H, and glass entrances G G, when said parts are constructed and arranged, relatively to each other, in the manner and for the purposes set forth.

No. 21,163.—Thomas H. Windle, of Wagontown, Penn.—*Improvement in Bee-Hives.*—Patent dated August 10, 1858.—This invention consists in a peculiar mode of constructing the moth-trap and a self-cleaning sliding bottom to each of the sections of the bee apartments, so that the moths and their deposits may be more effectually secured and removed from the hive, without damage either to the bees or the apiarist.

The inventor says: I am aware that bee-hives have been made with a moth-trap attached, and also with sections of separate bee apartments, arranged together and communicating with each other, and

having ventilating holes therein, substantially as described; therefore, I do not claim, broadly, either of these devices; but—

First, I *claim* the combined arrangement, in the moth-trap B, of the tapering moth-tubes 11, 11, 11, and the ventilated bee escape tubes 12 12, when the same are used in combination with the hive, the whole being constructed in the manner and for the purposes set forth and described.

Second, I also claim making each of the larger bee apartments C with the self-cleaning slide 4, the said slide being constructed as described, and applied in connexion with the tongued piece 7, so as to operate substantially in the manner and for the purpose set forth and described.

No. 21,912.—Peter Taltavull, of Washington, D. C.—*Improvement in Bee-Hives.*—Patent dated October 26, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The arrangement of a simple rectangular containing-box, suspended diagonally, in combination with honey boxes therein arranged similarly, all having outlets or passages downward from their extreme lower edges; whereby the entire hive is rendered self-clearing, and a sloping roof, by the same arrangement, is produced, substantially as specified.

No. 22,030.—Ebenezer W. Phelps, of Elizabeth, N. J.—*Improvement in Bee-Hives.*—Patent dated November 9, 1858.—The interior of the hive consists of movable frames A, arranged side by side, supported and kept in proper place at top and bottom by means of small wire staples *d* and d^1 driven into the case, to correspond with wire hooks secured to the upper and lower corners of the frames in front. The rear part of the frame is supported by means of a pin *f* in the upper end of the frame, falling into a groove in the cross-piece B^1, one and a half inch wide, extending across the rear of the case, forming a support for the upper edge of the pane of glass L in the rear.

Claim.—The small sectional adjustable frames *a*, set in the main frame A by means of half round grooves and rod *g*, operating as described and for the purposes set forth.

No. 22,059.—Asa Blood, sr., of Norfolk.—*Improvement in Bee-Hives.*—Patent dated November 16, 1858.—The nature of this invention consists in so constructing a hive that the breeding bees are separated from the working bees, while the honey made can be removed without disturbing either.

Claim.—The main or breeding core B, in enclosing case C, in combination with the honey cores D in cap E; the several parts being constructed and arranged in the manner and for the purposes specified.

No. 22,309.—Joseph D. Sanderson, of Stetson, Me.—*Improvement in Bee-Hives.*—Patent dated December 14, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The inventor says: I do not claim the employment or use of space honey boxes placed around a hive and communicating with it; for these have been previously used.

Neither do I claim, broadly, ventilating the hive by having a cur-

rent of air passing vertically through it by means of apertures or openings at the top and bottom; for this has been previously done.

Nor do I claim the perforated horizontal tubes I I, nor the box J.

But I *claim* the holes *h*, in the back of the hive, communicating with the grooves *i* in the doors E E, and the grooves *j* in the under side of the top F of the box A, in connexion with the boxes G, provided with perforated plates K, whereby the hive is perfectly ventilated, and the rain excluded.

No. 19,288.—C. Sumner Dickerman, of Lansingburg, N. Y.—*Improvement in Cards for Currying Cattle.*—Patent dated February 9, 1858.—The straight wire teeth A are forced into the face side of the wooden card stock B, but not through the stock. C is the handle of the card; but a strap or thumb-piece may be attached to the card stock to fit it for hand use, instead of the handle C.

The inventor says: I disclaim a wooden cylinder furnished with teeth, and furthermore restrict my claim to a hand card made as described.

I *claim* a hand card consisting of a flat wooden stock having straight wire teeth forced into but not through the stock, as described, and provided with a handle C, or its equivalent, to fit the card for hand use, as set forth.

No. 19,034.—Silas F. Lefler, of Racine, Wis.—*Improved Churn.*—Patent dated January 5, 1858.—This invention is described by the claim and engravings.

Claim.—A churn constructed in two compartments, A and B, the one open and the other closed, when provided with gate-ways *x* and *y*, and gate G, or their equivalents; the whole being arranged in the manner substantially as set forth, whereby the cream during the operation of churning is passed in a continuous current through them, and the butter gathered together for the purposes described.

No. 19,117.—Michael L. Bauder, of Elyria, Ohio.—*Improved Churn.*—Patent dated January 19, 1858.—The nature of this invention consists in two sets of beaters, on two shafts, so situated in an elongated vessel that the beater on one shaft whirls all the cream in one end of the churn alternately forwards and backwards, whilst the beater on the other shaft whirls all the cream in the other end of the churn in an opposite direction; for the purpose of driving the currents of cream violently into each other at the central parts of the churn, where the air is drawn into the cream, thus hastening the churning of the entire mass.

The inventor says: I am aware that shafts armed with beaters have been employed in circular churns, but this arrangement does not enable the beaters to control the masses of cream, and drive them through each other, as in my machine; and I also know that such beaters have been employed with a reciprocating motion of the shafts. These I do not claim.

But I *claim* the arrangement of the elongated vessel F, provided with shafts D D, armed with beaters, in connexion with the case A, constructed and operated substantially as set forth.

No. 19,310 —Enos Page, of Streetsborough, Ohio.—*Improved Churn.*—Patent dated February 9, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says : I do not claim the simple use of spiral dashers, arranged so as to force the cream alternately in opposite directions, being aware that such is not new.

But I *claim* the arrangement of the spiral wing dashers E E, on opposite sides and ends of the dasher shaft, in combination with a cylindrical churn body, in such a manner that the outer radial edges *d d* thereof shall respectively sweep or move in close proximity to the ends of the churn body, and their spiral edges *e e' e' e'* sweep respectively one-half the length of the periphery of the churn body, substantially in the manner and for the purpose specified.

No. 19,334.—H. D. Baker, of Pittstown Corners, N. Y.—*Improved Churn.*—Patent dated February 16, 1858.—The operator sits in the chair C, places one foot on treadle E, and the other on the platform B. The chair C is then oscillated, being moved forward by the inclination of the body, and thrown back by the foot which rests on the platform. This movement vibrates the treadle E, which rotates shaft F and wheel G ; the latter, in consequence of the guides *f f* of the bar H fitting in the grooves *e e*, giving the dash-rod *k* a reciprocating motion, two complete strokes being given to the rod at every revolution of the shaft F and wheel G.

The inventor says : I *claim* operating the dash-rod K of the churn L through the medium of the oscillating chair C, treadle E, crank shaft F, grooved wheel G, and bar H, connected with lever I ; it being understood that I do not claim, separately, any of the described parts, but the whole, when combined and arranged to operate as and for the purpose set forth.

No. 19,389.—Charles M. Vail, of Susquehannah Depot, Pennsylvania.—*Improved Churn.*—Patent dated February 16, 1858.—A frame for support of machinery, B churn, C dasher, D balance-wheel and belt-wheel combined, D^1 connecting pulley, D^2 strap or belt, E crank for hand, F attaching crank from pulley D^2 to horizontal connecting rod, G H graduated lever, I connecting shaft of lever H and lever J, L perpendicular connecting rod of levers H and J, M attaching arm and support of regulator, M^1 passing through connecting shaft N, N^1 continuation of shaft N passing through frame A, Q director passing through upper part of framework.

Claim.—The use of the graduated levers in connexion with the governor M^1, the whole constructed as described, and operating on the dasher-staff through the director Q, keeping it in a vertical position, and avoiding friction, as set forth.

No. 19,782.—John A. Jordan, of Shelbyville, Tennessee.—*Improved Churn.*—Patent dated March 30, 1858.—The claim and engraving will explain the nature of this invention.

Claim.—The employment of the revolving wheel D and stationary wheel C, constructed and operating in the churn as set forth, the

bottom of the same being fitted to a stove casing in the manner and for the purposes specified.

No. 19,828.—Harvey Brown, of New York, N. Y.—*Improvement in Churns.*—Patent dated April 6, 1858.—A are the trailing paddles, of which there are twelve in the model; any number desired can be put in; B are the disks or wheels upon which the gearing are mounted, and by which they are moved by means of the crank; C are the shafts, D the links, and E the connecting rods.

The object of this invention is the churning of butter by agitation incidentally, but more particularly by friction, from the operation of the trailing paddles as attached to an endless chain.

Claim.—The arrangement of the trailing paddles, wheels, and gearing, operated substantially in the manner and for the purpose set forth.

No. 20,025.—James Macnish, of Berlin, Wisconsin.—*Improved Churn.*—Patent dated April 20, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The combination of a central spiral flanched or winged agitating shaft C, with a series of encircling expressing rollers A A, a portion of which have a direct motion in one direction, while the others have an indirect motion in an opposite direction.

No. 20,062.—T. B. Harper, of Xenia, Ohio.—*Improved Churn.*—Patent dated April 27, 1858.—In using this churn, when the winch is turned so as to couple the pinion H to the shaft D, the dashers will be made to turn in opposite directions, and cause the bevelled wings *c c* and *d d* to produce an intense agitation of the cream for the purpose of churning. In gathering butter, the winch is turned in the other direction, so that but slight agitation is produced on account of the inner dasher being stopped.

Claim.—The combination of the pinion H, disk L, and pin *h*, constructed and arranged as described, and operating, in relation to the winch I and dashers B C, in the manner and for the purpose specified.

No. 20,089.—G. S. Rarey, of Columbus, Ohio.—*Improved Churn.*—Patent dated April 27, 1858.—This invention consists in a novel means employed for giving a reciprocating motion to a vertical dasher from a rotating driving shaft, whereby the necessary length of stroke may be given to the dasher, and also the requisite speed.

Claim.—Operating or giving the dasher K a reciprocating rectilinear motion from the driving rotary wheel E, through the medium of the pinion F, crank pulley F, connecting rod G, segment H, and rack bar I, arranged to operate as shown and described.

No. 20,189.—William Brown, of Duncannon, Pa.—*Improved Churn.*—Patent dated May 11, 1858.—The churn dasher is agitated by giving the dasher a continuous rotating motion in the direction of the arrow; and as fast as the butter is produced the flanges collect and retain it upon the slatted wings, until the wings rise out of the

cream and assume a position which compels it to fall into the concaves of the solid hub. As the butter rolls into the concaves of the hub, the milk escapes between the slats of the wings.

Claim.—The combination in a churn dasher of a series of slatted agitating and separating wings *c c c c*, a series of gathering and retaining flanges *e e e e*, and a solid concaved roll-forming hub *a;* all substantially as and for the purposes set forth.

No. 20,740.—William H. Tambling, of Berlin, Wis.—*Improved Churn.*—Patent dated June 29, 1858.—This invention consists in arranging a skeleton semi-sphere H on the upper side of the upper dasher G^1 of reverse-acting or forward and back acting churns; so that the tendency of the cream or milk to fly out centrifugally will be counteracted and its direction reversed, and it rolled over and compelled to move centripetally, or toward the centre.

Claim.—Arranging a skeleton semi-sphere H on the upper side of the upper dasher G^1 of reverse-acting or forward and back acting churns, substantially as and for the purposes set forth.

No. 20,730.—Alfred Rose, of Penn Yan, N. Y.—*Improvement in Churns.*—Patent dated June 29, 1858.—The arm or cross-piece D is attached to the lower end of the staff *c*, and is made to support the cam-wheels E E and F F. The wheels E E are placed on the upper side of the piece D, and the wheels F F on the under side. H is a semicircular support for the upper end of the shaft.

Claim.—The cam-wheels E E and F F and the part D, constructed and arranged in the manner represented and for the purpose set forth.

No. 20,803.—James Macnish, of Berlin, Wis.—*Improvement in Churns.*—Patent dated July 6, 1858.—By this invention the cream or milk is subjected to a thorough friction and expressing action, and the globules or sacs which contain the fatty particles of butter are effectually broken. This invention is designed to supersede the old agitating process of making butter.

Claim.—Effecting the breakage of the globules or sacs which contain the fatty particles of the milk or cream by the combined forces of compression and friction, employing for producing these forces a roller D, in combination with a stationary concave E, the roller revolving within and coming in contact with said concave, substantially as and for the purposes set forth.

No. 20,804.—James Macnish, of Berlin, Wis.—*Improvement in Churns.*—Patent dated July 6, 1858.—This invention is designed for producing butter by friction. The friction principle is claimed in its application to upright churns which have two dashers revolving in opposite directions.

The inventor says: I *claim*, first, the combination of the inner set of tangentially set-spring wings I I with the outer set of wings G^1 G^1 G^1 G^1, substantially as and for the purposes set forth.

Second. The combination of the friction plates H J with the two sets of spring wings and the churn tub, substantially as and for the purposes set forth.

No. 20,898.—N. H. Sherburne, of Campton, Illinois.—*Improved Churn.*—Patent dated July 13, 1858.—This invention has reference to the agitator end, and consists in two systems of blades rotating in opposite directions, and capable of separate lateral adjustment.

The inventor says: I disclaim the mere rotation of the two parts of the agitator in opposite directions, and also the construction of agitators with movable parts broadly considered.

But I *claim* the combination of heads H H^1, slides B, blades C C^1, and opposite rotating shafts S S^1, constructed, arranged, and operating substantially as and for the purpose set forth.

No. 20,878.—James Hatfield, of Falmouth, Ind., and Henry M. Goldsmith, of Burlington, Iowa.—*Improvement in Churns.*—Patent dated July 13, 1858.—The nature of this improvement is such that while there is a double-acting compound agitator, at the same time the adjustable brakes F F at the bottom form a powerful reaction of the cream, thus expediting the process of butter-making. The adjustable belt and brakes are easily taken out and washed, leaving but the smooth surface of the vessel to clean.

The inventors say: We *claim*, first, the manner and form of inserting the adjustable brakes, as described and shown.

Second. The basin or reservoir lid, with the glass slide attachment, as described and shown.

Third. The quarter-circle wings, or dashers, at each end of the shaft, in the form and position described and shown.

No. 21,010.—M. R. Marcell, of Dansville, New York.—*Improved Churn.*—Patent dated July 27, 1858.—This invention consists in throwing a current of atmospheric air through the dasher into the churn, and causing it to issue in fine jets from the dasher-shaft *b*, and also from the wings of the dasher *c*, below the surface of the cream or milk in the churn, by puncturing both the hollow dasher-shaft and the wings with small holes below the surface of the fluid in the churn; by which means the mingling of the atmospheric air with the whole mass of the fluid in the churn A is more rapid. Also in arranging in a churn a series of double punctured and curved plates, which are riveted at the exterior angle, with their convex surfaces toward each other, and facing the centre of the churn, so that the convex surface of one plate forms the deflecting surface of the fluid passing through the openings of the adjacent plate; thus the mechanical action of the fluid is increased, and the formation of butter facilitated.

The inventor says: I do not confine myself to the precise position or arrangement of the fan-blower, as it may be placed on the side instead of the top of the churn, and connected with the driving-shaft by bevel or spur gearing.

I *claim*, first, in combination with the blower, the dasher constructed substantially as described, whereby a current of air blown through the dasher-shaft is caused to issue from the dasher, below the surface of the fluid in the churn, in fine jets, for the purpose set forth.

Second. The double deflecting plates, constructed substantially as described, in combination with a churn box, for the purpose as set forth.

No. 21,176.—James S. Appleton, of White River Junction, Vermont.—*Improved Churn.*—Patent dated August 17, 1858.—The vessel *m*, in which the churning operation is performed, is of a cylindrical shape, and may be made of any suitable material. Any form of dasher may be combined with the dasher shaft *j* which may be deemed expedient.

The requisite reciprocating movements are imparted to the dasher shaft *j*, and the vessel *m* is secured in a swinging frame, whilst the said movements are imparted to its dasher in such a manner that the said vessel can freely adapt its movements to the swinging movements of the churn dasher.

The inventor says: I *claim* securing the churning vessel *m* within a freely swinging frame, when the dasher of the churn is operated by means of a crank-shaft, pitman, and vibrating beam, constructed, arranged, and operated as set forth.

No. 21,374.—John F. Smith, of Galen, New York, and Wightman Brown, of Rose, New York.—*Improved Churn.*—Patent dated August 31, 1858.—This invention consists of a box or frame containing a cylindrical case, divided by a central vertical partition into two chambers of nearly equal capacity. In one of these is arranged the clock work or machinery for operating the churn; the other constitutes the milk chamber, and contains the beaters. The driving machinery is placed in a secondary or interior case K, which is provided with the sliding covers *l l*, which close tightly while in operation, and prevent the oil or odor of the frictional parts from reaching and tainting the butter.

The inventors say: We do not claim as our invention an automatic churn.

But we *claim* the combination and arrangement of the cylinder divided into two chambers, for the purposes described, by the partition M, the close interior case R, adjustable vane blower and regulator E, refrigerating passage Y, and ventilators *v v*, operating conjointly, as and for the purpose specified.

No. 21,501.—Daniel Johnson, of New York, N. Y.—*Improved Churn.*—Patent dated September 21, 1858.—The nature of this invention consists in the employment of two or more rollers, when placed horizontally and with their peripheries touching or nearly touching one another, in combination with a revolving dasher which is arranged underneath said rollers and in the same box or chamber with the same.

Claim.—The employment of two or more rollers D, when placed horizontal and with their peripheries touching or nearly touching one another, in combination with a revolving dasher, which is arranged underneath said rollers and in the same box or chamber with the same, substantially as and for the purposes set forth.

No. 21,575.—Andrew Ralston, of West Middletown, Pa.—*Improved Churn.*—Patent dated September 21, 1858.—The nature of

this invention consists in an arrangement for agitating, cutting, fanning, and separating butter from the serous part of milk.

Claim.—The arrangement of the openings *o* and *v* in the circular part of the fan or beater case, the valve *x*, the gathering valve *h*, the conductor *u;* the whole being arranged and combined as described and represented for the purpose specified.

No. 21,637.—George H. Farrington, of Xenia, Ohio, assignor to D. B. Tiffany, of said Xenia.—*Improved Churn.*—Patent dated September 28, 1858.—A represents the box which serves to hold the cream. B B are the dasher-bearers, which are secured to the shafts *a a*. These shafts pass through the bearers and have their bearings in the sides of the box ; *c c* are the double concavo-convex dashers, which are concave on the one side and convex on the other, the convex sides being secured by the bearers B B.

Claim.—The employment of the double concavo-convex dashers, constructed, arranged, and operated in the manner specified, and for the purpose set forth.

No. 21,871.—James H. Bump, of Morris, New York.—*Improvement in Churns.*—Patent dated October 26, 1858 —A is the case or body of the churn, with a lid B, on which a chamber C is formed, which chamber is provided with a lid D. At the centre of the chamber C, and in the lid B of the case A, a vertical tube E is fitted or placed centrally, said tube forming a direct communication between the interior of the case A and chamber C.

Claim.—The arrangement and combination with the churn of a chamber C, through which the air that mingles with the cream is made to circulate substantially as and for the purpose shown and described.

No. 23,093.—Charles W. Stafford, of Burlington, Iowa.—*Improved Churn.*—Patent dated November 16, 1858.—This churn is operated by means of a segmental rack S working into the pinion N, and to which a reciprocating motion is given around the pivot M by means of lever G. The agitation of the cream is effected by means of the parallel arms 1, 2, 3, 4, and the floats X X X, the latter being set obliquely to the direction of the former, and all standing fixed perpendicularly to the shaft C. Attached to slides, which stand vertically along the ends of the arms 1, 2, 3, 4, is a zone of tin or sheet metal Z Z, having radial projections 10, 10, on its interior surface. This zone is intended to be raised or lowered along the slide, so as to accommodate itself to the quantity of cream in the churn, the upper edge being intended to rise to the surface of the cream, or a little higher, so that the radial projections may gather the butter as it is formed.

The inventor says : I am aware that many of the contrivances described have in some shape been substantially used for a like purpose before. I do not, therefore, claim them separately, except as stated.

But I *claim* the general arrangement and adaptation of parts,

substantially as set forth, by which a cheap, light, convenient, and effective churn is produced.

No. 22,090.—Harry Robie and Royal V. Robie, of Eaton, New York.—*Improved Churn.*—Patent dated November 16, 1858.—B is the beater, being perforated with the diamond hole, each alternate beater having a like perforation. C represents one of the remaining beaters, having a concave extremity.

The inventors say: We are well aware that the beaters placed spirally around a horizontal shaft is an old and well-known device. We do not claim, therefore, any of the parts separately or in the abstract, irrespective of the arrangement as shown and described.

But we *claim* the perforated beater B, in combination with the alternate beater C, presenting a concave extremity in connexion with the passage formed by the narrow base of the beaters, the several parts being constructed and arranged upon the shaft A, with respect to each other, in the manner and for the purposes set forth.

No. 20,545.—Addison G. Brush, of Great Bend, Pa.—*Improvement in Operating Churns.*—Patent dated June 15, 1858.—The end of the arm A at E is moved by the projecting arm *c* of the tread-wheel until it slips over the arm *c*, when the lower end of the arm A is immediately caught by another projecting arm *c* of the tread-wheel on the opposite side of it, and moved in an opposite direction to the first arm A; and when that arm also escapes, the arm first moved is again caught and moved as before. Transversely through the shaft B is inserted the arms F F horizontally, and which move with the shaft B. To the arm F at H is attached the rod G, and to the lower end of this rod is fixed the dasher.

Claim.—The arrangement of the revolving platform D, having short arms or tappets *c c c* attached and operating the churn dasher, in connexion with arms A A and F and shaft B, the whole constructed as specified.

No. 22,022.—Joseph Forsyth, of Wheeling, Virginia.—*Improvement in Operating Churns.*—Patent dated November 9, 1858.—The nature of this invention consists in combining the carriage D with the movable pulley-head H H in such a manner that the said carriage will move with the head when it is required to stop or start, the motion of the churn thereby keeping the shafts of the pulleys and churn in line. It also consists in the movable platform K, which can be raised or lowered in order to bring the shafts of different sized churns in line with the pulley shaft.

Claim.—The combination of the carriage D with the movable platform K, substantially as described, and for the purpose set forth.

No. 21,221.—Moses Swan, of Potter Hill, New York.—*Improvement in Operating Churns, &c.*—Patent dated August 17, 1858.—The nature of this invention consists in the arrangement of mechanism for combining the churn tub with the wash tub, and giving the plunger and dasher

of the same an up and down movement, and at the same time imparting a rotary motion to both tubs.

Claim.—The arrangement of mechanism specified, for combining the churn tub with the wash tub, and giving the plunger and dasher of the same an up and down movement, and at the same time imparting a rotary motion to both tubs, substantially as and for the purposes set forth.

No. 20,891.—William Newell, of Philadelphia, Pennsylvania.—*Improved Apparatus for Cleaning and Polishing Coffee.*—Patent dated July 13, 1858.—The nature of this invention consists in augmenting and more evenly distributing the heat through the coffee in the cylinder B, and increasing the friction and motion by the use of woven wire or open wire work partitions *g*, flanges and spaces *h*.

The inventor says: I *claim*, in combination with the cylinder which contains and furnishes heat to the coffee, the open wire diaphragms or partitions for furnishing rubbing surface, substantially as described.

I also claim, in combination with the open wire rubbing surfaces, the flanges and heating tubes, as set forth.

No. 19,142.—J. D. Heaton and William A. Clark, of Dixon, Illinois.—*Corn-Husker.*—Patent dated January 19, 1858.—In using this invention, the person to husk stands on the side of the machine at W, and, taking hold of the valve handle A^2, raises it, and having the unhusked corn convenient, an ear at a time is picked up, and having the butt end towards the knife, the encased ear is placed across the bolsters D R, the butt end of the ear resting in a line as near as possible against the cutting-blade J J. This done, the hammer H H H^2 is let fall, when the stub or butt is severed from the ear; and at the same time the husk is split lengthwise on the under side of the lateral movement back and forth by the slitting blade or lance knife K. The instant the stub is severed and the husk split, the concussion striker N, by its weight, knocks the ear of corn from the husk below, through the split, whence the ear, being released, falls down through the opening Q, whilst the husk is kicked off entirely from the frame forward by the prongs R^2, they being actuated by the rod L.

Claim.—The hammers H and N, the bolsters R D, in combination with knives J J and E K, and double prong fork P^2, when the whole is constructed and arranged for joint operation, in the manner and for the purposes set forth.

No. 19,325.—Abbott R. Davis, of East Cambridge, Massachusetts, assignor to Himself and B. D. Moody, of said East Cambridge.—*Improvement in Corn-Huskers.*—Patent dated February 9, 1858.—This invention consists in the use of a conical cylinder, having its axis in a horizontal plane, by which the inclined surface of the cone gives the required feed to the ear; and in the employment of short stripping teeth in conjunction with a stationary guard, by which the ear is placed immediately in contact with the cylinder, when it is stripped without injuring the grain.

Claim.—In combination with the stationary guards H and F, cone C, and knife E, the elastic or spring rests *e*, operating substantially as described.

No. 19, 326.—Daniel Lombard, of Boston, Mass., assignor to Himself and George F. Richardson, of said Boston.—*Improvement in Corn-Huskers.*—Patent dated February 9, 1858.—The nature of this invention will be understood by referring to the claim and engravings.

The inventor says; I *claim* a corn-husker, constructed of a chuck mounted on a tubular shaft or provided with a central cavity, and having cutters and spurs arranged with respect to the bore or cavity substantially as specified.

No. 19, 320.—F. M. Walker, of Greensboro, N. C.—*Improvement in Corn-Huskers.*—Patent dated February 9, 1858.—The ear of corn is thrust into the opening *d*, and the butt cut off by the knives M M, and then forced into the end of the cylindrical knife O, where it is held firm by the spring knives R, while the knife O cuts and loosens the husk; it is then thrown up between the guide bars L L and rests on top of the cone H, while the husking teeth I I strip off the husks, and by means of the vibrating springs J J the husk is thrown off under the cone, while the ear, cleaned of the husk, passes off at the lower end of the guide box.

Claim.—I claim the cone H, armed with the spring teeth J I, in combination with the guide bars LL, and upright piece F; the whole being constructed, operated, and arranged in the manner and for the purpose set forth.

No. 19, 458.—L. F. Ward, of Marathon, N. Y.—*Improvement in Corn-Huskers.*—Patent dated February 23, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I *claim* the belt *k*, armed with teeth L L, in combination with the stationary prongs N N, which catch and hold the husks and yield to let the ears of corn pass or be carried forward by the belt and teeth, so as to separate the corn from the husks.

And in combination with the belt *k*, armed as above described, I claim the wires M M, to clear the husks from the underside of the ears of corn.

I claim the wires or prongs Q Q, or their equivalents, to clear the husks from the teeth L L on the belt *k*, substantially as described.

I claim the arches G G, constructed and arranged substantially as described, in combination with the rotating knives for severing the butt-stalk from the ears of corn.

No. 19, 512.—Warner Pickett and Andrew Hills, of Naugatuck, Conn.—*Improvement in Corn-Huskers.*—Patent dated March 2, 1858.—This improvement consists in the use of a husking cylinder set with rings, or sections of card teeth or points, and an adjustable curved bar or trough, for the ears of corn to slide in, so that they will fall against the card teeth on the cylinder; and a series of clearers to remove all the husks from the card teeth as the cylinder revolves; and a circular saw to cut off the stumps or shanks of the ears.

The inventors say: We are aware that the cylinder has long beer used, and that the circular saw and the inclined plane, and variou

forms of curves are well known in mechanics, and that each have been set at various angles. We therefore do not claim either of them, or their angles as such, as our invention.

But we *claim* the combination of the inclined cylinder B with the curved bar or trough C and the clearer D, when the whole is constructed, arranged, and made to produce the result substantially in the manner and by the means set forth.

No. 19, 552.—Joseph Fagan and James L. Fagan, of San Antonio river, Texas.—*Improvement in Corn-Huskers.*—Patent dated March 9, 1858.—This invention consists in the employment of a rotating wheel C, provided with cutters *f*, and spurs or projections *a*, in connexion with two concaves, a stationary F, and a vibrating one F^2, the stationary concave having slitting hooks; they being arranged so as to make a husker.

Claim.—The rotating wheel C, provided with spurs or projections *a*, and with cutters *f*, actuated by the cams F^1, or their equivalents, in combination with the stationary and movable concaves E F^2; the whole being arranged to operate substantially as and for the purpose set forth.

No. 20,163.—Charles N. Lewis, of Seneca Falls, N. Y.—*Improved Corn-Husker.*—Patent dated May 4, 1858.—In the engravings B is a cast-iron box, firmly attached to the base; A C is the blade, which is a vertical lancet-shaped piece of steel riveted to the box B; D is a yielding gauge which receives the stem of the ear; and H is the hand lever, having in its head a movable arm I, which is actuated by striking the projection *a* on the standard G.

Claim.—The combination and arrangement of the lever H, tilting arm I, blade C, and yielding gauge D, operating conjointly substantially in the manner and for the purpose described.

No. 20,223.—Daniel C. Smith, of Tecumseh, Mich.—*Improvement in Corn-Huskers.*—Patent dated May 11, 1858.—Figure 1 is a perspective view of this machine, A is the forceps, B knife, C fork, E spring, F thumb-screw, G lever, D plate, H friction roller, I pivot, J wedge, K bolts, L post, M slot, *w* ring, and N strap. Figure 2 represents the machine open, preparatory to the act of husking an ear of corn from the stalk, and attached to the belt O at P; the belt is buckled around the waist of the person using it, and also attached to strap N by means of ring *w*.

The inventor says: I do not claim the forceps separately.

But I *claim* the combination of the forceps A with the wedge J, roller H, lever G, post L, with its slot *m*, the knife B, and plate D, when these several parts are arranged as and for the purposes set forth.

I also claim, in combination with the forceps A, the spring E, fork C, and thumb-screw F, when arranged and operated as and for the purposes specified.

No. 20,253.—Joseph Cawthra, of Rochester, N. Y.—*Improvement in Corn-Huskers.*—Patent dated May 18, 1858.—A piece L provided

with teeth above the husker and at the end of the rods of the grate Y, which prevents the ear being carried off the grate by the husker *k*, and also clears it of any refuse matter which adheres to it. The follower O assists in carrying the ears down the grate.

Claim.—The inclined reciprocating husker *k*, constructed as described, in combination with stationary teeth L, the inclined curved grate Y, and the slide O, when these several parts are constructed, arranged, and operated substantially as and for the purpose set forth.

No. 20,360.—B. B. Meacham, of Ridleyville, Fla.—*Improved Corn-Husker.*—Patent dated May 25, 1858.—In this invention a cutting device is attached to a wheel which is placed below a trough or spout, the cutting device and wheel being so constructed that, as the ears of corn are fed down to it, the butts will be cut off from the ears at their junction with them, and the husks stripped off, and the husked ear discharged by another spout.

Claim.—The wheel E, grooved circumferentially, and provided with the knife or cutter *g*, forked plate *h*, and oblique partition or ledge *c*, and arranged relatively with the spouts C G so as to operate as and for the purpose set forth.

No. 20,568.—Lucius Leavenworth, of Trumansburg, N. Y.—*Improvement in Corn-Huskers.*—Patent dated June 15, 1858.—In fig. 1, *a a* represents the chain, *b b* the arms, *c c* the rollers on the pins; *d* is the lever fastened by the hinge *f* to the frame *e*. The corn is placed beneath the rollers, (the stalk being above the operator's hand,) and the lever is forced foward, by which motion the cutter is made to separate the cob from the stalk. The motion of the lever foward being continued, the chisel draws the husks foward and outward.

The inventor says: I *claim* attaching to the arm or other part of the chair the two rollers, or their equivalents, in the relative position and for the purpose described.

I also claim the combination of the hinged lever *d*, curved chisel *g*, and rollers *c c*, with a seat or chair, in the manner and for the purpose described.

No. 20,637.—Burton Hazen, of Cincinnati, Ohio.—*Improvement in Corn-Huskers.*—Patent dated June 22, 1858.—This invention consists in the employment of a stationary and rotating knife I G, and rotating hammer H, arranged for the purpose of stripping the husks from the ears. The invention also consists in the employment of a rotating cylinder of slitting knives, fitted within a cylindrical yielding shell, also provided with slitting knives, and arranged and operated so as to slit the husks for upholstery purposes.

Claim.—The stationary and rotating knives I G, and rotating bar or hammer H, combined and arranged to operate as and for the purpose set forth.

No. 20,653.—Lemuel R. Mears, of South Abington, Mass.—*Improved Corn-Husker.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* an improved corn-husker, as made of a combination of a breast shield, a supporting bar, and cutting apparatus; the breast shield to be applied to a person, and the cutting apparatus and supporting bar to be operated in manner as specified.

And I particularly claim the arrangement of the cutters and bearer, viz: so as to extend in opposite directions from the supporting bar and the slider, in manner and for the purpose as explained.

No 20,849.—Lenard A. Grover, of Roxbury, Mass., assignor to Himself and N. T. Spear, of Boston, Mass.—*Improvement in Corn-Huskers.*—Patent dated July 6, 1858.—This invention consists in the employment of shears or a cutting device, tilting bed or hopper E, and a rotating cone B, and guide plates D D; the whole forming a very simple and efficient husker.

The inventor says: I do not claim a revolving toothed cone B and toothed plate D, separately; for they, or their equivalents, have been previously used.

I *claim* the rotating toothed cone B, plates or boards D D, one being provided with teeth b^1, in combination with the tilting bed or hopper E, and the vibrating knife G, and stationary knife J; the whole being arranged to operate as and for the purposes set forth.

No. 21,363.—Charles J. C. Petersen, of Davenport, Iowa.—*Improvement in Corn-Huskers.*—Patent dated August 31, 1858.—A description of this invention is too long for a place in this volume; the reader will obtain an idea of it by examining the claim and engravings.

The inventor says: I *claim*, 1st. The feeder, when constructed, arranged and operating substantially as described for the purpose set forth.

2d. The butter, when constructed, arranged, and operating substantially as described for the purpose set forth.

3d. The husker, when constructed, arranged and operating substantially as described for the purpose set forth.

4th. The fanner, when constructed, arranged and operating substantially as described for the purpose set forth.

5th. The receiver, in combination with the fanner, husker, butter, and feeder, when these several parts are arranged to operate conjointly as and for the purpose specified.

No. 21,522 —N. T. Spear, of Boston, Mass.—*Improvement in Corn-Huskers.*—Patent dated September 14, 1858.—This invention consists in the use of a rotating bevelled-face wheel, armed with teeth, and used in connexion with conical taper rollers, one or more having their journals fitted in yielding bearings, and arranged in such relation with the wheel that the ears of corn are allowed to descend by their own gravity down the "bite" or angle formed by the contact of the wheel and rollers, and the husks stripped therefrom.

Claim.—The combination and arrangement of the toothed bevelled wheel B, provided with one or more faces, with the smooth conical rollers D D, one or more, and boards E, when these several parts are

united together and arranged for joint operation, substantially in the manner and for the purpose set forth.

No. 22,440.—S. W. May, of Galesburg, Ill.—*Improvement in Machine for Picking Corn.*—Patent dated December 28, 1858.—A is the main frame mounted on wheels G G, and so constructed as not to break down the cornstalks; B B are thills fastened firmly to the upper cross beam U of frame A by braces C C, and also to A by beam D, and in a central position, so that the horse may walk between the two rows picked; E E are elevators to straighten up leaning or falling stalks; L L are strong bars, each having a channel X opening to receive the stalks at the front end of the bar, and extending back nearly the whole length of it.

Claim.—The bars L, the elevators E, the fingered belt R, the frame A, the crank with its pitman O, or their mechanical equivalents; the whole being combined, arranged, and operated substantially as and for the purposes set forth.

No. 19,160.—Jeremiah P. Smith, of Hummelstown, Pa.—*Improved Corn-Sheller.*—Patent dated January 19, 1858.—In using this machine, the ears of corn, in passing beneath the cylinder C, are first acted upon by the forward or projecting portions of the ribs E E, which shell or start off the grain at intervals, and thus render the remaining grain more easily to be removed by the teeth *a a* or ridges *b b* of the concave I and of the rear portion of the ribs acting together. Both the ribs and the concave yielding separately, they respectively adapt themselves to different sizes of ears without disturbing the action of each other.

Claim.—The ribs E E, arranged and operating in combination with the concave I substantially in the manner and for the purpose specified.

No. 19,253.—Joseph R. Lindner, of Cincinnati, Ohio.—*Improved Corn-Sheller.*—Patent dated February 2, 1858.—A is a drum, having the form of a conic frustum, and rotating upon a vertical shaft B; *a* are teeth; C is a cast iron concave with teeth *c*. The drum being rotated, an ear of corn dropped point downwards through the hopper D into the passage I is at once turned briskly round, drawn downward, and shelled by the teeth *a*; the teeth *c* in the concave serve to hold the ear to enable the teeth *a* to completely remove the grain, while the elasticity of the case G causes ears of any size to be held against the drum A and concave C with a yielding pressure.

Claim.—The elastic case G *g*, constructed as set forth in the described combination with the concave C *c* and drum A *a*.

No. 19,603.—Daniel G. Greene, of North Bridgewater, Mass., assignor to Himself and George H. Greene, of said North Bridgewater.—*Improvement in Corn-Shelling Machine.*—Patent dated March 9, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I am aware that a double tapering cylinder for

shelling corn was patented by James Ross, April 12, 1833, and therefore I make no claim to said device.

But I *claim* the arrangement of the single tapering roll *b*, concave shells *d* d^1, slots *f* f^1, spring *g h*, and spout *i*, as shown and described, whereby the ear of corn is always kept in horizontal position, and the cob is prevented from being forced diagonally under the roll, and is thus saved from being crushed or broken, together with other advantages, all as set forth.

No. 19,809.—Peter Bergen, of New York, N. Y., assignor to Jane Ann Bergen, of said New York.—*Improvement in Corn-Shellers.*—Patent dated March 30, 1858.—This invention is an improvement in that kind of corn-shellers wherein the corn is to be taken off the cob by having the ear passed between the face of a cylinder *b* armed with teeth or projections *c*, and a cradle or concave *d* similarly armed; and it consists in so constructing the feeding-hopper and the cradle, and so connecting them with the shelling-cylinder, that but one ear of corn will be receiving the action of the shelling parts at the same time.

Claim.—The combination of the delivery flap or bottom *h* of the hopper, the piece P, the pins *m* on the shelling-cylinder, the cradle *d*, and the springs *e* and *f*, when these several parts are constructed and relatively arranged as described, to operate in the manner and for the purposes set forth.

No. 19,862.—Thomas W. McFarlan, of Salem, Ohio, and Lewis H. Davis, of West Chester, Pa.—*Improvement in Corn-Shellers.*—Patent dated April 6, 1858.—In operating this machine the ears of corn are fed through the chutes of the head E, and guided to the picker-wheels B C C by the elastic linings. Being shelled, the grain and cobs fall upon the riddle G, the cobs being prevented from falling behind the head by the guard I At this place they are separated, the former falling through the bars of the riddle, and the latter continuing to move over the riddle and escaping under the flexible partition R. As the grain passes from the riddle it falls upon the inclined board F and descends into the transverse spout J, being separated from the chaff by the blast of the fan L.

The inventor says: I *claim* the gutter-shaped guard I, arranged between and underneath the bevel picker-wheels, and overlapping the head of the vibrating riddle, substantially as and for the purposes set forth.

Second. Having the head end of the riddle rest upon a horizontal projection of an inclined board, substantially as and for the purpose set forth.

Third. Lining the spouts or chutes of the head E with a thin pivoted or yielding metal lining, in the manner and for the purpose set forth.

No. 19,915.—Augustus B. Davis, of Philadelphia, Pa.—*Improvement in Corn-Shellers.*—Patent dated April 13, 1858.—This invention consists in combining an endless band or chain of toothed plates with

an angular barred grating, for the purpose of stripping the kernels from ears of corn in a rapid and effectual manner.

Claim.—The endless band or endless chain of toothed plates G, in combination with the angular grating N, when the same are arranged for joint operation substantially as and for the purpose set forth.

No. 20,003.—Elmon Parker, of Baltimore, Md.—*Improvement in Corn-Shellers.*—Patent dated April 20, 1858.—Upon the board at the end of the machine, which serves as a hopper, are put two spring plates *d d*, extending from near the centre of the wheels, about two-thirds the distance to the outer edge, to press the ears to the wheels while shelling. In order to discharge the cob, two rollers *e e* are placed near the outer edge of one wheel and the other in the same position to the other wheel. Under the wheels are fixed two apron boards to guide the corn down near the middle of the machine over a box. The ears of corn are fed to the machine near the centre of the wheels, and will be drawn down either side and discharged from the machine.

Claim.—The combination of the cylinder A, the spring back *d*, and rollers *e*, when they are constructed and arranged with respect to each other as set forth for the purpose specified.

No. 20,266.—Ray Green, of Cussewago, Pa.—*Improvement in Corn-Shellers.*—Patent dated May 18, 1858.—The corn to be shelled is dropped into the hopper L, and rolls down between the strips 1 2 3 4 5, and by them is carried down and around the cylinder B, and is pressed up against the cylinder by the fingers I I I I with sufficient force to shell the corn; while the spring R accommodates the concave to the size of the ears of corn, pressing the point and butt of the ear up equally. The corn, when shelled, passes between the peices of wood T and out through the spout N.

Claim.—The shelling cylinder B, constructed as described, revolving within the feeding cylinder in combination with the feed-regulating slide J, concave T T, and springs R, fingers I, discharging apron H, and spout N, when the several parts are constructed, relatively arranged, and operated in the manner and for the purposes set forth.

No. 20,650.—William H. Main, of Liverpool, Ohio.—*Improvement in Corn-Shellers.*—Patent dated June 22, 1858.—The nature of this invention relates to the use of the balance wheel G upon the revolving sheller, to the form and arrangement of the shellers, and the manner of attaching them to the arms H of the balance wheel ; and also the devices for delivering the cob from the machine by means of spiral cam V.

The inventor says : I *claim* the use of the balance wheel G, in combination with the open hub jaws P, teeth R, and springs O, when arranged in the manner substantially as set forth.

I also claim a series of spur wheels T, arranged with spiral springs and sliders or their equivalents, as described, and in combination therewith the spiral cam V, by which the spur wheels are driven, when constructed and operated in the manner and for the purpose specified.

No. 20,831.—Paschal P. Taft, of Taftsville, Vermont.—*Improvement in Corn-Shellers.*—Patent dated July 6, 1858.—This invention consists in the employment of a rotating toothed or corrugated cylinder C, in connexion with the reciprocating toothed plates L L arranged to move in opposite directions, whereby corn may be more effectually shelled from the ear than by any of the machines hitherto constructed for the purpose.

The inventor says: I am aware that a toothed rotating cylinder and concave is an old and well-known device, and has been used for shelling corn, and for various crushing and grinding purposes; I therefore do not claim broadly such device.

But I *claim* the rotating toothed cylinder C, in combination with two or more reciprocating toothed concaves L L, moving simultaneously in opposite directions; the parts being arranged within a suitable box, case, or framing, and operated substantially as and for the purpose set forth.

No. 21,174.—Calvin Adams, of Pittsburg, Pa.—*Improvement in Corn-Shellers.*—Patent dated August 17, 1858.—Q Q represent the shelling wheels of the corn sheller; they are formed with a number of arms *d*, each of which is of a concave or a V-shape, which strip the grains from the ear as it is fed along. d^1 represents cogs, which, at the same time, constitute the elongation of the arms *d*, with this difference only, that they extend a shorter distance from the centre of the shaft than the arms *d*. By these means the wheel Q is in gear with the wheel H, which latter is in gear with the wheel H^1, which, in turn, gives motion to the shaft Q. The shafts C C^1, together with their corresponding parts, are duplicates; and the wheels Q^1 and H^1 are similar to those of Q and H. W represents a stationary guide, secured to the bolt B; the object of this guide is to direct the ears of corn to the centre of the machine, and from the upper to the lower shellers, when they are fed in and carried past the arms *d* of the shelling wheel Q, which is the upper of the two sets.

The inventor says: I *claim* the combination of the pairs of adjustable and yielding wheels C and C^1 with the pairs of shelling wheels Q and Q^1, when constructed and operating substantially in the manner and for the purpose described.

I also claim the manner of connecting the shafts C and C^1 with their respective cog-wheels H^1 H, by means of the pivots *a a* and conical hub E, or their equivalents; so that whilst they may revolve together, the shafts may play back and forth to adapt the feeding wheels to the various sizes of the ears of corn to be shelled, substantially as described.

No. 21,594.—A. Adams, of Sandwich, Illinois.—*Improvement in Corn-Shellers.*—Patent dated September 28, 1858.—The nature of this invention consists in the employment of a swinging spring-plate, which is concave on its inner face, elliptical on its lower and front edge, and concave on its upper edge, in combination with an inclined guard, which is curved or convex on its under surface, when said plate and guard are arranged in the specified relation to each other,

and to the picker-wheel and its shaft, and to the cob discharge passages of a corn-sheller.

Claim.—The combination of the yielding plate H and the guide bar or plate J, with the wheels C and E and spout G, provided with the elastic plate F, when these several parts are constructed and arranged for joint operation, and relatively with respect to each other and the discharge passages, in the manner and for the purposes set forth.

No. 21,288.—Loren J. Wicks, of Racine, Wisconsin.—*Improvement in Corn-Shelling Machines.*—Patent dated August 24, 1858.—In using this machine the larger portion of the corn, as it is shelled from the ear, falls directly upon the apron P, and, passing over the screen Q to clear it from chaff, is delivered at the end of the apron at the outside of the machine into a proper receptacle, or upon the floor. Such portion of the corn as may be carried into the tube N is prevented from being thrown out through the tube with the cob by the flap-valves O O^1, the first of which deflects it to the bottom of the tube, and the last forces it to fall through the grating T on the apron P, to be delivered with the corn before named. The cob is carried into the tube N by the action of the spiral teeth upon the cylinders D D^1, and falls by its own weight through the tube, past O O^1, to the outside of the machine.

Claim.—The employment of the screen Q in the apron P, in connexion with the tube N, provided with valves O and O^1 and grating T, when these several parts are constructed and arranged with respect to each other, and to the shelling wheel F and cylinders D and D^1, and operate conjointly therewith, in the manner and for the purpose specified.

No. 22,206.—George W. Tolhurst, of Liverpool, Ohio.—*Improvement in Corn-Shelling Machines.*—Patent dated November 30, 1858.—The nature of this invention consists in providing the levers or jaws of a corn-sheller with spur wheels set at an angle around the opening where the ear of corn is presented, so that by rolling said spur wheels around the cob the ear is fed to the shellers and press rollers.

Claim.—The combination of the spur wheels D^2 D^2 D^2 D^2; these several parts being constructed, arranged, operated, and operating in the manner and for the purpose specified.

No. 21,254.—Francis M. Green, of Sullivan, Illinois.—*Improvement in Machines for Cutting up Cornstalks in the field.*—Patent dated August 24, 1858.—The nature of this invention consists in a new machine for simultaneously felling and cutting up cornstalks.

Claim.—The knife cylinder D, constructed and operating as described, in combination with the supporting wheels *g g* and the mechanism for operating the same, the whole arranged substantially as described for the purposes set forth.

No. 19,561.—Henry Hersh and Amos Hersh, of Lancaster county, Pa.—*Improvement in Machine for cutting and crushing Corn-Stalks.*—Patent dated March 9, 1858.—The nature of this invention will be understood by reference to the engravings and claim.

The inventors say: We *claim*, first, the peculiar shape of the knives I located at the top of cylinder, and attached to the arms of the shaft for the purpose of cutting off the ends of corn stalks by a circular sweep and an angular downward cut at the same operation, as described.

Second, We claim the combination of the knives as curved to correspond with the cylinder at the top, and its spiral set teeth G at the sides for the purpose of cutting and crushing the corn stalk at one operation most effectually and in the simplest manner, as described.

No. 19,311.—Elias Peck, of Canton, Illinois.—*Improvement in Machines for Cutting Brush from Cotton Fields.*—Patent dated February 9, 1858.—The letters *a* are the journals, *b* the knives, E the cams, F the bars to cut against, and *g* is the place where the axle of the cutting wheel passes through the inside piece of timber in *fig.* 1. The cams, marked E, should be made of iron, three-eights of an inch in thickness and two inches in width. The under edge should be made sharp where they come near to or bear upon the ground, so as to cut or break the brush upon the ground. They are also to raise the wheels or knives over stones or other obstructions.

Claim.—I claim the arrangement of wheels S, knives *b*, cams E, and bar F, the whole being arranged and operated in the manner and for the purpose set forth.

No. 21,667.—C. A. Gaines, of Watson, Mississippi.—*Improvement in Cotton Scrapers.*—Patent dated October 5, 1858.—This invention consists in the peculiar shape and arrangement of the bottom E of the block. The side and rear edges *c d* and *f* only are in a plane composing the surface which rests on the ground. From these edges, inward and forward, to the edge *g* next to the mould-board, the bottom is made hollow or concave, the depth of said cavity increasing as it approaches the front edge *g*, and the greatest depth being in the middle thereof.

Claim.—Giving a hollow or concave form to the bottom E of the block, from the rear and side edges inward and forward to the mould-board or scraper D, substantially in the manner and for the purpose specified.

No. 19,151.—David Perham, of Tyngsborough, Massachusetts.—*Improvement in Cranberry Separators.*—Patent dated January 19, 1858.—The nature and object of this invention will be understood by an examination of the claim and engravings.

The inventor says: I *claim* the inclined plane J and bounder L and L^2, constructed and relatively arranged and operated as described, for bounding cranberries, to separate the good from the bad, essentially as fully set forth.

I also claim the relative arrangement of the hopper B, with its adjustable gate H and rack C, in such manner as to properly deliver the cranberries to the apron D, and allow dirt and foreign matter to fall from them through this rack during their delivery, essentially in the manner and for the purposes fully set forth.

I also claim the arrangement of the guides I and P^5, constructed

with and forming part of the feed apron D, as described, so that the cranberries will not be allowed to fall on each other when delivered to the bounder, essentially in the manner and for the purposes fully set forth.

I also claim the movable and adjustable flexible strick G, so placed above and relatively arranged with the apron D as to govern the quantity of cranberries on the apron itself which may be passing over or upon it, especially in the manner and for the purposes fully set forth.

I also claim the cushion T, relatively arranged with the bounder L and L^2, as to receive momentarily, and prevent bruising the imperfect cranberries, essentially in the manner and for the purposes fully set forth.

I also claim the flap F^2, so arranged with the bounder L and L^2 as as to receive the force of the good or perfect cranberries, and prevent bruising them as they are separated by and bounded from the bounder, essentially in the manner and for the purposes fully set forth.

I also claim the double adjustable divider Y and Z, so arranged relatively with the bounder V and M^2 as to subdivide the poorer quality of cranberries, essentially in the manner and for the purposes fully set forth.

No. 19,248.—James Houck, of Clinton, Indiana.—*Improvement in Cultivators.*—Patent dated February 2, 1858.—The nature of this invention will be understood from the claim and illustrations.

The inventor says: I do not claim the use of shovels or the mould-board, as they have been long used.

But I *claim* the arrangement of the triangular mould-board C and its adjustable standard B^4, with relation to beam A, standards B B^2 B^3, handles H H, and shovel S S, in the manner and for the purpose set forth.

No. 19,584.—D. P. Rogers, Seymour Rogers, and Luman Rogers, of Pittsburg, Pa.—*Improvement in Cultivators.*—Patent dated March 9, 1858.—The gauge-irons *j j*, which are for the purpose of expanding and contracting the cultivator, are made in the usual way, with the exception that one end of each is flattened and widened out; the widened part is turned down to form a groove X, so that in bringing them together the groove of one "iron" will receive the body of the other. The clamp-spring is for the purpose of clamping the gauge-irons; the lower end of one of the braces *h* is bent so as to stand perpendicular, and then a portion of this part is bent so as to form a figure similar to the letter U; a bolt is inserted in the upper part of this figure so as to draw them together.

Claim.—The combination of teeth, braces, standards, spring-clamp and gauge-irons with the frame of a cultivator, the whole being constructed and arranged in the manner and for the purposes set forth.

No. 19,742.—Joseph Banks, of Dadeville, Ala.—*Improvement in Cultivators.*—Patent dated March 30, 1858.—A set of mortises *p p p* is made vertically through the beams A B B, at regular distances, for

the reception of bolts *c c c*, which secure the teeth F G H and their braces S S to the under sides of the beams. Teeth F G are employed both to work the earth and receive the several scrapers I L L. They are attached to and arranged so as to be shifted to different positions beneath the under sides of the side beams B B, and each has a rear brace S bolted to the beam at the top, while the lower end thereof is pointed, and enters a shallow hole or notch *d* in the back of the tooth.

Claim.—The construction, arrangement, and combination of the body of the implement and its movable teeth, as described, whereby it is readily adapted to properly receive in turn the several scrapers employed for performing the various modes of cultivation specified.

No. 20,207.—L. W. Kelley, of Brunswick, Ohio.—*Improvement in Cultivators.*—Patent dated May 11, 1858.—The purpose of this implement is to make it convertible into three different kinds of cultivators. First, a scraping and tooth cultivator combined: the scrapers are adjustable separately from the adjustment of the teeth, or *vice versa*; by extending outward or contracting inward the adjusting bars G G, the side beams and their teeth I I are adjusted outward or inward. Second, a simple scraping cultivator, by withdrawing the two bolts *a d'* by which the side beams B B with their adjuncts are removed, and taking out the tooth H from the central beam. Third, a simple tooth cultivator, by removing the bolt *f* and wedge *h* and pin *i*, (if both are used,) and thereby detaching the scrapers M M and their appendages from the central beam.

Claim.—The combination and arrangement of the teeth beams B B with their attaching and adjusting bars E E and G G and the scrapers M M with their attaching and adjusting bars L and G^1 G^1, with each other, and with the central beam A, substantially in the manner and for the purposes set forth.

No. 20,260.—John Endsley and Elihu Fletcher, of Abington, Ind. —*Improvement in Cultivators.*—Patent dated May 18, 1858.—The shanks D E F are situated respectively to each other, one before another, D being in the lead; they "hill" the earth to the right. G G^1 G^2 are three shovels; they are bolted to shanks D E F. H is a gauge of iron fastened to shank E. I I are two saddles, each with two sets of flanges upon opposite sides. One set embraces the beam A, and the other clasps the upper end of a shank D or F.

The inventors say: We do not claim a bed with inclined sides following the trace of the coulter, rendering the sides of the furrows compact, and preventing the falling in of the earth, as described in Charles K. Farr's patent of May 9, 1854. Neither do we broadly claim the saddle I, as we propose making that the subject of a separate application.

But we *claim* the arrangement of shanks D E F and shovels G G^1 G^2 with saddle I I and beam A, when constructed in the manner and for the purposes shown.

No. 20,712.—William A. Hopkins, of Vicksburgh, Miss.—*Improvement in Cultivators.*—Patent dated June 29, 1858.—The opera-

tion of this transverse plough is that the first plough throws its furrow to the plant, the second throws its furrow to that of the first, and the third to that of the second, and the fourth to that of the third, making a bed of four furrows; this plough doing the work of four single ploughs in proper order.

Claim.—The arrangement of the beam A, transverse beam B, handles C, bolts D, shares E, standards F, and stays G, when the several parts are constructed and united as described, and not otherwise.

No. 20,798.—Duncan C. Hubbard, of Okolona, Miss.—*Improvement in Cultivators.*—Patent dated July 6, 1858.—The nature of this invention consists in adjusting or fitting the share T E S F to the long stock A B C D, after the manner of the common plane-bit to its stock. The slits m n m^1 n^1, through which the bolts a b a^1 b^1 pass, will allow the share to be set any required depth. The small harrow tooth h z will stir up the soil pressed down by the stock.

Claim.—The combination of share T E S F, stock A B C D, and tooth h z, the whole being constructed and arranged substantially as and for the purposes set forth.

No. 21,055.—William Adams, of Detroit, Michigan.—*Improvement in Cultivators.*—Patent dated August 3, 1858.—This machine is intended for garden weeding and cultivation by hand, and should be of a size corresponding to the width of the rows in which the crop is planted. The manner in which the parts of the machine are arranged, enables it to pass centrally over the rows of plants; and a space is left between the two front teeth, wide enough to leave the plants undisturbed. The machine should be wide enough to cut all the weeds to the middle of the space between the rows.

Claim.—The arrangement of the loop G at the juncture of the cross and side bars A and C, in combination with the binding pin, and the double looped yoke extending transversely from one side bar to the other, for holding the handles E, in the manner and for the purposes specified.

No. 21,128.—N. W. Fraser and A. J. McLellan, of Laporte, Ind.—*Improvement in Cultivators.*—Patent dated August 10, 1858.—The nature of this invention consists in the manner of arranging the shield, together with the shovels and the two revolving wheels.

Claim.—The arrangement of the fender D attached to the shovel standards D^1, the shovels E, and thewheels A on the vertical shafts a, the whole being arranged for joint operation as set forth and described.

No. 21,170.—Robert Sawyer, of Wales, Me., assignor to William G. Brown, of Monmouth, Me.—*Improvement in Cultivators.*—Patent dated August 10, 1858.—This machine is calculated to weed and hill at the same time. Should it be desired to weed the ground for a while without hilling it, the turning shares may be removed from the cutters, they being restored to place preparatory to performance of the hilling operation.

The inventor says: I do not claim the common cultivator, as made with one or more series of small double ploughshares applied to adjustable bars or supports connected with a plough.

But I *claim* my mpr oved weeding and hilling plough, constructed substantially as described, viz: with a coulter B, a root cutter D, adjustable cutters G G, and turning shares L L applied to adjustable handles and a plough beam, and made to operate substantially as specified.

No. 21,377.—Nathaniel S. Smith, of Buffalo, N. Y.—*Improvement in Cultivators.*—Patent dated August 31, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the flanged or broad cutting cylinder B, nor placing a gang of hoes behind such a cylinder, nor the combination of the comb-formed clearer with such a cylinder.

What I *claim* is the use of the double joint piece D to connect the gang of hoes to the axle, when said joint piece extends beyond the axle, and subserves also the purpose of a foot lever to throw the hoes out of the ground, in the manner and for the purpose set forth.

No. 21,428.—Israel Long, of Terre Haute, Ind.—*Improvement in Cultivators.*—Patent dated September 7, 1858.—The nature of this invention consists in the employment of two frames, which are furnished with harrow teeth at their forward end, and cultivator teeth at their rear ends, and connected by arch braces, in combination with the propelling wheels, arranged on short crank axles; the tongue arranged on top of the arch braces, and with the adjusting arrangements.

Claim.—The employment of two frames A A, which are furnished with harrow teeth *c* at their forward end, and cultivator teeth B at their rear ends, and connected by arch braces D D, in combination with the propelling wheels E, arranged on short crank axles *c*; the tongue G arranged on top of the arch braces, and with the adjusting arrangements substantially as and for the purposes set forth.

No. 21,625.—Thomas William Poole, of Brunswick, Ohio.—*Improvement in Cultivators.*—Patent dated September 28, 1858.—The nature of this invention consists in constructing the cultivator with adjustable arms or wings, in combination with fixed guards, secured above, and concentric therewith; so that the teeth may be expanded or contracted according to the convenience of the operator, and at the same time superior strength and firmness, as well as lightness of construction, are secured.

Claim.—The combination and arrangement of the hinged arms B B B B, and fixed concentric guards D D D, in the manner specified.

No. 21,690.—B. S. Morgan, of Delhi, Iowa.—*Improvement in Cultivators.*—Patent dated October 5, 1858.—This invention consists in a peculiar arrangement of levers and share stocks, whereby the shares may be raised above obstructions with much ease, and also allowed to yield or give to obstructions, in case they are brought in contact with them, so that the parts cannot be injured thereby.

The inventor says: I *claim* the arrangement of the bars E, with share stocks F attached; the levers I, with links J fitted in the triangular shaped openings *f* in said levers, and attached to the colter bars K, which are connected to the levers N, substantially as and for the purpose set forth.

I claim in combination with the above, the brace rods H attached to the share stocks F, by means of springs *a*, and fitted in the recesses *b* in the stocks, and arranged substantially as and for the purpose set forth.

No. 21,739.—C. H. Carrington and S. E Carrington, of Weymouth, Ohio.—*Improvement in Cultivators.*—Patent dated October 12, 1858.—A is a central oblong frame, tow hich a tongue B is attached. The machine being intended to stride the rows or drills, the central part thereof is entirely, and the cross pieces of the frame curve, or bow upward, as shown at *a a*, thus allowing corn or other vegetable growing at a considerable height to be passed over without injuring or disturbing it. This frame is supported by two wheels D D inside of its side beams, and not very far from each other. They are mounted on separate axles, not crossing the space between each other, so as not to obstruct the central part of the implement. A seat C is mounted above, and upon the frame for the reception of the driver.

The inventors say: We *claim* the arrangement and combination of the side wings E E and bars H H with each other, and in relation to the frame A, substantially in the manner and for the purpose specified.

We also claim the mode of actuating and adjusting the hoes K K, by means of the wheels D D, stirrups *h h*, bar L, lever M, and catch plate N, arranged in combination, and acting upon the handles J J of the hoes, substantially as set forth.

No. 21,787.—William Tucker, of Blackstone, Mass.—*Improvement in Cultivators.*—Patent dated October 12, 1858.—The nature of this invention consists in the combination of a rotary toothed drum, or a rotary series of teeth, with a series of gird bars, and teeth projecting from such bars, the whole being arranged, applied to a frame, and constituting a new or improved cultivator to be used in breaking up the soil preparatory to its being planted.

Claim.—The combination of the rotary toothed drum, of rotary series of teeth *a a*, with a set of stationary gird bars *d d*, and teeth E E projecting therefrom, the whole being arranged, applied to a frame A, and constituting a new or improved cultivator or agricultural implement, to operate substantially in the manner and for the purpose or purposes as specified.

No. 21,763.—Thomas M. Lee, of Broad Ford, Va.—*Improvement in Cultivators.*—Patent dated October 12, 1858.—This invention consists in the manner in which is combined and arranged the adjustable rotating digging wheel with the adjustable digging teeth and cleavers, so that the wheel may be adjusted to the proper depth to be ploughed

or harrowed, and the teeth and cleavers be changed to suit such depth, as will be explained.

Claim.—So combining the cylinder R, stock H, and block *o*, with their respective teeth *a d g*, with each other, and with the main frame A, as that can individually or severally be adjusted for deeper or shallower work, substantially as and for the purpose set forth.

No. 21,857.—Thomas S. Stevens, of Pepperell, Mass.—*Improvement in Cultivators.*—Patent dated October 19, 1858.—Underneath the carriage A is a movable cutter frame F, which carries at its front a series of vertical stripping cutters *a a a*, arranged therein as seen in the engravings. Besides such cutters, the frame F supports a rotary shaft or drum G, carrying on its outer surface a set of spiral or other proper knives *b b*, so arranged as not to cut horizontally underneath the surface of the land, in directions transverse of the machine, when the drum or shaft is put in rotation, but to cut in circular paths concentric with the drum.

Claim.—The inventor says: I am aware that for cutting sods and roots a series of stationary surface cutters, like under surface ploughs, have been used in connexion with a set of vertical scoring knives, and on one frame therewith; consequently, I do not claim such. Each of the knives of the rotary drum is a spiral or helical knife, or so formed as to cut in a curved instead of a horizontal path, and it passes into and out of the soil during each rotation of the drum. Therefore, its action on the soil is different from that of a stationary horizontal knife or ploughshare, which works in a horizontal path only under the surface, and, in connexion with the vertical cutters, separates the soil into ribbands or strips. The rotary cutters of my machine not only perform the functions of the stationary plough cutters, but they break or cut the soil in curved paths, so as to reduce the strips to pieces, and they raise these pieces and turn them over more or less, whereby the roots will also be separated and thrown out of place.

What I *claim* is the combination of a set of vertical stripping cutters *a a*, and a set or series of revolving under-surface cutters *b b*, applied to operate together, substantially as specified.

No. 22,215.—William Willmot, of Wilmington, Delaware.—*Improvement in Cultivators.*—Patent dated November 30, 1858.—In operating this machine as it is drawn along, the shares N are made to penetrate the earth and form furrows of the requisite depth by means of the weights I, which are adjusted on the bars H at a greater or less distance from their outer ends to effect the desired result. The handles B B are grasped by the operator or attendant, and in case the shares are not designed to operate, they are kept in an elevated state by hooking the chains J sufficiently high on the pins *f*. The shares N are placed nearer together or further apart by adjusting the bars G^1 in the frame A. The chain P is so adjusted that it will, by dragging into the last furrow made at the previous "round" or "bout," insure the furrows being made at equal distances apart, and by turning the bar O, so that it will project over or beyond the opposite side of the

machine, the chain is allowed to perform the same office at the succeeding bout.

Claim.—The arrangement and combination of the bars G G^1 G^2, bars H, adjustable weights I, chains J, bars L, and handles B, as and for the purposes shown and described.

No. 22,316.—Thomas Turner, of Marysville, Ohio.—*Improvement in Cultivators.*—Patent dated December 14, 1858.—This invention consists in the employment of two mould-boards placed one in advance of the other and attached to separate beams, connected together so as to be capable of adjustment, the front mould-board being hollowed out so as to allow the earth raised by it to pass over its share into the furrow, and directly in front of the other mould-board, which casts it up, in a pulverized state, towards the crop under cultivation.

Claim.—The combination of the pulverizing mould-board F and hilling mould-board G, constructed as shown, and attached respectively to the longitudinally and laterally adjustable beams A B, the whole being arranged substantially as and for the purpose set forth.

No. 22,437.—Howard Mann, of East Attleborough, Mass.—*Improvement in Cultivators.*—Patent dated December 28, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: 1st. I *claim* the application of each wheel arbor to its wheel and the frame A, substantially as described, viz: So that the wheel may turn on the arbor and the latter extend into slots, and have fastenings, as explained, whereby not only the wheel may be adjustable with reference to the cutters, but the arbor and its screw nuts may be employed to strengthen the frame, in the manner set forth.

2d. I also claim the described arrangement of each of the slots of the wheel arbor with respect to the scraper of the periphery of the wheel, whereby the wheel, at whatever attitude it may be placed while its arbor is in the slots, will be at one uniform or proper scraping distance from the scraper.

3d. I also claim the application or arrangement of the slide bar of the cutter G, so as to operate not only as a scraper to the wheel but as a supporter of the cutter post or rod.

No. 20,823.—Asberry Smith, of Ashville, Ala.—*Improvement in Cotton Cultivators.*—Patent dated July 6, 1858.—A is the upright or support, B the blade or share, C an iron brace, D the beam or main timber of the frame, E the handles, and F the post.

The nature of this invention relates to the peculiar form and construction of the blade, and the position thereof with regard to its upright support.

Claim.—The arrangement of the upright A, brace C, beam D, and support F, so that a plane will pass through or near the whole of them, and when the wing B is connected to and projects from the said upright A, all as set forth.

No. 20,605.—Erastus T. Bussell, of Shelbyville, Ind., assignor to Wombaugh, Brothers & Co., of Cincinnati, Ohio.—*Improvement in Rotary Cultivators.*—Patent dated June 15, 1858.—The nature of this invention consists in providing a hollow revolving drum, out of the surface of which projects any desired number of spiral twisted or otherwise shaped cutters *f f f*, arranged at suitable distances from each other, to each of which a rotary motion is communicated as said hollow drum revolve upon its axis, by means of fixed cogged master wheel within the drum, into which small cog wheels play as they are carried around by the drum.

The inventor says: In making these ploughs for the various purposes for which they will be used, as well as their adaptation to the varied soils in the country, many modifications will be necessary. It will be distinctly understood, therefore, that I do not confine myself to any particular style, so long as I maintain substantially the features set forth.

What I *claim* is the arrangement of machinery substantially as set forth for breaking up and disintegrating the earth for purposes of agriculture.

No. 19,234.—Moses Bucklin, of Grafton, N. H.—*Improvement in Cultivator Teeth.*—Patent dated February 2, 1858.—The nature of the improvement will be understood from the claim and engravings.

The inventor says: I do not claim a seed-delivering tooth such as is described in George W. Brown's patent of August 2, 1853.

Neither do I claim a seed-delivering tooth such as is described in L. W. Calver's patent of May 22, 1855.

But I *claim* a cultivator tooth having two shares, which rise with a curve, so as to form semi-mould-boards, with their front edges terminating in a single perpendicular plane or cutter, and in combination with said plane or cutter, extending forward with a straight cutting edge rising from the points of the shares at an angle of about 32°, and terminating at the top in a flange on each side, connected with the tops of the semi-mould-boards, for the purpose of fastening the tooth to the frame of the cultivator.

No. 21,212.—Adam Pritz, of Dayton, Ohio.—*Improvement in Grain Drills.*—Patent dated August 17, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first. The employment of a distributing slide E, which has two sets of different characters of discharge passages E F, and a connecting rod H, having two adjusting notches *f f*, in combination with a set screw *i*, which has a serrated sliding cap *k*, and with a slotted actuating lever G, which has a serrated rib *m* on its upper side, substantially as and for the purposes set forth.

Second. In combination with the above, the employment of short flanged metal tubes K for securing the flanged gum or leather conducting tubes *d* to the drill frame, substantially as and for the purposes set forth.

No. 21,736.—Samuel Binkley, of Dublin, Indiana.—*Improvement in Grain Drills.*—Patent dated October 12, 1858.—A represents the hopper, having common apertures *a* in its bottom; B is the slide, perforated to correspond with the apertures in the bottom of the hopper; each aperture in the slide is bisected by a thin bar *b*, the bottom of which is on a level with the lower surface of the slide; *c c* are a number of spurs extending upward from the bar *b* to a level with the top of the slide; *d d* are angular protuberances from the slides of the slide apertures; E is the staple which confines the slide to the bottom of the hopper; this staple is provided with grooves *e*, which leave intervals between the slide and staple, immediately beneath the spaces between the protuberances *d* on the former, whereas said protuberances themselves are in close contact with the staple.

Claim.—The slide B, in the described combination, with the grooved or corrugated staple E, for the purposes set forth.

No. 19,633.—Robert Hamilton, of Franklin, Ind.—*Improvement in Seed Drills.*—Patent dated March 16, 1858.—The seed is placed in the chamber C on top of the circular bottom I. The machine being set in motion, the lever D being operated upon by the cam *c* on the axle, in turn operates the bar H, in the seed chamber, and causes it to have a quick, vibrating, lateral motion. The screws or stirrers J operating in the slots in the bottom I, work the seed down through these slots and on each side of the bar H; it thus works under the bar H and out at the apertures in the bottom of the seed box, into the discharge spout, and thence to the ground.

Claim.—The peculiar arrangement of the circular bottom I, as prepared, with the vibrating bar H, pins J, sides F F, lever D, slide E, and cam *c*, all operated and constructed in the manner set forth and for the purpose described.

No. 19,617.—C. B. Brown, of Alton, Illinois.—*Improvement in Seed Drills.*—Patent dated March 16, 1858.—The nature of this invention consists in the employment of vertical, vibrating, serrated blades G, in combination with the slitted, flanged, or serrated drill-teeth F, for the purpose of cutting up and removing any weeds, grass, or stubble that may collect about and hang on the front of the drill-teeth while planting in foul ground.

The inventor says: I *claim*, first, the employment of vertical, vibrating, serrated blades G, in combination with the slitted flange or serrated drill-teeth F, substantially as and for the purposes set forth.

Second. The combination of the seed-distributor O, and clearing-blades G, and propelling axle C, by means of a double-acting rock-shaft I, three connecting rods H J *j*, two elbow levers *c i*, a crank shaft K, and transverse slide P, and two spur wheels L M, substantially as and for the purposes set forth.

No. 19,808.—George S. Ball, of Dayton, Ohio, assignor to Benjamin Kuhns, of said Dayton.—*Improvement in Seed Drills.*—Patent dated March 30, 1858.—A is the slide, B the openings, C the clips on slide A, which are riveted or soldered on the slide. The slide A occupies a place between two other slides with corresponding openings. The clips C pass into the openings of the upper slide and present an uneven surface in the seed hopper of the drill, the lower being the shut-off slide, to stop the flow of seed from the hopper. The quantity of seed to be distributed is regulated by the screw *d* attached to the slide A.

The inventor says: I do not claim the upper or lower slide, such having been used before; but I *claim* the slide A with the attachment of the clips C, in combination with the slides D and E, the whole being arranged and operated in the manner and for the purposes set forth.

No. 19,924.—John Harris, of Shippensburg, Pennsylvania.—*Improvement in Seed Drills.*—Patent dated April 13, 1858 —This invention consists of a spring attachment for drill teeth, and by it provision is made for the drill teeth yielding when they come in contact with stumps and stones, and thus be saved from being broken, and then, after passing the obstruction, of springing forward to its original position.

Claim.—Having the spring bar, which is attached fast to the upper part of the main relief connecting bar B of the drill tooth A by one end, loosely connected at its other end to the upper end of the drill tooth by means of a curved hook on the tooth and a slot in itself, substantially as and for the purposes set forth.

No. 20,377.—John C. Stevens, of Lee, Massachusetts.—*Improvement in Seed Drills.*—Patent dated May 25, 1858.—The claim and engraving explains the nature of this invention.

The inventor says: I do not claim, broadly, the perforated and reciprocating seed slides *h*, for they have been used in various machines. But I *claim* connecting the bars or beams H to the frame of the machine by means of joints I J, arranged as shown, to prevent the front and converging ends of the boxes from coming in contact with each other when raised, and using in connexion with the bars or beams, thus hinged, a distributing mechanism, arranged substantially as shown, so that the distributing device will be thrown out of gear with the wheels G, simultaneously with the elevating of the bars or beams H, and consequently the teeth N.

No. 20,603.—M. C. Younglove, of Cleveland, Ohio.—*Improvement in Seed Drills.*—Patent dated June 15, 1858.—The seed cylinders I are each divided into two sections, I^{1} and I^{11}; the section I^{1} has an inteior opening or space to avoid weight of metal in the machine; the section I^{11} has also an interior space, surrounded by fingers or projections S, with intervening spaces. On account of the sleeve journal *a*, which

is connected with the screw *c* and the axle H, it is impossible for the capacity of the seed cups to be changed by the resistance of the seed or other obstruction passing from the hopper to the seed cups.

Claim.—The connected series of compound pocketed seed cylinders I, in combination with the sliding sleeve journal *a*, and the adjusting screw *c*, the whole being arranged and operated substantially as set forth.

No. 20,946.—J. W. Kirk, of Rising Sun, Maryland.—*Improvement in Seed Drills.*—Patent dated July 20, 1858.—By the peculiar arrangement of duplicate discharge passages in the bottom of the hopper A, and in the distributing slide C, the grain is pushed in different directions. One stream does not interfere with the other, and is not liable to choke. The stream is more steady and constant, and the grain consequently is not so much bunched when deposited into the soil.

Claim.—A seed hopper which has at each point of discharge two passages arranged alongside, and one a little advance of the other, and both used at the same time, in combination with a seed slide which has two passages similarly arranged, and of equal depth with each other, substantially as and for the purposes set forth.

No. 21,316.—O. H. S. Brumfield, of Centreville, Indiana.—*Improvement in Seed Drills.*—Patent dated August 31, 1858.—This invention consists in having a series of hooks or curved teeth attached to a rod, the ends of which are fitted in horizontal guides and connected to pitmans, which are attached to cranks, the parts being arranged so that the surface of the ground in front of the drill teeth will, as the machine is drawn along, have all obstructions removed, and the drill teeth thereby prevented from becoming choked or clogged.

Claim.—The teeth *a*, attached to the rod G, and placed between the drill teeth I, when said rod is operated by the pitman F and cranks E, so that the teeth *a* will have the reciprocating and rising and falling movement communicated to them as and for the purpose set forth.

No. 21,642.—Alexander Turner, of Franklin, Ind., assignor to Himself and Redden Bess & H. Sloane, of same place.—*Improvement in Seed Drills.*—Patent dated September 28, 1858.—In the engravings A A^1 and B B^1 represent four seed bales. These boxes are secured to a V-shaped frame, marked E E; the two parts of this frame are secured together at one end by means of a pin or pivot; cross bars F F are secured to them at the other end; a piece G covers these bars, and they are secured to it by means of bolts *s s*. Bars F F^1 are slotted and bolts S S pass through these slots, and the bars are adjustable by means of them. The pieces of the frame E may thus be expanded at one end so that the machine will cover more ground and at the same time increase the distance between the drill rows.

Claim.—The arrangement of the seed boxes A A and B B, the driving wheel C, secured as described, and the lever *a*, wheels *c* and *d*, rod *e*, and seed slides *f* f^1 and *g g*; the whole being constructed and operated in the manner and for the purpose described.

No. 21,715.—W. Irwin Willitts, of Milton, Ind.—*Improvement in Seed Drills.*—Patent dated October 5, 1858.—The nature of this invention consists in the combination and arrangement of seeding drill plows and corrugated rollers, making the frame to which the receding drill plows are attached adjustable, so that the grain may be buried at any required depth in the ground, by arranging the drill plows to work parallel, either with the ridges or depressions of the corrugated roller.

Claim.—The arrangement and combination of the corrugated roller A, the adjustable frame *z*, *t*, *e*, receding drill plows *t*, the supporting chains *c c*, and the hooks *h h*, all arranged and operating substantially as described for the purposes set forth.

No. 21,018.—Edward O. Bryden, of Lafayette, Ind.—*Improvement in Wheat Drills.*—Patent dated July 27, 1858.—The cutters H, as the machine passes along, cut the stalks and other things in the way of the teeth G, and prevent them from lodging and clogging the machine. Anything that may not be cut will be passed over by the rollers or cutters. The machine is expanded or contracted by operating the lever rod I and lever J, which forces the bars C C by means of pitmans V V.

Claim.—The combination and arrangement of the cutters H H H H, and teeth G G G G, with the concentric halder holders D D D D, and levers E E E E, and the combination and arrangement of the slides Q Q and *u u*, and the levers P P, with the pitmans O O, and cranks *n n*, when constructed and operated as set forth.

No. 19,663.—John Van Doren, of Farm Ridge, Ill., assignor to Himself and B. Murray, of Ottawa, Ill.—*Improvement in Dumping Boxes for Agricultural Purposes.*—Patent dated March 16, 1858.—B D E G and B^1 D^1 E^1 G^1 are two pyramidal boxes, consisting of two sides, a bottom, and an end or part of an end, revolving horizontally on pivots A^1, and vertically on hinges C. N N are blocks, supporting boxes which also revolve on pivots A^1 horizontally. The blocks are supported by platform M, which revolves horizontally upon a spindle through the medium of suitable driving gear.

The inventor says: I wish it to be understood that I do not confine myself to the form thereof, nor to the precise manner of operating the same.

But I *claim* the right of varying their form and operation, in any manner substantially the same within the limits of the nature of the invention.

I claim the combination of the dumping boxes, constructed as described, with the blocks N, and platform M, for the purposes set forth.

No. 22,076.—Albert Goodyear, 2d, of Hamden, Conn.—*Improvement in Automatic Feed Boxes for Animals.*—Patent dated November 16, 1858.—The nature of this invention consists in attaching to, or combining with, a feeding trough or box such an arrangement of mechanical devices as will automatically open the said box by raising

the lid thereof, at such an hour or point of time as may be previously arranged or required.

Claim.—The arrangement of the box B, lid L, spring *l*, and catch *a*, with sliding plate K, dial D, notch *n*, and button E, united together substantially in the manner and for the purpose set forth.

No. 10,457.—Hartwick Von Unwerth, of Salem, Mass.—*Improvement in Garden Tools.*—Patent dated February 23, 1858.—In the engravings A is the weeder, and made of steel, malleable iron, or any suitable material. It is fastened to the handle B by means of screws or rivets 1, 2, 3. The inner edge of the weeder is made sharp, so as to cut all the way round to within a few inches of the handle. C is the trowel, being made in the same piece with the weeder A. B is the handle, ten or twelve inches long, and made of wood; *b* is a continuation of the handle bent or shaped, and forming the dibble.

Claim.—The combination of the weeder, trowel, and dibble, substantially as described and for the objects specified.

No. 21,700.—Sidney S. Rockwell, of Vermontville, Mich.—*Improvement in Machines for Cutting Root Grafts.*—Patent dated October 5, 1858.—To use this machine the operator places it before him, takes his seat, places his foot upon the treadle H; the root or scion to be cut is placed in the groove in the table directly under the blades; then a motion of the foot downward brings down the gate, and the root or scion is cut in the manner required for grafting. Then by removing the foot from the treadle H, the spiral spring *a* brings up the gate to its former position.

Claim.—The arrangement of the shanks L L, and blades *a a*, and movable blades *x x*, in the manner specified and for the purposes set forth.

No. 20,196.—John De Rush, of St. Mary's, Ohio.—*Improvement in Grain Cleaning Machines.*—Patent dated May 11, 1858.—This invention consists in the use of a beater and screen, constructed and arranged relatively with suction spouts A^1 L I M H, and a fan F, whereby a machine exceedingly simple in its construction is obtained, and one that will separate smut, dirt, and all foreign substances from the grain.

Claim.—The scouring plates *e f*, fan F, and suction spouts A^1 L I M H, when combined and arranged relatively with each other, substantially as and for the purpose set forth.

No. 20,425.—Marquis L. Hall, of Bridgeport, Conn.—*Improvement in Grain Cleaning Machines.*—Patent dated June 1, 1858.—H H represents the arrangement for scouering the grain. It is composed of flat steel strips or blades passing through an opening or slot I, in the spindle F, at a suitable distance apart, and are so kept by placing plates of metal between them. They are all secured by placing a key or wedge over the top of them in the slot.

Claim.—The arrangement of a series of flat steel springs or blades, placed horizontally and parallel with each other, and secured by a

wedge or key in a slot or opening in the spindle, constructed and operating in the manner and for the purpose described.

No. 20,899.—N. H. Sherburne, of Campton, Ill.—*Improvement in Grain Cleaning Machines.*—Patent dated July 13, 1858.—The nature of this invention consists in constructing the machine with concentric fan chambers F F^1, containing fans driven in opposite directions, so as to produce two separate and distinct currents, the object being to effect the separation of oats and wheat previous to cleaning the wheat; this construction of fanning apparatus being used in connexion with a corrugation of the upper screen L.

Claim.—The concentric and opposite moving fans G G, constructed, arranged, and operating substantially as described, in combination with the corrugated head of the upper screen L, the whole operating as specified.

No. 21,662.—W. T. Fisher, of Cleveland, Tenn.—*Improved Grain Cleaning Machine.*—Patent dated October 5, 1858.—This invention consists in the use of an oscillating blast spout and screws, a scouring device, stationary blast spouts, and a fan, whereby grain may be perfectly scoured, or cleaned and separated from all impurities.

Claim.—The oscillating blast and screen spout J, scourer G, blast spouts E F, and fan C, combined and arranged relatively with each other, substantially as and for the purpose set forth.

No. 19,643.—John Leidy, of Lamar, Pa.—*Improvement in Grain Cradles.*—Patent dated March 16, 1858.—In the drawings A is a movable metallic plate, to which the fingers of the cradle are united by means of rods B and screws C, the rods seeving to brace and keep the fingers in position. D is a shank attached firmly to the plate A, and passing through a slot in the scythe snath is held firmly therein by means of a thumb screw E.

Claim.—The arrangement of plate A and its shank D with rods B and screws C, in the manner and for the purpose set forth.

No. 20,809.—John P. Many, of Rockford, Ill.—*Improved Mode of Securing Grain in Bundles or Sheaves.*—Patent dated July 6, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The use of a short band A, cut in suitable lengths for separate bundles, placed in proper position by hand, and automatically passed around the bundle and fastened by the expansion of the bundle when released, substantially in the manner set forth.

No. 20,581.—William Partridge and George W. Shaw, of Ellicott's Mills, Md.—*Improvement in Machines for Cleaning Grain.*—Patent dated June 15, 1858.—The grain on entering the machine falls upon the head H, and is thrown therefrom against the outer casing, and within range of the vertical beaters. The grain passes through the spike beaters G, in its transit to the bottom. When the grain enters the chamber C it encounters a blast of air, which passing

through it carries the impurities up to the blast trunk T, and discharges them from spout R.

The inventors say: We *claim* the combination of the spike-studded beaters G upon drum D, with the notched and grooved dress of the outer casing, constructed as described, the whole arranged and operating together substantially as and for the purposes set forth.

We also claim the combination of the pan W, chamber C, channels I, and blast trunk T, adjustable by means of the vertically moving spout R, attached to sliding breast piece *f*, arranged and operating substantially as set forth.

No. 20,923.—William H. Orr, of Martin's Ferry, Ohio, assignor to William M. Griffiths & Co., of Martin's Ferry, aforesaid.—*Improvement in Machines for Cleaning Grain.*—Patent dated July 13, 1858.—The improvement in this machine consists in performing the labor heretofore done by an attendant by means of the auxiliary shaft K. The revolving shaft or roller K, furnished with any suitable number of straight or curved fingers on projections *o o o*, is placed immediately above the riddle N in the shoe G; said shaft or roller deriving its required motion from any convenient point and being placed at or near the tail of the shoe, or at such point in consequence of the blast from the fan failing to blow off the chaff and other foreign matter, the apertures in the riddle become choked, causing an accumulation of chaff &c., and preventing the grain from passing through the apertures in the riddle.

Claim.—The application of the auxiliary shaft K, constructed in the manner and employed for the purpose described and set forth.

No. 21,036.—B. T. Trimmer, of Rochester, N. Y.—*Improvement in Machines for Cleaning Grain.*—Patent dated July 27, 1858.—The nature of this invention will be understood by an examination of the claim and engravings.

The inventor says: I *claim* giving the screens *a b d* an unequal, reversible, gyratory motion, for the purpose of neutralizing the centrifugal force of the grain, and retaining it in the centre thereof, in combination with the vertical vibratory motion, by means of the double reverse-acting cranks *n n*, cams *s*, and springs *m*, or their equivalents, arranged and operating substantially in the manner and for the purpose set forth.

I also claim the combination and arrangement of the blast generator B, triple blast tubes D, E, and F, and their valves *f h*, and movable diaphragm *s*, with the screen box J, and return spouts P and Q, operating conjointly for separating, screening, and returning the grain, and for increasing, diminishing, and modifying the blasts for the various purposes required, substantially in the manner set forth.

I further claim the adjustable deflector R, in combination with the screen box J, for returning the lighter grain through the screens, and re-subjecting it to the blasts or discharging it as refuse as described.

No. 19,140.—Ashman Hall, of Dansville, N. Y.—*Improvement in Grain Separators.*—Patent dated January 19, 1858.—This invention

consists in the employment of one of two shoes provided with screws, and arranged relatively with each other and a fan, so that the grain is conducted directly to the receptacle prepared to receive it, and is separated from foreign substances.

The inventor says: I do not claim any of the parts when separately considered.

Nor do I claim, broadly, the employment of two shoes in separating machines.

But I *claim* the relative arrangement of the two shoes D G, in respect to each other, and to the fan C, the upper shoe D, swinging laterally, and communicating a horizontal motion to the lower shoe G, by means of the lever H, and all the parts being arranged as set forth, for the purposes specified.

No. 19,899.—Josiah Turner, of Sunapee, N. H., assignor to himself and Edmund Burke, of Newport, N. H.—*Improvement in Grain Separators.*—Patent dated April 6, 1858.—The nature of this invention consists in the application of an upward inclined revolving lattice straw-carrier, to change the motion of the straw and more thoroughly complete the separation of the grain from the straw and chaff, with which is combined a horizontal vibratory lattice, and a smaller adjustable lattice.

The inventor says: I do not claim the toothed cylinder A, or its accompanying toothed concave, nor do I claim any of the described devices separately.

But I do claim the upward inclined revolving straw-carrier S, in combination with the vibratory lattice S^{11}, and the adjustable lattice S^{1}, constructed and operating substantially in the manner as set forth and described.

No. 19,877.—Francis Schunk, of York, Pa.—*Improvement in Grain Separators.*—Patent dated April 6, 1858.—A series of sieves or screens are employed, and a blast-fan arranged relatively with each other, whereby the grain is not only sieved or screened in a perfect manner, but in its passage from one sieve or screen to the other is presented in the most favorable manner to the action of the blast from the fan, so that all the light substances will be blown away.

The inventor says: I do not claim separately any of the parts shown and described, for said parts or their equivalents have been previously used, but I am not aware that the parts have been arranged as herein shown, so that the screens could be inclined more or less as desired, the screens subjected to a jarring shake motion, and the grain subjected to the action of the blast during the principal part of the time occupied in its passage through the machine.

I claim the screens E I J, placed in adjustable frames F H, operated by the cam I^{1}, levers J^{1} K^{1}, and springs *q t*, arranged relatively with each other, and the fan C, spout or passage P, and boards G^{1}, substantially as shown and described for the purpose set forth.

No. 20,522.—Andrew J. Vandegrift, of Lexington, Ky.—*Improvement in Grain Separators.*—Patent dated June 8, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The arrangement of the adjustable feeding tube I, and distributor O, within the wind trunk H, so that the grain may be fed in without allowing a draft or current of air to follow it, and so that the grain may be presented to the blast in thin sheets, and not have their gravitation affected by counter currents or eddies, or accelerated by falling upon each other, or sliding down from above, sustantially in the manner and for the purpose set forth.

No. 20,735.—H. H. Seeley and Philander Griswold, of Hudson, Mich.—*Improvement in Grain Separators.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventors say: We do not claim operating the shoe B by means of the eccentric F^{11}, for this is a well known mechanical device, used for analgous purposes,

But we *claim* forming the fan box C of two parts, *c d*, and the fan D, made also in two parts, so as to have one portion of the fan for each compartment of the box, and having the slides F F attached to the box C, to regulate the admission of air into the opening *f*, between the parts *c d* of the fan box, the whole being arranged as and for the purpose specified.

No. 21,227.—L. Wilcox, of Hudson, Mich.—*Improvement in Grain Separators.*—Patent dated August 17, 1858.—The object of this invention is to augment the working capacity of a grain separator to a very considerable extent, by a novel arrangement of the screens, and operating said screens in a peculiar way; also by a novel feeding device placed in the hopper to agitate the grain and insure its proper presentation to the screens.

The inventor says: I *claim*, first, the reciprocatingfeeder bar G, provided with projections *k*, placed at the bottom of the hopper F, and attached to the shoe E, substantially as and for the purpose set forth.

Second. The two sets of screens *e f* placed within one and the same shoe E, and arranged relatively with each other and the hopper F, substantially as described to operate as set forth.

Third. Giving the screens *e f* a vibratory movement independent of the shake motion of the shoe E through the medium of the rods *m m*, screens H, and rod *o*, substantially as described for the purpose set forth.

Fourth. The screen H attached to the shoe E by the rods *m n*, provided with the bars *s* and the rock bar *o*, for the purpose specified.

No. 21,383.—John D. Tifft, of Cuyahoga, Ohio.—*Improvement in Grain Separators.*—Patent dated August 31, 1858.—This invention consists in having the discharge orifice of the fan case provided with a segment slide, by which the side of the orifice may be regulated as occasion may require, and using in connexion with said slide an adjustable blast director, the whole is so arranged as to answer admirably for winnowing both large and small grain.

Claim.—The employment of a circular side valve H, in combina-

tion with the directing board J, when the parts are constructed and arranged as shown and described for the purposes set forth.

No. 21,877.—Aaron Foster, of Qiency, Ill.—*Improvement in Grain Separators*—Patent dated October 26, 1858.—The claim and engraving explain the nature of this invention.

Claim.—The arrangement of the annular receptacles *m* and *n* in combination with the trumpet-shaped cone *o*; and also the employment of the interior of said cone as an additional receptacle together, for the purpose of assorting the mixed grains after separation from the wheat, according to their respective qualities, substantially as described.

No. 21,945.—William R. Cox, of Delhi, Iowa.—*Improvement in Grain Separators.*—Patent dated November 2, 1858.—This invention consists in the use of a series of suction blast spouts, provided with deflectors and attached to an inclined trunk, which communicates with a fan box, the several parts constructed and arranged in such relation to each other that dirt, chaff, and all foreign impurities may be separated from grain in a very expeditious and thorough manner.

This invention further consists in using in connexion with the above named parts a regulating valve attached to the inclined trunk and provided with a lever and weight, or their equivalents, in order to admit air into the trunk and reduce the strength of the blast thereon, in case it becomes too strong to act in the most efficient way on the grain.

The inventor says: I am aware that suction blast spouts have been arranged in various ways, and I therefore do not claim, broadly, the separating of dust, chaff, and other light impurities from grain, by subjecting the same to the action of a blast in passing through a spout or spouts.

But I *claim* the spouts E F, provided with the deflectors *c d*, connected by the trough I, and arranged relatively in respect to each other, and to the spout D and trunk A, substantially as and for the purpose set forth.

I further claim, in combination with the above, the loaded valve J, applied to the trunk A, and used in connexion with the spouts D E F, for the purpose specified.

No. 21,573.—Cyrus H. McCormick, of Chicago, Ill.—*Improvement in Machines for Cutting Grass, &c.*—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention. The inventor says: Disclaiming such combination of guard fingers and sickle as is shown in Jonathan Read's machine, patented March 12, 1842, what I *claim* is the combination of the sickle, having the scolloped or indented edge and serrated teeth, with a continuous series of fingers, having the back reversed angles for supporting the grain or grass to be cut to the edge of the sickle both above and below the edge, or above the edge only, substantially as described.

I also claim cutting out the middle of the upper parts of the fingers

that project over the sickle, as described in combination with the vibrating sickle, as described for the purpose specified.

No. 22,212.—ELIJAH WAGNER, of Westminster, Md.—*Improvement in Machines for Distributing Guano and other Fertilizers.*—Patent dated November 30, 1858.—The stirrer *d* and the feeder move in different directsons, the one vertically and the other horizontally, and one moves faster that the other; thus, by means of uneven and of different motions, the guano is kept constantly open and is easily discharged. O is a cog wheel which is secured to the shaft connecting the carriage wheel, *p* is a cog wheel which is secured to the shaft or feed *e*, and motion is conveyed from *o* to *p* by means of the cog wheel *n*, which is in the hanger *m*.

Claim.—The combination of the stirrer *d* and feeder *e*, operated in different directions, the two being arranged in the manner and for the purpose specified.

No. 19,281.—JABEZ ROBINS, of Leominster, Mass., assignor to Himself, DANIEL K. HAINES, and S. RICHARDSON, of said Leominster.—*Improvement in Harrows.*—Patent dated February 2, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I do not claim a rotary wheel harrow, nor do I claim the application of a weight to the draught bar so as to rest on one side of the rotary wheel harrow, and by its pressure thereon cause the revolution of the wheel harrow while it is being drawn forward; nor do I claim a rotary wheel harrow made with its toothed rim in sections, as shown in the patent numbered 12,659, of the United States patents.

But I *claim* a rotary wheel harrow, as made with its tooth rim in sections adjustable with reference to the axis of the wheel, as specified, in order that the dimension of the wheel may be varied as set forth.

And with a wheel made adjustable as specified, I *claim* so applying the roller weight to its supporting arm, as to enable the weight to be adjusted nearer to or further from the center of the wheel, and with reference to the adjustable rim, as stated.

No. 19,259 —SAMUEL J. ORANGE, of Grayville, Ill.—*Improvement in Harrows.*—Patent dated February 2, 1858.—A A are two circular harrows which are connected by the beam or crossbar B and the bolts C. These bolts are firmly fixed in the beam B, and the harrows A are allowed to revolve upon them; the rollers *g* in the end of the bar B bear upon the arms of the harrows and keep them in their position.

By placing the harrows a short distance apart, they may be used to advantage for cultitivating corn before it becomes too large to allow the bar which connects the two harrows to pass over it.

The inventor says: I *claim* the combination of the two harrows A with the connecting bar B, or its equivalent, when the harrows are so hung as to produce, by their connexion with it, and thereby with each other, a continued rotation of both harrows, substantially as set forth.

No. 19,489.—Orman Coe, of Port Washington, Wis.—*Improvement in Harrows.*—Patent dated March 2, 1858.—The nature of this invention consists in the combination with the bars of a harrow-frame A of a series of revolving, circular, concave, forked harrow teeth B B B; said teeth serving for breaking up, or pulverizing, and preparing the soil in a condition suitable for receiving the seed, and also for covering in seed.

Claim.—The combination with the bars A of a harrow-frame of a series of revolving, circular, conical or concave, forked harrow teeth; said teeth being arranged oblique to the line of draft, and operating unitedly, substantially as and for the purposes set forth.

No. 19,494.—William De Witt and O. D. Barrett, of Cleveland, Ohio.—*Improvement in Harrows.*—Patent dated March 2, 1858.—In the centre of the harrow A is the centre pin B fastened perpendicular to the frame of the harrow A by means of a screw, cut on its lower end, and two nuts. On the centre pin B, and movable around it horizontally, is the draught bar C, to which the team is attached by the hook D. Above the bar C, and movable like it around the centre pin B, is attached the weighted arm E, kept in its position perpendicular to the centre pin B by the brace F, attached and held at right angles to the bar C, on either side by the connecting rod H.

The inventors say: We are aware that the use of a weighted roller, or its equivalent, upon the periphery of a circular harrow, was patented by S. S. Hogle in March last. We do not claim the use of a weighted roller, or its equivalent, as specified by him.

But we *claim* the arrangement of centre pin B, draft bar C, arm E, weight G, with harrow A, in the manner and for the purpose specified.

No. 20,195.—Jonas C. Conkey, of Washington, Ohio.—*Improvement in Harrows.*—Patent dated May 11, 1858.—This invention relates to the hanging of two wheels to the axletree, by means of which the harrows can be converted into a truck for the purpose of transporting it from place to place. The upper side of the axletree C is cut away so as to admit the shank of the axle H; the shank part H is hinged to the axletree C by a hinge joint *i*. The axles H I are kept steady in a vertical position, while the harrow is at work, by the rod L.

Claim.—The combination of the hinge *i*, axl H I, and axletree C, when arranged in connexion with revolving harrows, as described, for the purpose set forth.

No. 20,325.—Vosco M. Chafee, of Grayville, Ill.—*Improvement in Harrows.*—Patent dated May 25, 1858.—This invention consists in the arrangement and construction of parts by which two rotary harrows A A, hung in the same frame, are made to overlap in their action without the agency of the third to cause them to do so, and also in the arrangement and construction of parts by which the distance they shall overlap may be adjusted.

Claim.—The combination of the side pieces D D^1, crossbars C, or their equivalents, with the rotary harrowing wheels, the parts being

so arranged in connexion with each other, substantially as described, to produce the result stated.

No. 20, 410.—John S. Davis, of Washington, Ohio.—*Improvement in Harrows.*—Patent dated June 1, 1858.—The nature of this invention consists in such a construction of a harrow that it may be conveniently made portable and transported from place to place. The pieces C to which the revolving harrows are attached by the wrists B are placed in the position seen in fig. 1, when the harrow is to be used. This brings the harrow into a horizontal plane, and the key *a* being shoved back to its point, it there holds the tenon of the pieces C from pulling out of the holes in the end pieces D.

Claim.—The arrangement of the harrows A, with the frame C D, the whole being constructed for operation conjointly in the manner and for the purpose set forth.

No. 21,113.—Addison Burdan, of Macon, Mich.—*Improvement in Harrows.*—Patent dated August 10, 1858 —The engraving represents a perspective view of the machine exhibiting its several parts. A is the main frame; B the driving wheels; C the main shaft; D rachet wheel; E the pall; F a bevel wheel; G a pinion; H the shaft; I the crank; 1 the tongue; 3 the tongue supporter; U is the harrow frame attached to the main frame A by bolts *z* and arched bars *x*, which are secured to the frame U at Y; guides V, tooth bars T, projections W, connexion J, plate L, connexion M, oscillating lever O, connexion Q, and joint S.

Claim.—The combination of tooth bars T. having projections W, with guide V, oscillating lever O, and frame U, the whole being constructed, arranged and operated as set forth.

No. 21,153.—Jeremiah Routh and Abel Vaughn, of Grayville, Ill.—*Improvement in Harrows.*—Patent dated August 10, 1858.—This invention consists in two horizontal toothed wheels B B, with a vertical toothed wheel or wheels, and appropriate gearing, in such a manner that the resistance against the teeth of the vertical wheel shall give rotation to the horizontal wheels in opposite directions, and thus correct the side draft, without side dip of the horizontal wheels as represented in the engravings.

Claim.—The inventors say: We are aware that various harrows have been devised in which rotary motion has been given to a horizontal harrowing wheel, by means of a vertical toothed wheel upon a horizontal shaft; said vertical wheel being so hung as to take hold of the soil in passing over it, and so geared to the horizontal harrowing wheel as to give it a rotary motion by its own rotation. This we do not claim.

We *claim* the combination of the vertical toothed wheel D, with the horizontal toothed wheels B B, said wheels being connected by gearing as described, by which we secure the necessary rotation, without either side draft or dip of the horizontal wheels, as set forth.

No. 21,260.—Daniel B. Neal, of Mount Gilead, Ohio.—*Improvement in Harrows.*—Patent dated August 24, 1858.—The nature of this invention consists in the arrangement of the troughs and balls with the frame of the harrow.

Claim.—The arrangement of the troughs B and C (one oscillating and adjustable, the other being stationary, and both provided with balls) with a revolving harrow as described, substantially in the manner andfor the purposes set forth.

No. 21,403.—David C. Ayers, of Lumberland, N. Y.—*Improvement in Harrows.*—Patent dated September 7, 1858.—This invention operates as follows: The cutters *c* serve the function of cutting sods and preventing trash from collecting on the teeth, while the globular projections *a a*, at the base of the cutters, crush the clods severed by the knives and act in conjunction therewith as pulverizers. These projections also serve the function of preventing the frame from draging upon the ground when the teeth have sunk into the soil their full length.

The inventor says: I *claim* the combination of tubular piece B, globular projections *a*, cutters *c*, and teeth T, constructed, arranged and operating together as described.

No. 21,439.—Samuel J. Orange and George Bridelman, of Grayville, Ill.—*Improvement in Harrows.*—Patent dated September 7, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim* the combination of the handles, or their equivalent, with the transverse beams D D, and rollers E E, and the circular frame A, substantially as described, by which we are enabled, by regulating the pressure on the handles, to guide the harrow in the line of the draft or deflect it, at pleasure.

No. 21,542.—Samuel White, of Penfield, Ohio, assignor to Harlow Herrick, of La Grange, Ohio.—*Improvement in Harrows.*—Patent dated September 14, 1858 —The nature of this invention consists in the arrangement of a series of diverging shafts, armed with teeth radiating from the centre of the shaft. Each end of every shaft is provided with a journal, and revolves either by the friction of its own teeth upon the ground, or by means of cog gears attached to a spur wheel. The diverging shafts are so arranged that they can be made to diverge more or less by means of an adjusting apparatus.

Claim.—The adjustable plates C C, in combination with the revolving shafts E E^1 E^2, and in connexion therewith the spur wheel K, all operating in the manner and for the purpose specified.

No. 19,365.—W. A. Horrall & R. G. Sirwell, of Grayville, Delaware.—*Improvement in Revolving Harrows.*—Patent dated February 17, 1858 —This invention consists in the employment of three wheels C C, having teeth and attached to a triangular frame A; two of the wheels being made adjustable, so that they may be brought nearer together or further from each other as required; all the wheels are

provided with pressure rollers so arranged as to insure their rotations with the forward movement of the machine, and at the same time allowing a certain amount of vibratory motion in a vertical direction, so that they may conform to the inequalities of the ground over which they pass.

The inventors say: We do not claim the employment or use of horizontal toothed wheels, for they have been previously used.

But we *claim* the employment or use of three horizontal rotary toothed wheels C C E, arranged as shown, viz: the back wheel E, having a permanent axis, and the two front wheels C C, being rendered capable of lateral adjustment, so that the width of the harrow may be increased or diminished as desired, and the space or width of ground included between the outer edges of wheels C C perfectly pulverized.

We also claim the elastic bars D D F, provided with pressure rollers *i i j*, and bearing on their respective wheels C C E^1, substantially as described and for the purpose set forth.

No. 21,265.—William H. Main, of Liverpool, Ohio.—*Improvement in Rotary Harrows.*—Patent dated August 24, 1858.—The nature of this invention consists in the construction of a harrow that may be used in combination with or separate from a seeding machine, so that when desirable the harrow may be used without the seeder.

Claim.—The manner described for causing the harrow to rotate, namely: by means of the standard E, the slat H^1 in the bar H, and spring K, operating in manner as set forth. Also the manner of raising the harrow from the ground by means of the adjustable bar H, and recesses L L, as described. These several devices combined as described are claimed in combination with a seeding machine, for the purposes set forth.

No. 21,580.—Salathiel S. Thompson, of Heller's Corners, Indiana.—*Improvement in Rotary Harrows.*—Patent dated September 21, 1858.—This invention consists in attaching two harrow wheels to a frame constructed and arranged in a novel way, whereby the wheels may be adjusted in a perfectly horizontal plane, so that they will, as the implement is drawn along, remain stationary or have no rotary motion, and also rendered capable of being adjusted more or less in an inclined position, so as to obtain by the draught movement a greater or less rapid rotation of the wheels as may be required.

The inventor says: I am aware that rotary harrows have been previously invented, and I therefore do not claim broadly rotary toothed wheels for such purpose.

But I *claim* attaching the toothed wheels D D to the frame A, formed of the bars *d d*, hinged together or connected at their front ends by a swivel joint *a*, and having their back parts attached to bars e^1 e^1, connected by a pivot *f*, and secured in proper position by the segments *g*, and pins g^1, substantially as and for the purpose set forth.

No. 21,577.—Jabez Robins, of Boston, Mass.—*Improvement in Rotary Harrows.*—Patent dated September 21, 1858.—This invention

consists in the employment of two annular rotating harrows placed one within the other, connected in a peculiar way, and provided with weights and a draught beam, the whole being arranged whereby a very simple and efficient implement is obtained.

Claim.—The two harrows A C placed one within the other, and connected by the concave rollers *d* and bead *l*, in connexion with the draught beam D and frames E F, provided with the rollers or weights G H, the whole being arranged substantially as and for the purpose set forth.

No. 22,026.—William H. Main, of Liverpool, Ohio.—*Improvement in Rotary Harrows.*—Patent dated November 9, 1858.—The nature of this invention consists in so arranging the driver's seat with respect to the harrow and to the point of draught, that the weight of the driver thereon shall rotate the harrow, and so that by a change in the position of the driver on the seat the teeth of the harrow will be caused to press deeper into the ground, or will press lighter, so as to break up the ground more or less, as circumstances may require; also so that by a change in the position of the seat the harrow shall rotate either to the right or left.

Claim.—The combination of the arm or centre pin B, draught bar or platform D, with the seat C, substantially as arranged, for the purpose of causing the harrow to rotate by the weight of the person on the seat.

No. 19,055.—Jesse Whitehead, of Manchester, Va.—*Improvement in Harvesters.*—Patent dated January 5, 1858.—The nature of this invention consists in making the bearing wheel D, which is at the end of the machine nearest the standing grain, of such a formation as will admit of a part of the rim of such wheel being in front of the cutting knives C.

The inventor says: I am aware that concave wheels have been used heretofore on harvesters, therefore I make no claim to a concave wheel as such.

But I *claim* the concave supporting wheel D, constructed and located as shown and described, in combination with the recess in the shoe for receiving the rim of said supporting wheel, the whole being constructed in the manner and for the purposes set forth.

No. 19,137.—Ezra Emmert, of Franklin Grove, Ill.—*Improvement in Harvesters.*—Patent dated January 19, 1858.—This invention consists in the use of a peculiarly constructed endless apron F, retaining hooks J J, receiving hook L, and binder's platform M, whereby the cut grain is removed from the platform, and retained at one end until a sufficient quantity is collected to form a sheaf, and then allowed to be readily taken from the receiving plate for binding.

Claim.—The peculiarly constructed apron F and retaining hooks J J, in combination with the binding hooks L and platform M, the whole being constructed and arranged for joint operation in the manner and for the purposes set forth.

No. 19,218.—Samuel W. Tyler, of Greenwich, New York.—*Improvement in Harvesters.*—Patent dated January 26, 1858.—The actuating wheel A is secured to the centre of the axle F, and has a zigzag groove formed in its periphery, which enables it to impart motion to the cutter blade by means of the pendulous lever *e* and the pitman *g*. The pendulous lever *e* is jointed to the standard *d*, which rises from its connexion with the central beam *f* of the frame of the machine. The foot of the standard *d* fits into a groove whose sides are formed by the checks *p p*, which are bolted to the beam *f*, and the foot of the standard *d* is also jointed to the horizontal lever *h*, which is placed immediately in front of the cross-beam *f*, and is jointed to a projection from said beam.

Claim.—The sliding head-piece *a*, to which the inner end of the finger-bar is hinged, in combination with the levers *h* and *m*, the movable standard *d*, the pendulous lever *e*, and driving wheel A, when the said parts are arranged for joint operation in the manner and for the purposes set forth.

No. 19,298.—M. G. Hubbard, of Penn Yan, New York.—*Improvement in Harvesters.*—Patent dated February 9, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The attachment of the spring directly to the finger-bar, and placing the shoe on one side thereof and directly in the track of the supporting wheel, as specifically set forth.

No. 19,377.—Frederick Nishwitz, of Brooklyn, New York.—*Improvement in Harvesters.*—Patent dated February 16, 1858.—To the back end of the draught pole E the lower end of a lever H is pivoted at *c*. This lever has a cord or chain *d* attached to it about its centre, passing over a pulley *e*, in the pole E, and attached to the front end of the frame A. A pawl, I, is attached to the lever H, which catches behind a plate J, (when the lever H is drawn fully back,) fitted in the pole E, and on the front end of a small lever *f* a stop, K, is attached to the plate J, and secured by a screw *h*. When the upper end of the lever H is drawn back the pawl I will catch behind the plate J, and the cord *d* will elevate the front end of frame A.

Claim.—The lever H, attached to the draught pole E, and connected by the cord or chain *d* to the front end of the frame A, in connexion with the pawl, lever *f*, and adjustable stop *k*, the whole being arranged to operate as and for the purpose set forth.

No. 19,344.—Albert D. Briggs, of Springfield, Massachusetts.—*Improvement in Harvesters.*—Patent dated February 16, 1858.—The object of this invention is to separate the cut grain, while being discharged in proper quantities from the machine to form sheaves or gavels, from the grain being cut, so that the latter cannot become mixed with the former and prevent the proper discharge thereof from the machine at regular intervals, and in a compact and perfect manner, the grain being discharged from the machine either automatically or manually.

Claim.—The combination of the intermittingly vibrating gate H,

intermittingly moving apron E, and adjustable plates E^1 E^1, placed over the apron E, arranged as shown, so as to operate as and for the purpose set forth.

No. 19,447.—Charles Roberts, of Livonia, New York.—*Improvements in Harvesters.*—Patent dated February 23, 1858 —As the machine is drawn along the fingers *d* d^1 pass between the straws just below the heads containing the grain, and the grain is detached from the heads as the latter touch the front edge of concave H, by the teeth *e* of the cylinder I. The grain is carried up into the separator K by the apron L, and is winnowed therein, the clean grain passing into the lower end of the trough M, and the elevators k^1 carrying it up and discharging it into a bag placed below the upper end of the trough M. The fingers *d* d^1 are raised or lowered to the desired height by operating the windlass E.

The inventor says: I do not claim separately the separator K, for that is in common use. Nor do I claim, broadly, a toothed cylinder and concave, irrespective of the arrangement shown and described.

But I *claim* the arrangement and combination of the peculiarly curved teeth *d* d^1, concave H, elevator L, separator K, and elevator M, as and for the purposes set forth.

No. 19,411.—George S. Curtis, of Chicago, Ill.—*Improvement in Harvesters.*—Patent dated February 23, 1858.—The nature of this invention consists in a curved vibrating stirrup G, suspended within the circle of the driving wheel B ; the stirrup is forked, *g g*, and has two friction rollers H H, which run on opposite sides of a serpentine cam C, in a manner to give a regular reciprocating motion to the cutter bar, and owing to being curved, is peculiarly adapted for use in combination with the slotted pillar blocks E, which support the driving wheel B, and adjust the height of the cutter.

Claim.—The stirrup G for vibrating the cutt bar when made of circular form at *h*, and with two prongs or bearings *g g* at its upper end, two side bearings h^1, and an extension *i*, and when said stirrup is arranged astride the zigzag cam C, and to vibrate laterally on a pivot of a curved overhanging standard F, and operating in rotation to, and in combination with, the slotted pillar blocks E, substantially as and for the purposes set forth.

No. 19,463.—Benjamin Yeakel, of Allentown, New York.—*Improvement in Harvesters.*—Patent dated February 23, 1858.—A is the frame work, B the tongue, with a roller C to relieve the draught of the horses; D is an oil box attached to the pitman E, which is self-oiling, for the purpose of making the pitman (which operates the cutters F) work easier and freer. The cutters F are made with a plain or sickle edge. The cutters R are attached to the sides of the teeth Q with screws or rivets, and can be made broader or narrower as may be required. The guard S, above, is to prevent choking.

Claim.—The combination of the finger Q, cutters R, and guard S, arranged and constructed substantially as described.

No. 19,422.—Charles Howell, of Cleveland, Ohio.—*Improvement in Harvesters.*—Patent dated February 23, 1858.—The nature of this improvement consists in so arranging and combining a raker's or driver's seat, of peculiar construction, with the machine, so that he can throw his weight either towards or from the finger-bar, or on either side of the driving-wheel.

Claim.—The revolving seat, when arranged in the manner substantially as and for the purposes set forth.

No. 19,442.—Hamilton A. Parkhurst, of Fairfield, New York.—*Improvements in Harvesters.*—Patent dated February 23, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I do not claim connecting the finger-bar to the main frame by a hinge joint.

Neither do I claim a double-jointed coupling-frame.

But I *claim* connecting the finger-bar to the main frame by means of the intermediate frame B^1 O and O^1, the same being hinged to the front and rear cross-timbers of the main frame, in a line, or nearly so, with the crank-shaft, for the purpose of relieving the drag of the finger-bar upon the ground, and allowing it to conform to uneven surfaces without varying the throw of the cutters through the guards, substantially as set forth.

Second. I claim the arrangement of the mechanism, as described, for the purpose of raising and lowering the main frame of the machine.

Third. I claim making the finger-bar in the "ogee" form, so that the base of the guards may be placed upon and fastened to the upper side thereof, and at the same time support the cutter-bar in rear of the front curve of the finger-bar, substantially as set forth.

No. 19,552.—Isaac Van Doren, of Somerville, New Jersey.—*Improvement in Harvesters.*—Patent dated March 2, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I am aware that sickle-beams have been constructed with a sort of cap to protect reversible knives, and therefore I do not generally claim so constructing the sickle-beam as merely to furnish a cap for the sickle.

But I *claim* the arrangement and construction of a sickle-beam, substantially as described, so that it shall hold and keep firm the guard-fingers, and also by means of the arched lip C keep the teeth close to the fingers, and permit the use of an open guard.

No. 19,486.—Willis L. Childs, of Piermont, N. Y.—*Improvement in Harvesters.*—Patent dated March 2, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* the arm P, bars T W, and slide U, operated and arranged as shown, or in any equivalent way, so that, by their joint operation, the twine or cord a^1 is adjusted around the sheaf, cut off from the main portion, and the ends twisted and tucked under the band, as described.

I also claim, in combination with the above binding device, the rake G, operated as shown, so as to have a proper relative movement with the parts constituting the binding device, as described, whereby the cut grain is raked into the recepticle Y at the proper time.

I further claim the discharging device formed of the lever Z, actuated from the axle M, through the medium of the lever B^1 and rod C^1, when used in connexion with the rake and binding device, as described.

No. 19,483.—J. S. Butterfield, of Philadelphia, Pa.—*Improvement in Harvesters.*—Patent dated March 2, 1858.—This invention consists in a peculiar manner of hanging and arranging the reel, the means employed for raising and lowering the sickle, and also in the device employed for driving the same; the sickle is capable of being graduated as circumstances require.

The inventor says: I *claim*, first, the reversible cam Q, constructed as shown, namely, with the grooves *i k* in opposite sides, so that the sickle may be driven with either of two different speeds, for the cutting of either grass or grain, as may be desired.

Second. The bars E E F, with the finger-bar J and platform K attached, in combination with the lever G and wheel H; the whole being constructed as described, and arranged relatively with each other and the axle A, as shown, for the purpose set forth.

No. 19,590.—Henry C. Smith, of Cleveland, Ohio.—*Improvements in Harvesters.*—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I do not claim any of the devices named and described as new, in themselves considered, or detached from each other. But what distinguishes my improvement from all others relates to the manner of elevating and depressing the cutter-bar by means set forth, and also in giving any desired pitch to the fingers, or keeping them in a horizontal position, by means of changing the relative position of the neap, in reference to the frame D and drag-bars E E, and at the same time changing the point of draught, as the nature of the case may require.

I *claim* the manner described of raising and lowering the cutter-bar by the combined action of the levers H I J, the flexible rod or cord P P^1, levers R R^1, and wheel S; this I claim when constructed and relatively arranged and operating as described, and also when used in connexion with the drag-bars E E, articulating upon the axle C, as set forth, for the purpose specified.

No. 19,703.—John M. Long, Peter Black and Robert Allstatter, of Hamilton, Ohio.—*Improvement in Harvesters.*—Patent dated March 23, 1858.—The machine is supported by wheels W W^1; the axle *a* of the former being secured to the box *b*, movable in the curved slat *c* of a guide-piece *d*, secured to the gear support A of the main frame. The box *b* is secured to the guide-piece *d* by a nut *e* on the end of axle *a*. The lever *l*, secured to the box, serves to move the box in its guides *d* when nut *e* is loosened. The stay-rod G gives great stiffness to the bar E above it, and prevents it from sinking when the weight of the

platform and raker comes upon it; the rod passes through two eyes *m m* at the extremities of depending staples in the under side of the bar.

The inventors say: We *claim*, first, the combination of the lever-box *b*, guide-piece *d*, and short axle *a*, with nut and screw, constructed, arranged, and operating substantially as and for the purpose set forth.

Second. The stay-rod G, in combination with the bar E, substantially as and for the purposes set forth.

Third. Supporting the rear of the platform by suspension from the stay-rod, substantially as and for the purposes described.

No. 19,803 —William Van Anden, of Poughkeepsie, N. Y.—*Improvement in Harvesters.*—Patent dated March 30, 1858.—The nature of this invention will be understood by the claim and engravings.

The inventor says: I *claim* the use of a rectilinear spring, in combination with the detent cam J, having guides K^1 and K^2 on the face thereof, for the purpose of actuating the cutter of a harvester-machine endwise in opposite directions from a state of rest by the impulsive stroke of the spring, which said spring is charged by its opposite curvatures, while the cutter remains at rest; the said parts being made and operated substantially as set forth.

Second. I also claim the employment and use of the cam wheel J, having on its face guides K^1 and K^2, substantially as set forth, in combination with a crank-shaft, for the purpose of giving two vibrations to the cutter to one revolution of the cam-wheel, substantially as described.

Third. I also claim the combination of the spring, (or spring, as may be used,) with the cam-wheel, crank-shaft and vibrating lever attached to the cutters for the purpose of operating the same, substantially in the manner set forth.

No. 19,749.—George E. Chenoweth, of Baltimore, Md.—*Improvement in Harvesters.*—Patent dated March 30, 1858.—The operation is as follows: As the drum D D revolves, driven by the spur gearing G G, it communicates a reciprocating motion to the pin P and the slide-bar B B attached to it. This bar, being attached to the knife-bar K K, imparts a corresponding motion to the knives.

Claim.—Compensating for the wear of the worm or groove in the driving cylinder, by making the parts of that cylinder adjustable, as described, thus giving increased certainty to the action of the cutters.

No. 19,884.—Isaac Van Doren, of New York, N. Y.—*Improvement in Harvesters*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim elevating the sickle by means of a plate or part swinging on a centre, and moving in a circle, and carrying the sickle with it, this having been done by W. A. Kerby in his invention, patented 1856.

But I *claim* the arrangement and connexion of the movable part E with the fixed part B, by means of the two connecting curves 3 and

4, or their equivalent, to secure proper motion to the part E without any necessary support or connexion from the centre G.

I also claim, in combination with the parts B and E, the secondary movable part K, substantially as described, to bring the sickle, whatever its position on the curve B, level with the cutting surface.

I also claim, in combination with the parts B E and K, the use and application of the universal-joint C, in connecting the sickle lever to the machine, substantially as described, to allow of the change in the position of the sickle, in the manner described.

No. 19,864.—W. K. Miller, of Canton, Ohio.—*Improvement in Harvesters.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim to have invented the separate features of balancing the cutter-bar and its appendages upon a supporting shoe or roller, nor of hinging the same to the central axis around which the tongue or hounds of the machine turn, nor of arranging the central line of draught so as to more nearly equalize the resistance in drawing on both sides thereof, as I am aware that such, in different connexions, are not new.

But I *claim* the combination of the draw-bar F F and cutter-bar P when the same are balanced upon the sustaining-shoe R, and hinged to the axle of the driving-wheel A, distinct from the hounds of the draught tongue, as described, with the tongue H so attached that the line of its draught will be equidistant from the central longitudinal lines of the driving-wheel A and sustaining-shoe R the several parts being constructed and arranged with respect to each other as set forth, for the purpose specified.

No. 19,919.—Davis W. Entriber and Louis H. Davis, of Westchester, Pa.—*Improvement in Harvesters.*—Patent dated April 13, 1858.—This improvement has reference to the manner of elevating and lowering the cutter-bar, and to the manner of throwing the cutting apparatus into and out of gear. The machine is constructed with the side-pieces of the frame extending rearward and permitting the bolting of piece M either upon their upper or lower faces, the same bolts serving for both positions of the bar. The upper and lower faces of the side-pieces being respectively on the same level, and in every respect prepared for the reception of the bar.

The inventors say: We *claim*, first, the combination of shaft K, curved attachment D, lever *l*, pulley G, tongue C, and ratchet H, substantially as and for the purpose set forth.

Second. The combination of the slotted side-piece upon the main axle with the crank working in said slot, substantially as and for the purpose set forth.

Third. The combination of the rollers *p p*, above and below the tongue, with the vertical plates *j z*, as and for the purposes specified.

No. 19,999.—Henry Marcellus, of Amsterdam, N. Y.—*Improvement in Harvesters.*—Patent dated April 20, 1858.—This invention relates to an improvement in that class of harvesters in which a pole

plank is employed to serve as a rest for a lever by which the cutting device is raised and lowered. The invention consists in attaching the draught pole to the pole plank at a point intermediate between the castor wheel and the outer end of the pole plank, and the point where the pole plank is connected with the machine.

The inventor says: I do not claim the pole plank E, with castor wheel G attached, for relieving the draught pole of the weight of the front end of the machine when the sickle is raised, for that has been previously used.

Nor do I claim attaching the draught pole to the pole plank irrespective of the particular arrangement, or the point where the pole is attached, as shown and described.

But I *claim* connecting the draught bars *a a* of the draught pole to the pole plank E at a point intermediate between its castor wheel G at the front end of the pole plank and the point of connexion of the pole plank with the machine, substantially as shown and described, for the purpose set forth.

No. 20,050.—R. Dutton, of Dayton, Ohio.—*Improvement in Harvesters.*—Patent dated April 27, 1858.—This invention is designed to facilitate and render convenient the raising and lowering of the platform and cutter-bar of reapers and mowers.

Claim.—The employment of the loose hollow sliding sleeve G between the hub of the driving-wheel and the short axle F, in combination with the slotted segment C, on the side of the platform, and the adjustable axle F, when the slotted segment is provided on one of its inner sides with the cogs *c*, and the axle with pinion *b* on its inner and screw thread *f* and adjusting jamb nuts *h i* on its outer end; the several parts being arranged to operate substantially as and for the purpose set forth.

No. 20,080.—J. B. McCormick, of Versailles, Kentucky.—*Improvement in Harvesters.*—Patent dated April 27, 1858.—This is an improvement on the mode of discharging the cut grain or hemp from a machine patented by this inventor June 2, 1857. Its object is to facilitate the manual work or process so that the material is discharged upon the ground in compact gavels, two at a time.

The inventor says: I do not claim a rod K placed on bars and so manipulated by the attendant as to form an adjustable or movable rest or platform for the ready discharge of the cut grain or hemp in gavels, for such device has been used in connexion with certain concomitant parts, and was formerly patented by me.

But I *claim* the separator H^1, formed of the bar H and rods *d d*, in combination with the adjustable rod K, bars I I^1, one or more seat D, and reel provided with concave beaters, when the several parts are constructed, relatively arranged, and operated as and for the purpose set forth.

No. 20,152.—R. H. Fisher, of Claremont, New Hampshire.—*Improvement in Harvesters.*—Patent dated May 4, 1858.—In this harvester the frame A is so arranged that it may be readily raised or lowered,

and the mechanism which operates the sickle J thrown in and out of gear with the greatest facility. The finger-bar P is attached in the main frame in a new way, so that the front edge of the finger-bar and sickle may be more or less elevated, as circumstances require.

The inventor says: I *claim*, first, mounting the main frame A on the axle B, so that the frame may slide freely thereon, in connexion with the spirally slotted collar K, placed on the axle, and receiving a pin *k* attached to the axle, substantially as shown and described, whereby the mechanism which operates the sickle may, when desired, be readily thrown in and out of gear with the driving-wheel.

Second. Raising and lowering the sickle J by means of the pulley M placed loosely on the axle B, and the chain *l* attached to the back part of the main frame and to the pulley, substantially as described.

Third. Attaching the finger-bar P to the main frame A, by overlapping the end of the finger-bar and the lower end-piece *n* of the main frame, the finger bar resting on a semi-pherical projection *o* on the end-piece, and adjusted by the screws *p*, substantially as and for the purpose set forth.

No. 20,180.—Lewis Miller, of Canton, Ohio, assignor to C. Aultman & Co., of said Canton.—*Improvement in Harvesters.*—Patent dated May 4, 1858.—This invention consists in so hanging and bracing the cutter or finger bar of a mowing machine to the main frame as that, whilst it is sufficiently rigid to withstand all the resistance against it when the machine is in operation, yet it may be raised up, folded over, and rested upon the main frame.

The inventor says: I *claim* so hinging the bar or beam which carries the cutters and fingers to the beam L as that it may be raised up, folded over, and carried upon the main frame, substantially as described.

I also claim, in combination with the beam L, hinged as described, the braces N S, rigidly connected therewith, but hinged at their opposite ends, so that the beam L may rise and fall at pleasure, but be permanently braced in its proper position to give the cutter and finger bars or beams, in turn, their proper working position, as described and represented.

No. 20,181.—Lewis Miller, of Canton, Ohio, assignor to C. Aultman & Co., of said Canton.—*Improvement in Harvesters.*—Patent dated May 4, 1858.—To the bottom of the shoe A is attached a sole or runner *a* which is fixed to the toe of the shoe. A lug *b* is connected to the shoe which receives a screw *c* that passes through one of a series of adjustable holes in the bent-up end of said shoe. B is the inner shoe with a supporting adjustable wheel C in the front part and in advance of the shoe, so that the said wheel will have rolled or passed over the cut grass before the shoe come to it.

Claim.—In connexion with the inner shoe and adjustable supporting wheel, when said wheel is in advance of the point of the divider or shoe, as set forth.

No. 20,182.—Lewis Miller, of Canton, Ohio, assignor to C. Aultman & Co., of said Canton.—*Improvement in Harvesters.*—Patent dated May 4, 1858.—The platform C is hinged to the main frame A at its front and rear by the beams D. F is the outside reel-post connected to the platform, and G the inner reel-post connected to main frame. The journals *b* of the reel-shaft H is supported and rotates in the reel-post F, but its other journal *c* is square and passes through a corresponding square opening through a ball or eye *d* that will maintain the plane of the longitudinal axis of the reel-shaft.

Claim.—So combining a reel, with a platform and main frame that are hinged together, as that the raising and lowering of either shall not in anywise injuriously affect the rotation and uniform action of the reel or change its position with regard to the cutters, for the purpose and in the manner substantially as described.

No. 20,221.—Oren Stoddard, of Busti, N. Y.—*Improvement in Harvesters.*—Patent dated May 11, 1858 —This invention consists in the use of a supplementary sickle D attached to the shoe A at the outer end of the cutter-bar B, and arranged so as to be operated from any of the usual reciprocating sickles, and at the same time to cut vertically and at right angles with the sickle proper. The object of the invention is to cause the cut grass or grain to be perfectly divided from the standing grass or grain, so that a clean, close, and even swat h is obtained, and a free path for the team.

Claim.—The supplementary sickle D connected with the ickles proper C, and placed relatively with the sickle C, so as to operate as and for the purpose set forth.

No. 20,225.—Henry C. Smith, of Cleveland, Ohio.—*Improvement in Harvesters.*—Patent dated May 11, 1858.—The rabbet or groove *c* in the heel of the cutter-bar is for the purpose of preventing the flexible rod from being interfered with by cut grass or other obstructions. The nature of this invention will be further understood by reference to the claim and engravings.

The inventor says: I *claim* the application of the intermediate wheel X at the end of the finger-bar, when used in combination with the curved lever Y and flexible rod W, arranged and operating substantially as specified.

I claim also the stops *a a* connected to the frame and placed in such position to the line of draught as will tend to counteract the dragging of the guards or finger-bar upon the ground, when hinged to the axle of the driving-wheel by the arms M M^1, substantially in the manner and for the purpose described.

I claim also the steps *d* d^1 in combination with the spurs *f f* attached to the arms M M^1, for the purpose of raising the cutter-bar in connexion with the described system of leverage, as set forth.

Also, I claim the rabbet groove *c* formed in the heel of the cutter-bar in the manner and for the purpose described.

No. 20,227.—John S. Troxel, of Mount Pleasant, Pa.—*Improvement in Harvesters.*—Patent dated May 11, 1858.—In this invention

any reel-post at the outer end of the reel is dispensed with, by means of the revolving yoke lever C being hung on main shaft. Yoke lever C is adjustable by means of slot F in lever E and connecting-rod G and bolt *c*. The line of the blades is changed by means of the movable rear arms of the reel and the bolt T passing through both sets of arms and the metallic plate.

Claim.—Hanging and operating reels for harvesters on the main shaft by means of yoke lever C and slotted lever E, rod G, and movable arms L, slotted blades *d*, pulley and strap *b*, and slotted plate B, with screw bolt T, as set forth and described.

No. 20,191.—C. B. Brown, of Alton, Ill.—*Improvement in Harvesters.*—Patent dated May 11, 1858.—This invention consists in the employment or use of an endless apron F and guide-rods I K, arranged or placed relatively with each other and the sickle or cutting device, whereby the hemp, as it is cut and one swath is formed, is conveyed back from the sickle and deposited on the ground at a sufficient distance from the standing hemp to allow an unobstructed walk or track for the team when the succeeding swath is being formed.

The inventor says: I am aware that endless aprons have been applied to harvesters, and arranged in various ways, for the purpose of discharging the cut grain therefrom.

But I am not aware that an apron has been arranged as shown, and used in connexion with guides, so as to discharge the cut hemp at a distance from the standing hemp, in order to form an unobstructed track for the team. I do not claim, therefore, an endless apron, separately considered, or independent of the arrangement shown.

But I *claim* placing the endless apron F in an oblique position with the sickle E, so as to operate as and for the purpose set forth.

I also claim the endless apron F, in combination with the guide-rods I K and sickle E, when the several parts are placed relatively with each other, as shown, so as to operate as and for the purpose specified.

No. 20,271.—Martin Hallenbeck, of Albany, N. Y.—*Improvement in Harvesters.*—Patent dated May 18, 1858.—The tail-bar C is attached to the bar A by a strong hinge *a*, which permits it to be moved up and down. From near the point of junction of bars C and A a stout arm or lever Y is carried up to near the front end of the bar A, and then attached to an arm or arc *x*. A small wheel V is attached to the bar C, outside of the hinge *a*, to support the rear of the machine and steady the heel-bar.

Claim.—The tail-bar C hinged to the bar A, as described, and having the supporting wheel V at its near end, in combination with the lever Y, for adjusting the inclination of the cutters, when these several parts are constructed, arranged, and operated in the manner and for the purpose set forth.

No. 20,272.—Martin Hallenbeck, of Albany, N. Y.—*Improvement in Harvesters.*—Patent dated May 18, 1858.—The bar E traverses in a groove separated from the heel-bar G by a flange of metal *t*, which rises as high as the upper surface of the cutter. To the top of the cutters coupling slides *m* are attached, serving the purpose of fastening the knives or cutters to the bar and to each other, and strengthening the cutters.

Claim.—The coupling bars *m*, as described, and for the purposes set forth; the cutters fitted to move the level of the heel-bar, in combination with the separate guide caps and coupling bars. The above improvements I claim, substantially as described and for the purposes set forth in the specification.

No. 20,334.—J. H. Conklin, of Rockford, Ill.—*Improvement in Harvesters.*—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the vibrating divider G, in combination with the cutting apparatus, substantially as described, whereby the grain is gathered into the cutters E E, in order that the parts of the machine following after may perfectly clear the standing grain, as described.

Second. The curved or turned up and slotted ends of the finger-bar *e*, as set forth, in combination with a vibrating lever S, as and for the purpose specified.

No. 20,394 —William H. Seymour and Henry Pease, of Brockport, New York, assignor to William H. Seymour and Dayton S. Morgan, of said Brockport.—*Improvement in Harvesters.*—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

We do not claim hinging the tongue to the frame of the machine, nor supporting it between guides, nor raising and lowering the cutter by elevating and depressing the rear end of the tongue when the latter is combined with a lever, screw, windlass, or other similar contrivance to aid the attendant of the machine in raising and lowering the end of the tongue.

But we *claim* the arrangement of the tongue D on a pivot in advance of the cutter, and in a guide E provided with a detent in rear of the cutter; the whole being arranged as described, so that the attendant can conveniently and readily by means of the link E raise the cutter by lifting directly the rear end of the tongue, as set forth.

No. 20,416.—Andrew B. J. Flowers, of Greenfield, Indiana.—*Improvement in Harvesters.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* attaching the frame or platform G and wheel C to a frame A, substantially as shown, so that both may be turned or cramped by the driver from his seat B, for the purpose of allowing the machine to be turned within a small compass.

I also claim operating the sickle J, from the driving-wheel C, by means of the shafts *w* C^1 3, connected by universal joints d^1, and attached to their respective frames, when said shafts, thus jointed or

connected, are used in combination with the arrangement of the driving-wheel and platform, so that the whole may operate conjointly, as described.

No. 20,457.—D. B. Waite, of Spring Water, New York.—*Improvement in Harvesters.*—Patent dated June 1, 1858—This invention consists in a novel arrangement of means for operating the cutting device, and an arrangement of parts for raising and lowering the same; also, in a peculiar arrangement of parts, whereby the device by which the cutting device is operated may be readily thrown in and out of gear. The invention further consists in a peculiar means employed for regulating or controlling the draught pole as regards its vertical motion or position.

The inventor says: I *claim,* first, operating the sickles *m m* by means of the levers L L, attached to the bar H, the rods *n n*, and lever M, actuated by the cam O, the parts being combined and arranged relatively with each other, substantially as described.

Second. Attaching the sickles *m m* to the adjustable bar H, arranged as shown, and used in connexion with the lever I, whereby the sickles may be raised and lowered with facility.

Third. Pivoting the oscillating lever M to the bar N, which is arranged as shown, so that the lever M may be thrown in and out of gear with the cam O.

Fourth. The sliding plate F, placed on the frame A, and arranged substantially as shown, so as to regulate or control the draught pole, and consequently the position of the sickles, as occasion may require.

No. 20,525—Thomas Windell, of New Albany, Indiana.—*Improvement in Reaping Machines.*—Patent dated June 8, 1858.—The nature of this invention consists in the arrangement of the revolving rake, and the several parts which operate the belt which drives and the belt to which said rake is attached.

Claim.—The arrangement of the rake *a* on the endless belt *b*, operated around and below the stationary platform C, in the manner set forth, in combination with the shaft *c*, belt *d*, and lever H, when these several parts are constructed, arranged, and operated in the manner and for the purpose set forth.

No. 20,600.—S. Williams, of Stockton, California.—*Improvement in Harvesters.*—Patent dated June 15, 1858.—This invention has reference to the manner of adjusting the cutting apparatus and platform G, and to the manner of giving a temporary elevation to the cutting apparatus for the passage of obstacles.

The inventor says: I *claim,* first, the combination of the draught piece D, side piece f^1 of frame standard E, lever L, and rod connecting the same with the frame arranged for joint operation, substantially as described.

Second. The short axles A A^1, depending arms thereof, suspension pieces P, finger-bar B, and wheels W W^1, connected together substantially as described, in combination with the aforesaid arrangement for elevating the finger-bar; the whole being constructed and arranged and operating substantially as and for the purposes set forth.

No. 20,593.—Samuel H. Smith, of Magnolia, Illinois.—*Improvement in Harvesters.*—Patent dated June 15, 1858.—The rake is attached to the reel by means of a slide C, guide *e* holding the slide to its place; rod *a* running from the rake *b* through the beater and through the shaft *h* of the reel, holding the rake to its place by means of the spiral spring *k* on the end of the rod *a*.

The inventor says: I do not claim any of the parts separately.

But I *claim* the application of the rake to the reel of a reaping-machine by means of the slides C, guides *e*, rollers *d*, longitudinal planes *i*, and rod spiral spring *k*, when these several parts are constructed and arranged as set forth, for the purposes specified.

No. 20,719.—William F. Ketchum, of Buffalo, New York.—*Improvement in Harvesters.*—Patent dated June 29, 1858.—Figure 3 is a side sectional view of a part of the machine, showing the plate or frame E F and the rock-shaft *c*. G represents the plates or spokes of the wheel; A, the zigzag groove in the interior of the wheel; B C is the rock-shaft, with its arms; D is the pitman, and H are the boxes or bearings below the plate or frame, in which the rock-shaft rests.

The inventor says: I *claim,* first, the plate E E, as a substitute for the usual main frame, placed mainly within the rim of a driving-wheel, whose hub and spokes or supporting plates are placed at the outside laterally of the rim, as described.

Second. The internal zigzag groove in combination with the rock-shaft, with its arms for vibrating the cutters, the whole arranged and operating as described.

Third. Supporting the boxes for the main shaft and the rock-shaft upon a plate, or its equivalent, placed mainly within the rim of the driving-wheel, as set forth.

No. 20,813.—Jeremiah Mitchell, of Gosport, New York.—*Improvement in Harvesters.*—Patent dated July 6, 1858.—The nature of this invention consists in the arrangement of the devices for making a tilting jack, to be attached to the cutter-bar of reaping-machines for the purpose of regulating the cut.

Claim.—Combining with the cutter-bar of a harvesting-machine, in the manner described, the tilting jack constructed as described—that is to say, having the revolving handle G, spring chuck H, stationary catch plate F, pinion E, and rack-bar D, in combination with the wheel C; these several parts being constructed and relatively arranged with respect to each other, and to the cutter-bar, and operating in the manner and for the purpose set forth.

No. 20,806.—John P. Manny, of Rockford Illinois.—*Improvement in Harvesters.*—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—In combination with a main frame A, supported on a fixed position that is parallel with the surface of the ground at all times, and a finger-bar K attached thereto, and operated as described, one arm of the said frame extended sufficiently to the rear to project

over or behind the finger-bar of the machine, substantially in the manner and for the purpose described; and this I claim, whether the caster wheel E be in front of or behind the driving-wheel, as described.

No. 21,093.—J. V. Trump, of Somerville, New Jersey.—*Improvement in Harvesters.*—Patent dated August 3, 1858.—This invention consists in the combination of peculiar knife guards, with a press plate finger-beam and reciprocating cutters, for the purpose of making a more efficient, cheap, and convenient harvester.

The inventor says: I do not claim any of the devices separately.

But I *claim* the combination of the knife guards D with the press plate A, the finger-beam C, and the reciprocating cutters E, when these several parts are constructed and relatively arranged as described, to operate conjointly in the manner and for the purpose set forth.

No. 21,125.—Marcus E. Ellsworth, of Hudson, Ohio.—*Improvement in Harvesters.*—Patent dated August 10, 1858.—This invention relates to the mounting of the driver's seat upon the gear-plank or frame in such a manner that in raising or depressing the cutter-bar the centre of gravity of the seat is changed relatively to the machine itself, and consequently an equilibrium is preserved.

Claim.—The described manner of attaching the seat to the gear-plank by means of the rods M N, or their equivalents, having a pin or hinge point, both upon the gear-plank and footboard, in combination with the rods O and P, or their equivalents, which connect the footboard C directly with the reach-board E, all operating in the manner and for the purpose set forth.

No. 21,401.—R. L. Allen, of New York, N. Y.—*Improvement in Harvesters.*—Patent dated September 7, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* elevating the cutting apparatus and balancing the machine in going over stones, stumps, and other obstructions, and traversing hill-sides by means of the long raker's and driver's seat, in combination with lever *p*, as set forth.

I also claim constructing the spring axle of three several pieces, clamped and riveted in the manner set forth and for the purpose set forth.

I also claim the position of said axle F, the same being at right angles with the line of draught, and performing the office of spring and axle, and fastened by bolt *x*, as described.

I also claim the form of the socket piece for receiving the ends of the spring standard, to support the raker's and driver's seat Q^1.

I also claim the construction of the double shoe and standard, adaptable to the cutting of grain or grass, as set forth, the same being in three pieces, the pieces being put together in a particular way.

I also claim making the shoe under the mortise thick at edge a^1, and thinner at *a*, in order to give greater thickness and strength to the finger-board along *a a*, as set forth.

No. 21,587.—McClintock Young, jr., of Frederick, Md.—*Improvement in Harvesters.*—Patent dated September 21, 1858.—The nature of this invention consists in the new arrangements for operating the rake of harvesting-machines, whereby the cut grain is delivered in gavels at the side of the machine, in the path which has been passed over by the team, while the rake is, during every part of its operation, confined within the limits of the platform, and does not interfere with any of the operative parts, or prevent the driver from being seated on the machine.

The inventor says: I *claim* the combination of the handle J, shaft D, arm L, pitman M, and guide R, or their equivalents, when arranged and operated substantially in the manner and for the purpose specified.

I also claim making the gatherers F adjustable on the arms E of the reel, as and for the purpose specified.

No. 21,612.—David S. McNamara, of North Hoosick, New Jersey.—*Improvement in Harvesters.*—Patent dated September 28, 1858. This invention consists in constructing the frame of the machine in a peculiar manner, whereby great strength with lightness is obtained, and suitable provision made for "straining" the frame or bringing it back to its original proper position in case certain parts became casually displaced by use, and are made to assume undue positions detrimental to the perfect operation of the machine.

The inventor says: I *claim*, first, constructing the frame of the machine of the bars *a b c d*, end-piece H, and finger-bar F, in connexion with the trusses E D K, when the whole are arranged substantially as and for the purposes set forth.

Second. In combination with the frame constructed as above, the shoe G, when constructed as described, and secured by the finger-bar F and end-piece H, in the manner and for the purposes set forth.

No. 21,681.—George F. Jerome and Moses Jerome, of Mineola, New York.—*Improvement in Harvesters.*—Patent dated October 5, 1858.—This invention relates to an improvement in harvesters, whereby the raker may with the greatest facility rake the cut grain from the platform in such a manner that it will fall on the ground nearly in line, and back of the driver's seat, at right angles with the path of the movement of the machine, and at a sufficient distance from the standing grain to allow abundant room for a clear, unobstructed space for the team on the succeeding round, and at the same time leave the grain so that the butts will be in a right line, and in such a state that it may be readily gathered and bound by an attendant.

Claim.—The guard F, formed with an oblique portion *c*, in combination with the seat I, placed relatively with respect to each other and the platform D, as shown and described, and for the purpose set forth.

No. 21,792.—John Woody, of Mount Vernon, Indiana.—*Improvement in Harvesters.*—Patent dated October 12, 1858.—This invention consists, first, in a peculiar means employed for raising and lowering the reel and retaining the same at any desired height; and, second, in a wing or divider of a peculiar construction.

The inventor says: I *claim,* first, placing the reel J between arms I I, which have their back ends pivoted to the machine, and their front ends connected with the eccentrics H H on the shaft G, by means of the yokes *a a*, substantially as and for the purpose set forth.

Second. The roller O attached to the upper part of the wing or divider N, as and for the purpose set forth.

No. 21,741.—George E. Cooper, of Baltimore, Maryland.—*Improvement in Harvesters.*—Patent dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the combination of the straining bar, finger tube, and adjusting screw, with the arms upon which the cutting blade is mounted, for the purpose of keeping the cutter, which is made thin and without stock, under constant tension, substantially as described.

Second. Combining the lever of the shifting clutch with the lever for raising and lowering the cutting apparatus in the manner described, so that when it is necessary to stop the motion of the cutter, the act of depressing the lever performs the three-fold duty of raising the cutter, stopping its motion, and the motion of the raking mechanism, as described.

I do not claim, however, either of these levers, separately considered, nor the functions they perform.

Third. The arrangement of the raking mechanism consisting of two hands, which open as they advance over the platform on each side of the cut grain, and close as they recede, to form the cut grain into a sheaf, and deliver it at the rear of said platform, substantially as described.

No. 21,804.—John K. Harris, of Allensville, Indiana.—*Improvement in Harvesters.*—Patent dated October 12, 1858.—This invention relates to that class of harvesting machines in which the cutter-bar has a longitudinal reciprocating motion imparted to it by means of a rack-shaft and pinion meshing alternately on opposite sides with cogs on the driving-wheel, and consists in a novel construction of rocking pinion, which, by reducing friction and avoiding sudden concussions and lost or intermittent motion, lessens the draught and wear and tear of the machine, and, without change of parts, admits of backing the machine with no transmission of motion to the cutter-bar or sensible resistance from the pinion.

Claim.—The rocking pinion H, constructed substantially as set forth, with cogs p and p^1 adapted to yield, as explained, when passing the ends of the wheel cogs, or on the backward motion of the drive-wheel.

No. 21,827.—Rosewell H. Fisher, of Claremont, New Hampshire.—*Improvement in Harvesters.*—Patent dated October 19, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim,* first, the combination of the connecting rod *e*, slide bar *c*, eccentric wheel *d*, rod *f*, and lever *g*, with the cutter *k*, for the purpose of throwing said cutter-bar in and out of gear, when the several parts are arranged and operated as set forth.

Second. The arrangement of the plates *h*, the cutters *i i i*, the slotted wheels *n n n*, and the cutter-bar *k*, with the fingers *j j*, the same being conjoined, constructed, and operated in the manner and for the purpose described.

Third. I claim securing the reel H to the wheels J J, when it is operated and adjusted by the means set forth, and for the purpose specified.

No. 21,854.—Joseph D. Smith, of Lancaster, Ohio.—*Improvement in Harvesters.*—Patent dated October 19, 1858.—This invention consists in constructing a portion of the reel frame with a horizontal joint near the centre of its length, so that the front end of said frame may have a horizontal movement.

Claim.—Having a horizontal joint in and near the centre of the reel frame piece P^2, substantially as and for the purposes set forth.

No. 21,993.—Charles T. Stetson, of Amherst, Mass.—*Improvement in Harvesters.*—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* combining two double-edged cutting blades with each of the vibrating cutter shanks for the purpose of reducing the number of joints in the cutting apparatus, substantially as set forth.

I also claim combining an inwardly extending curved arm a^1 with the inner end of the finger-bar, when the vibrating end of said arm is made to play between guiding cheeks, or in a guiding groove, and the said inner end of the finger-bar is jointed to a vertically sliding head, all substantially in the manner and for the purpose set forth.

No. 22,032.—Hosea W. Read, of West Windsor, Vt.—*Improvement in Harvesters.*—Patent dated November 9, 1858.—The inventor says: In carrying out my invention, I employ a carriage A, whose front end is supported by a shaft or axle B, sustained by two driving-wheels C D. The journals of the said shaft B extend beyond the carriage A or the boxes *a a* thereof, and into boxes *b b* of a tilting frame E formed and arranged with respect to the carriage A. The rear part of the carriage is sustained by two swivelling wheels F F, from the upper end of whose forks or holders G G two arms H H extend horizontally and parallel to one another and directly over a rack I arranged upon the platform K of the carriage.

Claim.—In its arrangement and combination with the tilting frame and the machinery for operating the cutters applied thereto, as described, a screw-rod or mechanism for spreading the bars of the tilting frame asunder, so as to throw the pinions of the cutter mechanism out of engagement with the gears of the driving-wheels, substantially in manner and for the purpose as specified.

No. 22,084.—James S. Marsh, of Lewisburg, Pa.—*Improvement in Harvesters.*—Patent dated November 16, 1858.—This invention consists in the arrangement of the bent lever J and the arm H of the caster wheel, when the lever is pivoted behind and the arm H is

pivoted before the axle of the driving-wheel, and the two are connected by the link *h* for the purpose of giving a greater motion to the cutter-bar, with the usual range of the elevating lever, in making the angular adjustment of the finger-bar, as seen in the engravings, in which G^1 is the bed plate.

Claim.—The arrangement of the bent lever J and the arm H of the caster wheel, when said lever is pivoted behind and said arms pivoted before the axle of the driving-wheel, and the two are connected by the link *h*, substantially as and for the purposes specified.

No. 22,077.—Stephen Hull, of Poughkeepsie, N. Y.—*Improvement in Harvesters.*—Patent dated November 16, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim connecting the finger-bar to the machine by a hinge joint, nor do I claim connecting the finger-bar to the machine by the double rule joint, nor with the double-jointed coupling.

But I *claim* connecting the inside shoe *b* to which the finger-bar is fastened directly to the main frame, or to one or both the end bars of the main frame by means of circular bearings at each end of the shoe, without any coupling piece, in combination with a small wheel hinged to the inside shoe, substantially as represented and for the purposes set forth.

Second. I claim the notches, holes, or slots in the shoe and flanges near the bearings or joints on which the shoe turns in connexion with the movable catches or bolts that work in them to keep the finger-bar in its proper place or from rising or falling too much over uneven ground, in combination with a jointed shoe constructed substantially as represented and for the purposes set forth.

Third. I do not claim simply attaching a wheel of any kind to the inside shoe; but I claim the arrangement of the small wheel *b* with the jointed frame or bar *i*, hinged to the inside shoe, by which the wheel is allowed to remain in the same position when the finger-bar is turned up to go from place to place, as it is when the machine is cutting grass and the finger-bar rising and falling over uneven ground.

No. 22,163.—Nicholas Clute, of Dunnsville, N. Y.—*Improvement in Harvesters.*—Patent dated November 30, 1858.—The nature of these improvements consists in constructing and arranging the several parts so as to make the rakes pass over and around the reel, and in arranging a pulley under the chain that carries the rakes so as to tip or vibrate them at a proper time to let the grain fall freely.

The inventor says: I *claim* the construction and arrangement of the several parts, as described, for the purpose of allowing the ends of the rakes to pass over and around the reel, in the manner and for the purpose specified.

I claim the pulley O^2 when arranged to tip or vibrate the rake teeth at the top of the inclined plane, as described, and release the grain and straw and let it fall into the trough or box, substantially as specified.

No. 22,203.—William Schnebly and Thomas Schnebly, of Hackensack, N. J.—*Improvement in Harvesters.*—Patent dated November 30, 1858.—This invention consists in the novel means employed for operating or driving the sickle, whereby the same may be readily checked or stopped when desired.

It further consists in a novel application of the sickle to the machine, whereby the sickle may be raised and lowered and retained at any desired height from the surface of the ground, and also rendered capable of being adjusted on the machine so as to allow the latter, when not in operation, to be moved from place to place.

The inventors say: We *claim*—

1st. The arrangement and combination of the pendulous lever E and slide G with the scalloped wheel B, as and for the purposes shown and described.

2d. Securing the frame J, to which the finger-bar is attached, to the main frame by means of the universal joint L and the bar *k*, fitted on the guide *l* on the main frame, or an equivalent arrangement, so that the sickle may rise and fall bodily to conform to the inequalities of the surface of the ground, and at the same time be rendered capable of being placed directly over the main frame to facilitate the transportation of the machine, substantially as described.

No. 22,237.—Henry Opp, of Belleville, Illinois.—*Improvement in Harvesters.*—Patent dated December 7, 1858.—A is the frame of the machine, which is formed of two parallel beams or bars *a b*, placed at a suitable distance apart, and connected at their back ends by a traverse bar *c*. In the bar *a* a wheel B is placed, and a wheel C is placed in the bar *b*.

In using this machine, as it is drawn along, the sickle H is operated from the axle *j* of the wheel B by means of the gearing and crank wheel; and the cut grain, by the aid of the reel M, falls as it is cut on the plate c^1 and bar J, the heads of the grain resting on plate c^1.

Claim.—The employment of the plate c^1, operated as described, in combination with the bar J, or its equivalent, attached to the finger-bar G; the whole being constructed and arranged as and for the purpose set forth.

No. 22,312.—Oren Stoddard, of Busti, N. Y.—*Improvement in Harvesters.*—Patent dated December 14, 1858.—This invention consists in the use of conical rollers attached to the finger-bar, and used in connexion with a sickle bar, having an oblique back, and also used in connexion with a cap plate; the whole being arranged so that the points or front parts of the sickle teeth are made by the action of the grass or grain being cut, or by the resistance offered by the grass or grain to the forward movement of the machine, to bind or bear snugly on the front part of the fingers, and thereby add to the efficiency of the cutting device.

Claim.—The conical rollers G G, two or more attached to the finger-bar *c*, in connexion with the sickle-bar *b*, provided with an inclined back, and the cap plate H, or its equivalent; the whole being arranged to operate substantially as and for the purpose set forth.

No. 22,345.—Chester Bullock, of Jamestown, New York.—*Improvement in Harvesters.*—Patent dated December 21, 1858.—The cutter represented in the engravings has a curved cutting edge *a a* on each side, the stalk of the grain being cut by the motions of this cutter when the stalk lies between the edge *a* of the vibrating cutter and the edge *b* of the stationary or rigid cutter. This vibrating cutter is connected to the vibrating bar *c* by a pin *e* at the back end of the cutter, which fits into a hole *d* in the vibrating bar, and to the finger of the cutter-bar by the end *f* of the cutter fitting into a recess at the base of the finger.

Claim.—Attaching the vibrating cutter to the vibrating bar and fingers, as described.

No. 22,341.—J. A. Barrington, of Fredericktown, Ohio.—*Improvement in Harvesters.*—Patent dated December 21, 1858.—This invention refers to the manner of collecting the cut grain and delivering it in gavels in rear of the machine. Its nature consists in a peculiar combination of devices by which the raking attachment described in the patent of the above named inventor, dated June 8, 1858, is operated.

The inventor says: I *claim* the combination of the bell crank C^1 and guide piece G with the crane C, rod *r* connecting the crank arm *h* with the rakes, and the crank shaft S giving motion to the system, the operation being substantially as described.

I also claim connecting the entire raking mechanism with the vibrating frame F, substantially as and for the purpose set forth.

No. 22,074.—William Grey, of Nicholsville, Ohio.—*Improved Binding Attachment to Harvesters.*—Patent dated November 16, 1858.—The engravings represent a machine embodying the improvements claimed, and adapted for attachment to a self-raking harvester similar to that patented to Jearum Atkins, December 21, 1852, and consisting in means for the automatic binding of grain with a portion of its own straw.

The inventor says: I *claim*, first, the arrangement of gravitating platform F 19, and series of levers G H I J, with their accessories, in the described connexion with a drive-wheel for the automatic starting of the binding mechanism by the weight of the sheaf or gavel, substantially as set forth.

Second. In this connexion the talons 16, 17, 18, 16^1, 17^1, 18^1, constructed and operating substantially as set forth.

Third. In combination with the talons, or their equivalents, the crane I I I and its accessories, having the described compound movement, substantially as and for the purpose set forth.

Fourth. In the described combination with the talons, or their equivalent, the plyers I I, constructed and operating substantially as set forth.

Fifth. The rod *c*, "looper" *s*, and "tucker-in" *t*, constructed, operated, and operating together substantially as set forth.

No. 20,215.—George Notman, of Deerfield, Ohio.—*Improved Binding Device for Harvesters.*—Patent dated May 11, 1858.—This invention consists in the employment of an intermittingly moving apron E, grain receptacle F, certain mechanism for twisting the bands around the grain in the receptacle, and a discharging device; the whole being attached to the machine, and arranged so that the grain, as fast as it is cut by the machine, may be gathered into gavels of requisite size, firmly bound, and discharged upon the ground.

Claim.—The grain box or receptacle F, revolving fork a^1, sliding fork m^1, rod g^1, slide-bar H, and sliding bottom I, arranged to operate as herein described, and used in connexion with any proper raking or conveying device, whereby the grain, as it is cut, is bound and discharged in sheaves from the machine.

No. 19,221.—L. C. Wilder, of Lexington, N. C.—*Improvement in Corn-Harvesters.*—Patent dated January 26, 1858.—This invention consists in the employment of flanched reciprocating cutters V and feed-rollers L L, in combination with a tilting platform or stalk receiver H, the parts being operated and arranged relatively to each other.

Claim.—Combination of the oblique reciprocating flanched cutters V V, feed-rollers L L, and cutting platform H, arranged to operate substantially as and for the purpose set forth.

No, 19,716.—Thomas A. Risher, of Circleville, Ohio.—*Improvement in Corn Harvesters.*—Patent dated March 23, 1858.—The corn is gathered into the cutters by the arms *c c c c*, is cut by the knives *a a*, and falls back upon the endless belt, and against the guide *i*. The corn being carried upon the endless belt, and the concave shocker I being directly under the upper end of the belt, it falls into the shocker from the belt, the machine is then stopped, and the clamp lever J brought in the position in figure 2. By means of this lever the corn may be bound as the head of the shock is compressed.

Claim.—The arrangement of the concave shocker I, clamp lever J, and rest *k*, with relation to cutters *a a*, inclined arms *c c c c*, belt H, and guide *i*; the whole being constructed and operated in the manner and for the purpose set forth.

No. 19,822.—Isaac V. Adair, of Varick, N. Y.—*Improvement in Corn-Harvesters.*—Patent dated April 6, 1858.—This invention consists in the employment of two scythe-shaped cutters, operated in a peculiar way, and working over stationary cutters, and used in connexion with a discharging device, whereby the standing stalks, as the machine is drawn along, are cut at a proper distance from the surface of the ground, gathered and thrown upon the platform, collected into compact form, and, after being bound by an attendant, discharged from said platform upon the ground.

The inventor says: I do not claim the cutters F, operating as shown, so as to effect, in connexion with the stationary cutters E, the desired result, irrespective of the peculiar arrangement and means employed for operating the cutters F; for such cutting device has been previously used.

But I *claim* attaching the cutters F to the rods *a b*, the rods *b* being provided with arms *k*, and the rods and arms operated from the wheels B, through the medium of the gearing G *i f g* and arms *c*, when the above parts are used in combination with the stationary cutters E, at the inner parts of the recesses D, for the purpose set forth.

I further claim the bar H, provided with the arms *q*, in combination with the gate I, the above parts being attached to the platform A, and used in connexion with a railing or guard, so as to operate as and for the purpose set forth.

I also claim the cutting device formed of the cutters E F, connected with rakes or teeth *k*, arranged to operate as shown, in combination with the discharging device formed of the gate I and bar H; the whole operating as and for the purpose specified.

No. 20,067.—Adam Humberger, of Somerset, Ohio.—*Improvement in Corn-Harvesters.*—Patent dated April 27, 1858.—This invention consists of a corn-carrier, provided with pulleys and friction rollers for tightening a rope in binding the corn, and having an arrangement for interlocking the pulleys with the travelling wheels at pleasure.

Claim.—The described corn carrier and shucker, provided with pulleys C, interlocking at pleasure with wheels B, in connexion with the rope S, said pulleys being operated by lever E and rods *e*, for binding and shucking corn; the whole being constructed, arranged, and operated substantially as set forth.

No. 20,645.—Darius Landon, of Wyandotte, Ohio.—*Improvement in Corn-Harvesters.*—Patent dated June 22, 1858.—The claims and engravings will explain the nature of this invention.

Claim.—The platforms F and G, in combination with the endless belts V^2 and shock-supporters P P^1, for carrying the shocks of corn through the machine, and leaving the same in a standing position on the ground.

No. 20,628.—R. B. Corbin and James Morris, of St. Augustine, Illinois.—*Improvement in Corn-Huskers.*—Patent dated June 22, 1858.—This invention consists in attaching to one side of an ordinary box wagon a box having a rake F at its front end, and an inclined trough G connected with it and the wagon body A, the parts being so constructed that as the wagon is drawn along the rake will strip the ears from the stalks, the ears passing into the box, from which they are raked up the inclined plane into the wagon by an attendant.

Claim.—The rake teeth F and box E, attached to the body A of the wagon, as shown, and made to communicate with said body A by means of the inclined trough or plane G; the whole being arranged as and for the purpcse set forth.

No. 21,031.—Albert Stoddard, of Tecumseh, Michigan.—*Improvement in Corn-Harvesters.*—Patent dated July 27, 1858.—This machine is supported by wheels B and C, their axles 6 being attached to the main frame A by their boxes Y at the numeral 7. When it is drawn

on the ground, the wheel B gives simultaneous movement to the master wheel F; that, in turn, gives rotary motion to the pinion E, shaft G, and pinion H; that, in turn, gives rotary motion to the cog-wheel I, saw J, shaft K, and reel L; the wheel B gives simultaneous movement also to band-wheel X; that, in turn, gives simultaneous movement to the pulleys *u*, their shafts *v*, and endless belts T T T, by means of the endless belt W, which passes around the band-wheel and one of the pulleys.

The inventor says: I do not claim being the first inventor of a corn-harvester.

Nor do I claim the parts of my machine separately.

But I *claim* the combination with the main frame A of the pinion E, shaft G, pinion H, cog-wheel I, saw J, shaft K, reel L, guard P, wheel *x*, belt W, shafts V V, their pulleys *u u u u u u*, endless belts T T T, hopper Z, its pivot &, slide 4, bar 3, and caps 5, when these several parts are arranged as and for the purposes set forth.

No. 21,516.—Isaac Reamer and Henry Miller, of Conrad's Store, Virginia.—*Improvement in Corn-Harvesters.*—Patent dated September 14, 1858.—The nature of this invention consists in arranging the diagonally set knife on springs and with its cutting edge slightly elevated above its rear edge. It also consists in the employment of an auxiliary adjustable reel, in combination with the main reel, when said auxiliary reel has its blades, or arms, made broad and convex, and with a sufficient spiral twist to draw the cornstalks into the cart as fast as cut down, and each of said arms has a spring arranged on its convex side to facilitate and insure the falling of the stalks on to the platform.

The inventor says: I *claim*, 1st, arranging the knife E on springs F, and with its cutting edge slightly elevated above its rear edges, substantially as and for the purposes set forth.

2d. The employment of an auxiliary adjustable reel N, in combination with the main reel M, when the whole is constructed, arranged, and operated as and for the purposes described.

No. 22,259.—Bronson Murray, of Ottawa, and John Van Doren, of Farm Ridge, Illinois.—*Improvement in Corn-Harvesters.*—Patent dated December 7, 1858.—The claim and engravings will explain the nature of this invention.

The inventors say: We *claim*, first, in combination with the inclined knife or cutter A, the curved guides or arms *d d* for bending over, and thus facilitating the cutting, substantially as described.

We also claim, in combination with the stationary cutter A, the reciprocating cutter B, when operating together substantially in the manner and for the purpose set forth.

We also claim, in combination with the cutting and guiding or directing apparatus for severing and dropping the stalks, the shovers E E, for moving them rearward, as described.

We also claim the arranging of the conveying apron P upon removable supports F F, and so inclining it that it will convey the stalks

over or past the opening J behind it when used, but leave a delivery at J when removed, substantially as set forth.

No. 20,066.—Miles Hosford and J. C. Avery, of Macon, Miss.—*Improvement in Cotton-Harvesters.*—Patent dated April 27, 1858.—This invention consists in applying a system of gearing to an endless chain of pickers, which are fitted in a suitable frame or case, and so arranged that, as the frame or case is moved, and the pickers thereby adjusted to the bolls, the movement of said case will, through the medium of the gearing aforesaid, wind up a spring which serves as a reverse power to operate the endless chain of pickers when the frame is stationary and the pickers properly adjusted to the bolls, so that the cotton will be picked therefrom and deposited in a proper recepticle or bag attached to the machine.

The inventors say: We do not claim an endless belt of pickers placed within a case or frame, and so arranged that it may detach the cotton from the bolls; for such device has been previously used.

But we *claim* operating the endless chain of pickers B, through the medium of the pulley D, spring F, wheel G, ratchets H I, with pawls k k, and the gearing k k^1 k^2, j, and L L^1, or any equivalent device, whereby a reserve power is obtained as the implement is moved from boll to boll, so that the cotton may be picked or gathered therefrom as the implement is adjusted to the bolls.

No. 19,360.—John Gore, of Fredonia, N. Y.—*Improvement in Cutters for Harvesters.*—Patent dated February 16, 1858.—In fig. 2 the finger D is made in the ordinary way, and placed on the top of it is a steel cutter which is let into a bevelled rabbet F on the front edge of the cutting-bar A, to prevent the back end of the cutter E from rising; the front end is let into the finger D in like manner, forming a *dovetail;* and a screw G let partly into the fore end of the side cutter E, and partly into the shoulder of the finger D, prevents its sliding out of the dovetail, and holds the cutter E firmly in its position.

Claim.—The cutters H, as constructed with the conical truncated pivot near its end, and oblong aperture near its centre, for the purpose set forth, in combination with the cutter E, when secured on bar A and fingers D, by dovetails and set-screw, as described, and for the purpose specified.

No. 21,499.—Charles Howell, of Cleveland, Ohio.—*Improvement in Cutting Apparatus for Harvesters.*—Patent dated September 14, 1858.—This invention relates to the cutting apparatus of reaping and mowing machines, and consists in so forming its constituent parts, and arranging them in relation to each other, as greatly to facilitate the operation of cutting when working in tangled grain or grass; and also to prevent the lodgment and deposition of such fibrous substances as would impede and prevent the free and easy play of the knife over the fingers. The improvement, by means of which the desiderata are carried into effect, consists, first, in a novel construction of the guard-fingers, and secondly, in a new mode of constructing and arranging

the sections of the knife upon which the sickle-bar is when intended to be used, with a finger constructed on the above or a similar plan.

The inventor says: Disclaiming the construction of guard-fingers, as patented by Cyril Wagner, June 24, 1856, I *claim*, first, a finger formed with a frog-shaped concavity on the underside of the knife, having outlets on its sides in front of the finger-bar, in the manner and for the purposes set forth.

Second. A sickle or knife having a series of curved openings *l*, or their equivalents, formed on its rear and under side, when used in connexion with guard-fingers provided with a D-shaped rest K, or its equivalent; the whole being arranged, constructed, and operating in relation to each other in the manner and for the purposes substantially as set forth.

No. 22,468.—W. A. Wood, of Hoosic Falls, N. Y.—*Improvement in the Cutting Apparatus of Harvesters.*—Patent dated December 28, 1858.—A is the finger-bar, which may be a flat plate or bar of iron with its front edge *a* bevelled or cut under. The guards B may be cast in sections of two, three, or more guards to the section; the under portion *b* of the guards have cast upon their rear portions a shield *c*, the back edge *d* of which is bevelled or cut away the reverse of the bevelled edge of the finger-bar, and so as to make with it the inclined joint.

Claim.—The manner described of constructing the guards, and uniting them to the finger-bar, as set forth.

No. 19,920.—Davis W. Entrikin and Levis H. Davis, West Chester, Pa.—*Improvement in Cutting Device for Harvesters.*—Patent dated April 13, 1858.—This invention consists in the combination of a peculiarly hollowed guard finger with a roughness of the cutter-bar for preventing clogging.

Claim.—In combination with the roughness upon the surface of the cutter-bar and cutters, as described, the arching of the finger, and extending it back upon the bar, the hollowing out of the finger under the cutting-bar, the whole arranged and operating as and for the purpose set forth.

No. 21,414.—C. P. Gronberg, of Montgomery, Ill.—*Improvement in Cutting Devices for Harvesters.*—Patent dated September 7, 1858.—This invention consists in a peculiar construction and arrangement of the finger-bar and fingers, whereby the different parts may be constructed wholly of metal and still be extremely light and durable, and the sickle prevented from choking or clogging.

The inventor says: I am aware that concave fingers have been previously used, and also perforated fingers; and I am also aware that various forms of curved metal finger-bars have been employed in order to unite or combine strength and lightness.

I therefore do not claim broadly and separately any of the parts, irrespective of the construction and arrangement shown and described.

I *claim* the semi-cylindrical finger-bar A, concave and perforated fingers B, and the sickle formed of the bar C, and teeth D, when

the above named parts are constructed, combined, and arranged for joint operation, substantially as and for the purpose set forth.

No. 20,243.—Lewis Miller, of Canton, Ohio, Assignor to C. Aultman & Co. of said Canton.—*Improved Finger or Guard for Harvesters.*—Patent dated May 11, 1858.—This invention consists in forming the shoulder on the guard by welding on a piece of iron or steel, instead of making said shoulder by drawing down the bar from it, and in making said fingers of uniform shape, by levelling and truing them on a block after they are made.

The inventor says: I *claim* forming the shoulder on a wrought iron guard by welding on a piece instead of drawing down a large bar, as set forth and for the purpose described.

And I also claim the shaping, levelling and truing of the guard or finger, so as to make them of uniform shape and size by means of a block, as described and represented.

No. 19,518.—Henry C. Smith, of Cleveland, Ohio.—*Improvement in Harvester Fingers.*—Patent dated March 2, 1858.—The external figure of the forward part of the guard is cylindrical and cone-shaped, *b c d*, being formed of one piece of cast metal. The interior of the guard E E^1 is also cylindrical, the cavity being cone-like, the base of which terminates in the opening F between the bars D. By the peculiar form of the guard or finger the knife is protected upon its upper and under sides from all liability to become clogged or choked up with grass or stubble, and, in consequence of the cone-like interior, what little grass or straw may be drawn in is constantly worked backward and discharged through the cavity F between the bars D D.

The inventor says: I am aware that guards for the cutters of harvesters have been made with cavities of various forms, or open both above and below; but for want of strength in some of their parts, or from liability to clog, they are subject to objections which, I believe, are obviated in my improvement, (which forms a new article of manufacture,) which can be applied to any harvester of the usual form of construction.

I *claim* the bars D D, with the opening F, the cone *b c d*, with the cone cavity E E, so formed in relation to the bar D D that the under side of the cone shall project below the said bars attached to the shank A. This I claim when constructed and arranged substantially as set forth, for the purpose described.

No. 20,808.—John P. Manny, of Rockford, Ill.—*Improvement in Harvester Fingers.*—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Tapering the face of the guard-finger B under the sickle-bar C, and to the rear thereof to a point *a*, and forming a cavity under and behind said point, substantially in the manner and for the purpose described.

No. 19,319.—Aaron Van Duzer, of Goshen, N. Y.—*Improvement in Grain and Grass Harvesters.*—Patent dated February 9, 1858.—This invention relates to a new and improved device for harvesters,

and consists in having a series of cutters upon both sides of the bar A so arranged that in whatever direction the machine is drawn the grass will be cut, thus rendering the apparatus a right or left hand machine at pleasure.

Claim.—The arrangement of cutters and fingers upon both sides of their respective bars, whereby the grass may be cut upon either side of the finger-bar A, as and for the purposes set forth.

No. 19,938.—Henry Marcellus, of Amsterdam, N. Y.—*Improvement in Grain and Grass Harvesters.*—Patent dated April 13, 1858.—This invention consists in having horizontal V-shaped ledges *b* at the back parts of the fingers, and having the back parts of the teeth *d*, which are underneath the cutter-bar C, and which work over the V-shaped ledges, formed obliquely at their sides, so that, as the sickle or cutter is operated the ledges, in connexion with the oblique sides of the teeth, will force outward from the back part of the sickle all cut grass or grain which might pass between the cutter-bar C and fingers B, and which would otherwise choke or clog the cutter.

Claim.—The V-shaped ledges *b*, secured in any proper way between the fingers B, at their back parts, in combination with the oblique sides *e*, at the back parts of the cutter teeth *d;* the parts being arranged to operate substantially as and for the purpose set forth.

No. 21,063.—Robert Bryson, of Schenectady, N. Y.—*Improvement in Grain and Grass Harvesters.*—Patent dated August 3, 1858.—This invention relates to an improved arrangement of parts for operating or driving the sickle, whereby the proper speed is given to the sickle from the driving wheel by the employment of a very few parts, with but little friction, and capable of being so disposed as to favor, to a considerable extent, lightness of draught, with a tendency to prevent or counteract what is known as "side draught."

The inventor says: I am aware that cams similar to D have been previously used.

And I also am aware that the double crank connexion is an old and well known device.

I do not claim, therefore, any of the parts separately, or in the abstract, irrespective of the arrangement as shown and described.

But I *claim* placing the cam D in front of the driving wheel *c*, and operating it therefrom by means of the double crank *i* and the rods *h h*, when these several parts are constructed and arranged relatively with respect to each other and to the bar E, in the manner and for the purpose set forth.

No. 22,251.—M. G. Hubbard, of Penn Yan, N. Y.—*Improvement in Grain and Grass Harvesters.*—Patent dated December 7, 1858.—This improvement is intended to adapt the above named inventor's two-wheeled mowing-machine to the purposes of reaping grain on uneven surfaces, and delivering the same at the side of the swath in gavels ready for binding, and also to attain great ease in altering the machine to accomplish the different purposes of harvesting grain and grass.

The inventor says: I *claim* the attachment of the front corner of the reaping platform to the corner of the machine, by means of the hinge K, constructed and arranged substantially as and for the purposes set forth.

I also claim the elastic connexion between the reel and driving power, in combination with the flexible attachment of the outer reel arm, arranged substantially as and for the purposes described.

I also claim the employment of the self-sustaining raising lever, when constructed and arranged as and for the objects specified.

I also claim supporting a portion of the weight of the outer end of the platform, by means of the spring *m*, or its equivalent, substantially as and for the purposes described.

No. 21,533.—John W. Brokaw, of Springfield, Ohio, assignor to Warder, Brokaw & Child, of said Springfield.—*Improvement in Guard Fingers for Harvesters.*—Patent dated September 14, 1851.—The nature of this invention consists in forming the finger of two parts of different kinds of the same metal, so that the strength of the different metals will be brought to bear in the direction that each from its peculiar nature will be best adapted to resist, and so that the cheapest metal will form the larger or heavier part of the finger, by means of which the cost of the finger is materially reduced.

The inventor says: I do not claim broadly making the cap of harvester guard-fingers of wrought or malleable iron with a base of cast-iron.

But I *claim* the peculiar construction of the cap B, as described, when made of wrought or malleable iron, and connected to the cast-iron base A, and to the finger bar, in the manner and for the purpose set forth.

No. 20,618.—Thomas Berry, of Louisburg, Ky.—*Improvement in Hemp-Harvesters.*—Patent dated June 22, 1858.—This invention is designed to afford facility and convenience to the driver while sitting on his seat for quickly adjusting the cutting-bar, when necessary; also to afford like facilities for adjusting the reel to suit different heights of hemp; and likewise to provide a means whereby the hemp can be perfectly bundled and discharged automatically at intervals in gavels.

The inventor says: I *claim*, first, the combination and arrangement, in the manner specified, of the adjustable front supporting wheel *b c*, obliquely set slotted guide-plate D C, and adjusting lever F, as set forth.

Second. Arranging the reel H and the gearing which drives it on the jointed frame I J, which is pivoted to the main frame A, and connected to an adjusting lever J, substantially as and for the purposes set forth.

Third. The combination of transverse bundling bars N N^1, one stationary and the other pivoted, so as to vibrate up and down with the main propelling axle B^1, by means of a pin P on the axle B^1, a

pivoted lever O, a spring rocking arm *l l*, and connecting link *k*, substantially and for the purposes set forth.

No. 21,840.—C. B. MATTHEWS, of Oquawka, Ill.—*Improvement in Maize-Harvesters.*—Patent dated October 19, 1858.—This invention consists in the use of a rotary and stationary cutter, sliding bed and revolving arms, all attached to a suitable platform, mounted on wheels, and arranged so that as the machine is drawn along standing corn may be cut and deposited in gavels on the ground with great facility.

The inventor says: I am aware that saws and stationary cutters have been previously used for harvesting corn or maize, and I am also aware that arms have been used to gather the cut stalks, and eject them from the machine, as shown, for instance, in the harvesters of J. V. Adair, patented April 6, 1858. I do not claim, therefore, the circular saw K nor the stationary cutters M M; nor do I claim separately, and irrespective of arrangement, arms for throwing the stalks on the platform.

But I *claim* the saw K and stationary cutters M M, in combination with the revolving arms *l* attached to shafts N N, when the several parts are arranged to operate as and for the purpose set forth.

I also claim, in combination with the above, the sliding bars or slats *b*, connected with the lever F, and arranged with the opening E in the platform A, as and for the purpose described.

No. 19,019 —SAMUEL COMFORT, JR., of Morrisville, Pa.—*Improvement in Rakes for Harvesters.*—Patent dated January 5, 1858.—The claim and engravings show the nature of this invention.

Claim.—1st. Imparting to the rake the required movement along the platform and parallel or thereabouts with the same, by means of the sliding frame E and slotted bracket *i*, in combination with the lever K, arm M, and segments *m* and *n*, when arranged in relation to each other, as shown, and for the purpose specified.

2d. Producing the lateral reciprocating, combined with the lifting, movement of the rake and its appendages, by means of the connected radial arms G and G^1, as actuated by the crank D and rod F.

No. 19,523.—ISAAC VAN DOREN, of Somerville, N. J.—*Improvement in Rakes for Harvesters.*—Patent dated March 2, 1858.—The nature of this invention consists in so constructing a rake in combination with the platform supporting it and for attachment to harvesters that the rake shall have and receive all necessary motion from the supporting wheel of the platform and without any connexion with the driving wheel, or the other parts of the machine, the rake thus being wholly independent and self-acting.

The inventor says: I *claim* the arrangement or combination of the geared wheel D, having spur and face gearing, as described, and shaft H, with its pinions F F^1 J, in connexion with the supporting roller B and expanding levers M, substantially as described, for the purpose of operating the rake N by the roller B.

I also claim, in connexion with the rake N, when operated as described by means of expanding levers M, the trips K K, for the

purpose of throwing the teeth in a vertical position to carry the grain from the platform.

No. 21,540.—ALLEN SHERWOOD, of Auburn, N. Y., assignor to E. P. SENTER, ALBERT GOSS, and DANIEL WOODWORTH.—*Improved Raking and Binding Apparatus for Harvesters.*—Patent dated September 14, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the traversing the double rake made to rock in its supports, to bring its fingers into and out of action, and automatically fastened and released, substantially in the manner described, and for the purposes set forth.

I also claim, in combination with the fingers *t*, for throwing the gathered gavel up into the concave, the arm *u*, for carrying the binding wire up and over the sheaf, and placing the wire in the slot of the twisting wheel, substantially as described.

I also claim, in combination with the twisting wheel, the sliding knife for cutting off the wire, substantially as described.

I also claim, in combination with the cutter-bar and its stud, the cam 10, for the purpose of causing the cutter to act regardless of the direction in which the shaft that carries the cam turns, substantially as described.

I also claim, in combination with the wire carrier and guides *y y*, a twisting wheel, made and operated substantially as described.

I also claim forming a knot or enlargement on the end of the wire, behind where it is cut off by the cutter, by twisting that portion of it by the means substantially as described, said twist preventing the end from being drawn through the slot of the twisting wheel, as set forth.

No. 20,805.—JOHN P. MANY, of Rockford, Ill.—*Improvement in Raking and Binding Attachment to Harvesters.*—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim*, in combination with a reaping-machine, a rake that automatically throws itself out of gear when it arrives at the outer or grain end of the platform, in the manner substantially as described.

I also claim combining with a rake that automatically throws itself out of gear, and a gathering apparatus, a mechanism by which the driver from his seat, or the attendant at his stand on the machine, can throw said rake into action when desired, for the purpose and in the manner substantially as described.

I also claim, in combination with a rake, and the gathering apparatus to form the gavel the bent arm P, provided with the points *v*, for the purpose of holding one end of the band that is to fasten the gavel when gathered, substantially in the manner and for the purpose described.

I also claim the bent lever n^1, with its forked head, which, when operated as above described, shall carry the band between its prongs, and which, when released, shall be driven back by the spring *n*, releasing the band, the hook of which shall then be driven into the band

by the expansion of the gavel, substantially in the manner and for the purpose described.

I also claim operating the lever u^1 by means of the coiled spring u, for the purpose of adjusting the motion of said lever, so as to bind large and small bundles equally tight, substantially in the manner and for the purpose described.

No. 19,212.—ALLEN SHERWOOD, of Auburn, N. Y.—*Improved Raking and Binding Devices for Harvesters.*—Patent dated January 26, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Bending the grain by means of the wire Y placed on a spool or pulley J, and carried partially around the grain by the hooks g of the arm M, the hooked arm being used in connexion with the stationary fork n and the rotating forks m m^1 and cutter l, said parts being arranged to operate in relation to each other as shown and described.

No. 20,119.—W. A. WOOD, of Hoosick Falls, N. Y.—*Improvement in Raking and Delivering Attachment to Harvesters.*—Patent dated April 27, 1858.—This invention consists in giving to a rake, which works entirely above the platform, its reciprocating and rising and falling motion by means of a single travelling endless belt or chain, and in combining with an automatic rake, which draws and deposits the cut grain at the end of the platform, a delivering apparatus which is operated by the machine whenever the conductor desires it, and when sufficient has gathered to form a gavel.

The inventor says: I *claim*, first, giving the rake its reciprocating and rising and falling motions by means of a single travelling belt or chain, without any other appliances, and substantially in the manner described.

I also claim, in combination with a uniformly moving automatic rake, a delivering apparatus, which is set in motion by the conductor, and butts off the gavel, and returns for the next succeeding similar operation, substantially as described.

No. 19,085.—JAMES L FOUNTAIN, of Rockford, Illinois.—*Improved Raking Attachment for Harvesters.*—Patent dated January 12, 1858.—In operating this machine, by giving motion to the driving wheel D, the cam shaft P is caused by the bevel gearing T U to revolve from left to right; the relative lengths of the crank arms O and H are so adjusted that one revolution of O shall cause the arm H to move only in the segment of a circle and return, which segment shall correspond to the size of the platform A over which the rake is moved. The motion thus communicated to the crank arm H is transferred directly to the rake, through the shaft g and rake arm k, and at each half revolution of the shaft P the rake moves from one side of the platform to the other.

Claim.—I claim the automatic attachments as described, consisting of the double cam wheel E, vibrating lever f, crooked arm i, and loop l, in combination with the cranks O and H, pitman G, and bent rock-

shaft *g*; the whole constructed and arranged as and for the purpose set forth.

No. 19,378.—JAMES W. PATTERSON, of Philadelphia, Pa.—*Raking Attachment for Harvesters.*—Patent dated February 16, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The combination of the elevated or counter platform B, which receives the grain and from which the rake *d* receives and deposits it, with the rake as arranged, viz: with the wheel P on which the outer end of the rake rides, the inclined plane or hinge-rail O, the weight or ball N, and the chain C, substantially as set forth and described.

No. 19,393.—JACOB V. A. WEMPLE and ANDREW WEMPLE, of Chicago, Illinois.—*Improvement in Raking Attachment for Harvesters.*—Patent dated February 16, 1858.—The nature of this invention consists in attaching the rake A to any harvester in such a manner that the rake is made to pass over the platform of the harvester from the sickle D to the rear of the platform and remove the grain therefrom, then in causing the rake to be elevated from the platform sufficiently to be clear from the grain and carried forward to a point nearly above the sickle, where it is made to descend upon the platform.

The inventors say: We do not claim, broadly, giving the rake the movements specified when they are effected by two distinct operations, as devices operating in such manner are already patented.

But we *claim* the peculiarly-formed double crank arm B, connected at opposite extremities with the rake and pitman, and journaled in a swivel box C, substantially as described, in combination with the double-jointed pitman G, and the studs *b* and *c* on the box C, arranged and operating substantially as described.

No. 20,061.—GEORGE V. GRIFFITH, of Sandusky, Ohio.—*Improved Raking Attachment for Harvesters.*—Patent dated April 27, 1858.—This invention consists in the employment of a revolving and an intermittingly reciprocating rake, so placed relatively with each other that the planes of their movement are at right angles with each other, and so operated that the revolving rake is made to carry the cut grain from the front of the platform near the sickle to the reciprocating rake near the back part of the platform, which rake, in consequence of its intermittent movement, discharges the grain in proper gavels upon the ground.

The inventor says: I do not *claim* separately any of the parts described, for I am aware that reciprocating and rotating rakes have been previously used; but I am not aware that a reciprocating and rotating rake combined and operated as shown have been used.

I claim the rotating rake F and the reciprocating rake P, combined and arranged to operate conjointly as and for the purpose set forth.

I also claim the particular manner of operating respectively the rakes F P, as described, to wit: through the medium of the grooves or guides

G G, gearing I J, which connect the two shafts C K and the crank *k* on shaft K.

No. 21,552.—Peter S. Crawford, of Marengo, Ill.—*Improvement in Raking Attachment for Harvesters.*—Patent dated September 21, 1858.—This invention consists in the means employed for operating two rakes, whereby the grain as it is cut is raked from the platform of the reaper and discharged in gavels on the ground at suitable points by a very economical mechanism which may be readily applied and made to work efficiently.

The inventor says: I do not claim, broadly, or irrespective of the arrangement shown, a rake or system of rakes arranged or operated so that one will sweep over the platform and rake a gavel into the other rake, the latter assisting in discharging the gavel from the platform, for such device has been used, and the plan carried out in various ways.

But I *claim* the combination of the rakes O P, the former being attached to the box I, and the latter operated through the medium of the gearing H J K, placed within the box I, and the bars L M, and arm N; the whole being arranged as and for the purpose set forth.

I further claim the supplemental or discharging rake Q, placed over the rake P, and used in connexion with the springs *i* of rake P, substantially as described.

No. 19,958.—Oren Stoddard, of Busti, N. Y.—*Improvement in Raking Attachment to Harvesters.*—Patent dated April 13, 1858.—This invention consists, firstly, in a novel raking device so constructed and arranged that the cut grain, in consequence of its gravity, is made to actuate the rake and be the means of causing it to be raked off the platform, at proper intervals, to form the gavels or sheaves of uniform size. Secondly, there is a peculiar arrangement of the cutting device, whereby the same is made to operate with a comparatively small amount of friction. Thirdly, there is a registering device connected with the raking device, and so arranged as to number the gavels or sheaves as they are raked from the platform.

The inventor says: I *claim*, first, the balance frame F, or its equivalent, connected with fingers or arms *q*, or other raking device, in such a manner that the cut grain by its own gravity, in connexion with the weight or counterpoise K of the frame F, will be made to actuate the raking device so that the gavels will be discharged from the frame of equal weight, however variable the crop being cut may be.

Second. The peculiar arrangement of the balance frame F, shaft D, with clutch *d*, attached pulleys *e e* on shaft D, cords *b*, fingers or arms *g g*, and bar H, substantially as and for the purpose set forth.

Third. The registering device formed of the dial m^1 and index *l*, operated automatically from the raking device, substantially as and for the purposes set forth.

No. 20,378.—J. A. St. John, of Janesville, Wis.—*Improvement in Raking Attachment to Harvesters.*—Patent dated May 25, 1858.—This invention consists of a double vibrating rake, so arranged as to

traverse over the platform of the harvester, and open and close at the desired points, so that the cut grain will be raked from the platform and deposited in proper gavels upon the ground.

Claim.—The particular means employed for operating the rakes, viz: the reciprocating slide I, arm J, crank K, shaft M, with the rakes attached, in connexion with the lever *h*, pinion N, and segment O; the whole being arranged as shown and described.

No. 20,411.—D. O. De Wolf, of New York, N. Y.—*Improvement in Raking Attachment to Harvesters.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not broadly claim imparting a circular or longitudinal motion to a rake by means of a cam, irrespective of the form of the cam.

Nor do I broadly claim elevating or depressing a rake by means of cams either attached to the rake or separate from the rake, irrespective of the devices employed by me, as fully shown and described.

But I *claim*, first, the employment of a cam K of the form described, in combination with the devices employed for operating or stopping the motion of the rake at the will of the driver, for the purpose of imparting a variable reciprocating motion to the rake N during the entire length of the platform D, in a line at right angles to the course of the machine, as specified.

Second. Elevating and depressing the rake, in the manner and by the devices shown, and for the purposes described.

Third. The rake, as described, with the inclined rod *z* and the weight *a*, combined and operating together, as described, and for the purposes as set forth.

No. 20,475.—John A. Barrington, of Frederickstown, Ohio.—*Improvement in Raking Attachment to Harvesters.*—Patent dated June 8, 1858.—The nature of this invention consists in a peculiar combination of devices for grasping the gavel, conveying it to the rear of the machine, and discharging it perpendicular to the track of the machine. The grasping mechanism consists of two rakes *f f*, each suspended by a pin *a* from a slide piece *b*, movable longitudinally in the arm of a crane by a cord connexion C with a pulley *d* at one extremity. The rakes *f f* are moved upon their suspending pins by the groove *g*, in which a stud *v* on the rake arm moves.

The inventor says: I *claim* the reciprocating or vertically moving rack piece R, operating substantially as described, in combination with the shaft B, having an intermittent connexion with the crane and the rakes $f\ f^1$, operated from the rotation of the shaft, arranged and operating substantially as and for the purposes specified.

I also claim the combination of rakes $f\ f^1$, slides *b*, to which they are hung, and the grooves *g* of the crane arm, substantially as and for the purposes set forth.

No. 21,437.—John Nelson, of Rockford, Ill.—*Improvement in Raking Attachments to Harvesters.*—Patent dated September 7, 1858.—The short end L of the rake handle has a strong cord N fastened to

it, the opposite end of said cord being attached to the spring O to allow the cord to be drawn taut without breaking; the spring yielding a little to allow the arm I to pass the dead centre. The rake head M is thus thrown backward, entirely clear of the standing or falling grain. The direction of the rake head is indicated by the dotted lines seen at P P^1.

Claim.—The arrangement of the arm I and rake connected by an articulating joint at J, the spring O and cord N, in combination with the guide Q, operating conjointly in the manner and for the purpose set forth.

No. 21,847.—Adam R. Reese, of Phillipsburgh, Pa.—*Improved Raking Attachment to Harvesters.*—Patent dated October 19, 1858.—The operation of this machine is as follows: The revolution of the shaft F causes the crank E to elevate the toothed end of the rake K by means of the slotted link bar J attached to the oscillating box. The arm C then moves the rake, while so elevated, across the platform, over and above the grain. As the teeth of the rake come vertically over the far side, the slotted link J permits the rake to drop on the grain where it rests, while the arm C draws the rake across the platform, carrying the grain with it.

Claim.—The combination of the vibrating arm C, the rake K, the link piece J, and the crank F, when the several parts are constructed, arranged, and operated substantially as described.

No. 21,940.—W. W. Burson, of Yates City, Illinois.—*Improvement in Raking Attachment to Harvesters.*—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the transverse hinging of frame F^1 as described, for elevating the rake as it moves to the rear.

Second. Adjusting the rake in its position for starting by the gravity of the gear portion of the raking mechanism, combined with the transverse hanging of the frame F^1, the operation being substantially as described.

Third. The combination of the tilting platform P^1, stubble leveler P^2, and glancing board R^1, with the rake for collecting and delivering the cut product, as specified.

Fourth. The combination of shaft S, cam wheel W, spring *l*, and slotted step *h*, substantially as and for the purposes set forth.

No. 22,326.—Joseph Young, of Marshallton, Pennsylvania.—*Improvement in Raking Attachments to Harvesters.*—Patent dated December 14, 1858.—This invention relates to a peculiar means employed for operating a rake, whereby the grain is raked in gavels from the platform and discharged from the platform longitudinally with the plane of the movement of the harvester to which the improvement is attached.

Claim.—The arrangement of the rake bar H, shaft G, rod *j*, provided with friction roller *l*, jointed connecting rods F N attached to crank pulley *e*, inclined adjustable plate K, spring *p*, and nut M, substantially for the purpose set forth.

No. 20,807.—John P. Manny, of Rockford, Illinois.—*Improvement in Track Clearers for Harvesters.*—Patent dated July 6, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—A wing board or track clearer C D, which is hinged to the divider at *a*, and composed of two or more parts, which are hinged together, and which may be adjusted together or independently of each other, substantially in the manner and for the purpose set forth.

No. 22,368.—Obed Hussy, of Baltimore, Maryland.—*Improved method of gathering grain upon and discharging it from the platform of Harvesters.*—Patent dated December 21, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the method described of gathering grain upon and raking it from the platform of a reaping machine, and depositing it upon the ground by a raker riding on the machine directly behind the horses, and the gearing facing obliquely towards the grain which the machine is advancing to cut, and who, at a single operation with his rake, first, presses the grain in front of the machine backward against the cutter and over upon the platform; secondly, by a pivotal motion turns the prostrate grain upon the platform with its stalks parallel to the cutter; thirdly, slides the grain endwise off the platform at the side of the machine; and fourthly, deposits the grain in a gavel on the ground behind his seat and across the track of the driving wheel of the machine as set forth.

No. 20,515.—William H. Seymour and Dayton S. Morgan, of Brookport, N. Y.—*Improvement in Harvesting Machines.*—Patent dated June 8, 1858.—The nature of this invention will be understood by reference to the claim and engravings

The inventors say: We are aware that various modes of changing the gear and the velocity of the cutter have been used in which the adjustments are arbitrarily made, but these require skill and care on the part of the persons employed. These we do not claim.

But we *claim*, first, the combination of the changeable pinions P p^5 and gear wheel D actuating the cutters of reaping and mowing machines with their centres so situated relatively that the changeable parts shall always exactly fit and gear when properly placed and not otherwise, the whole being arranged and operating substantially as set forth.

Second. The combination of the replaceable pinions with the series of holes for the axle of the driving wheel of reaping and mowing machines, so arranged with relation to each other that while the rate of motion of the cutter is changed, the height of the cutter from the ground may be varied at the same time, the proper rate of motion for the different heights being always secured, and in such manner that the changeable parts shall always fit and gear when properly placed and not otherwise.

No. 21,343.—Henry G. Kaufman, of St. Louis, Missouri.—*Improvement in Harvesting Machines.*—Patent dated August 31, 1858.—The

object of this invention is to so construct a harvesting machine as to cause it to gather the straw whole with the head on it in the ordinary way, or to gather the grain by first cutting the head off of the straw, and immediately thereafter cut the straw from the ground, both operations to be performed by the same combination of devices and at the same time, or as nearly at the same time as possible, the first operation preceding the second not more than an instant. And also in providing a more efficient means for guiding the machine and for raising and lowering the knives so as to cut the stubble any required height.

The inventor says: I *claim* first, the described arrangement and combination of the wheel C, with the devices before described, viz: the levers *p* and *q*, turn table B and *m*, and the rachet C, and standard *r*, for the purpose of operating the said wheel so as to guide the machine, and raise the knives *h h h* from the ground, substantially as set forth, for the purpose specified.

Second. The combination of the finger-plate K^1, with the knife-plate M, and the knives *h h h*, when these several parts are constructed, relatively arranged, and operated in the manner and for the purpose specified.

No. 21,869.—J. F. Black, of Lancaster, Illinois.—*Improvement in Grain Discharging Attachment to Harvesting Machines.*—Patent dated October 26, 1858.—The claim and engraving explain the nature of this invention.

Claim.—Operating the gavel discharger, that is to say, the rotating arms *g* of shaft J, from the driving wheel C, through the medium of the wheel H, provided with the slot *d*, and tooth *e*, and the pinion I^1, provided with a quadrilateral plate *h*, as and for the purpose shown and described.

No. 19,689.—Olonzo R. Dinsmoor, of Auburn, New Hampshire.—*Improvement in Haycock Protectors.*—Patent dated March 23, 1858.—The main part A is made of any material capable of protecting the hay from rain. At each corner it has an elastic ground connexion B. The central or middle part of the cover has a tapering pin, C, extended from it, and made of sufficient length to enable it to be driven down into the middle of the upper part of the haycock to a firm bearing.

Claim.—Combining with the cover elastic ground connexions, and a centre pin C, to extend into but not through the hay, the whole being arranged so as to operate with respect to the haycock, substantially described, when applied thereto.

No. 21,150.—E. M. Rees, of Norristown, Pa.—*Improvement in Hay Elevators.*—Patent dated August 10, 1858.—This improvement consists in a peculiar construction of an elevating spring-rod H, bolt F, and rod D, for operating the same, and in the manner of combining these with and arranging them on the frame, the whole forming a substantial hay elevator.

The inventor says: I do not desire to claim broadly the locking of the frame to and releasing it from an elevating rod, as such a device is described and claimed in the patent granted to T. T. Jarret, May 30, 1854.

Neither do I desire to claim broadly a spring latch for releasing and retaining the frame.

But I *claim* the plate G, with its spring bolt F, and rod H, in combination with the forked rod D, with its upper end bent, as described, and its projection f, when the several parts are constructed and arranged with respect to each other and to the frame, substantially in the manner set forth.

No. 22,062.—ROBERT A. CAMPBELL, of Salem, Indiana.—*Improvement in devices for saving the seed from hay fed to stock.*—Patent dated November 16, 1858.—The nature of this invention consists in the combination of the inclined conducting passage, intermediate hay rack, and trough, having a grated or seive bottom and a sliding drawer or seed receptacle whereby the grass seed which escapes from the hay as it descends from the loft, or while being drawn through the rack is collected and sowed.

Claim —The combination of the inclined conducting passage F, intermediate hay rack E, and seive bottom trough B C C, substantially as and for the purposes set forth.

No. 20,241.—CHARLES E. GLADDING and JOSEPH N. GLADDING, of Troy, Pa., assignors to CHARLES E. GLADDING, of said Troy.—*Improvement in Forks for Elevating Hay.*—Patent dated May 11, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The arrangement and combination substantially as shown and described of the head B, joint C, strap *c*, plate *d*, loop E, and cord or wire F, whereby all projecting arms are dispensed with, so that the instrument when not required for hoisting purposes may be used as a common fork.

No. 19,921.—JOHN FASIG, of Jackson, Ohio.—*Improvement in Hay Knives.*—Patent dated April 13, 1858.—The knife C being thrust into the hay, the ends *c c* enter readily, and power being applied by placing the hand upon the handle A^1, and upon the piece B, all the hay within the angle of the knife is cut, the sides of the angle preventing the hay from being pushed away by the force applied to cut it.

Claim.—The angular knife C, constructed substantially in the manner and for the purpose set forth, it being attached to the shank A, as described.

No. 20,772.—JOHN B. BENTON, JOHN FREDERIC BEHN and GOTTLOB BASTIAN, of Buffalo, N. Y.—*Improvement in Machines for Raking and Loading Hay.*—Patent dated July 6, 1858.—This machine will gather the hay or grain by means of the rake teeth *a a a*, which are connected to the arms *b* by means of the rod *c* passing through the heads of the rake teeth *a a a*, the rake teeth are further secured by one end of the circular plate *a* being fastened to the rod *c* which is finally secured to the frame E by means of the brackets *f*.

The inventor say: We do not claim the rake.

Neither do we claim the securing of the shaft to the wagon wheels, nor the forks being attached to the shaft, as broadly considered.

But we *claim* the combination of the bands *o*, plate *d*, and forks *n*, the whole being constructed and arranged for operating conjointly as and for the purposes set forth.

No. 19,812.—JUDSON KNIGHT, of Newark, N. J., assignor to R. W. BOOTH, of Providence, R. I.—*Improvement in the Manufacture of Hoes.*—Patent dated March 30, 1858 —The claim and engravings will explain the nature of this invention.

The inventor says : I am aware that a wrought iron plate has been applied in the form of a cap to assist in the union of the steel blade and malleable cast iron eye of a hoe by the welding process, and therefore I do not claim the iron edge of a hoe uniting plate when not interposed between the steel blade and malleable cast iron eye ; and I do not claim the lapping of the margin of the wrought iron plate over the edges of the flanch of the eye.

But I *claim* the welding of a wrought iron plate between the steel blade and the malleable cast iron eye, substantially as and for the purpose set forth ; or in other words, I claim the hoe constructed of the three pieces A, B, and C, arranged relatively to each other, and welded together substantially as specified.

No. 20,030.—HORATIO N. BLACK, of Philadelphia, Pa.—*Improvement in Rice Hullers.*—Patent dated April 27, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first, the employment of an elastic covering for forming one of the rubbers of a huller composed of alternate layers of cloth and vulcanized rubber, the outer surface of which is formed by incorporating with the vulcanized rubber emery or other hard and gritty material, when the same is combined with an adjacent rubber of metal or other hard unyielding material with a grinding or breaking surface for the purpose set forth.

No. 19,745.—J. V. BLACKWELL, of Ovid, N. Y.—*Improvements in Machines for Hulling and Cleaning Clover Seed.*—Patent dated March 30, 1858.—The power is applied to the cylinder C, a cross band from which drives the feed roller D, and another the fan G. The shoe K, is vibrated by the rod M, hung eccentrically to the pully N on a side rod, which is geared with the shaft of the fan G.

The inventor says: I *claim* the application of the gravitating curtain H, at the point of the eduction of the blast, for the purpose of modifying and diffusing the same, and preventing the waste of seed, substantially in the manner shown and described.

I also claim the combination and arrangement of the overshot grating cylinder C, and feed roller D, with the blast generator G, and blast-regulating curtain H, the whole operating conjointly in the manner and for the purpose described.

No. 20,971.—DAVID HENWOOD and JAMES STEPHENS, of Brooklyn, N. Y.—Assignors to themselves and THOMAS F. ROWLAND, of Brooklyn,

aforesaid.—*Improvement in Machines for Hulling and Cleaning Rice.*—Patent dated July 20, 1858.—The claims and engravings explain the nature of this invention.

The inventors say: We *claim* the cylinder F, provided with wedge-shaped spiral grooves, inclining outwards and downwards, substantially as described, in combination with the stationary india rubber lining D 2, or such equivalent lining that is firm enough to hull the grain, and yielding enough not to break much of it in the process of hulling.

We also claim making the top of the cylinder F convex or conical, with curved wedge-shaped grooves, as described, in combination with the stationary adjustable disk above it, lined with india rubber, gutta percha, or some equivalent substance for the purpose set forth.

We claim a cylinder covered with wire card clothing, in combination with a cylinder of perforated sheet metal, when both are made to revolve in opposite directions for the purposes set forth.

We claim the huller covered by the first claim, in combination with the scourer covered by the fourth claim, arranged and operating as described.

No. 20,249.—John C. Birdsell, of Rush, N. Y.—*Improvement in Machinery for Hulling and Threshing Clover.*—Patent dated May 18, 1858.—The clover is placed on the table A, where it passes over the threshing drum D, where all the clover is beaten loose. The straw is then carried forward over the apron E to the upper bolt B, the clover seed passing through the holes therein and falling on to the under bolt B^1, where it is further cleaned. It then passes to the table T, and is carried forward by the belt of slats *b b*, and having fallen down the inclined plane P, passes into the cylinder L, where it is effectually hulled.

Claim.—The arrangement of the slatted belt *b b*, with the bolt, B B^1, table T, threshing cylinder D, hulling cylinder L, and fan F, the whole operating in the manner and for the purpose substantially as set forth. It being understood that I claim the above described devices and arrangements only as applied to the construction of clover hulling machines.

No. 20,830.—John F. Taylor, of Charleston, S. C.—*Improvement in Rice Hulling Machines.*—Patent dated July 6, 1858.—The object of this invention is to obviate the difficulty attending the use of the crank which has hitherto been most usually employed for giving a reciprocating motion to a pestle D, which works within a vessel of proper form. The pestle requires to be driven with a rapid motion, and as the resistance to its motion, is of course, variable, more force being required at its downward than at its upward stroke, the crank pin as well as the journals of the crank shaft become worn and rendered useless. The invention consists in giving a reciprocating motion to the pestle by attaching the same to a lever c^1, which is operated through the medium of three geared eccentrics F G H, whereby the pestle may be driven with but little wear of the working parts, and by a moderate expenditure of power.

Claim.—The employment or use of the curved lever frame attached at one end to the bed piece A, and having the pestle D permanently secured to the opposite end, the above parts being placed relatively with the vessel B, as shown and described, and used in connexion with the geared eccentrics F G H, arranged relatively with each other and the lever frame c^1, substantially as and for the purpose set forth.

No. 19,557.—A. M. George, of Nashua, N. H.—*Improvement in Machines for Hulling Rice.*—Patent dated March 9, 1858.—The rice is placed in the hopper H, and power applied to the shaft B, the rice in passing down between the rotating conical head C, and shell D, has the hulls stripped from the kernels or grains. The hulls and kernels pass down through the tubes Q into the spouts R, and as it falls the hulls are blown from the kernels by jets of air which issue from the openings *f* in the annular chamber K. The blast is generated by the fan M. When the cylinders J are filled, the cheels *c* are thrown in gear with the wheels *d*, the openings *e* being closed by slides, and as the cylinders J rotate the grain is polished and rendered smooth.

The inventor says: I do not claim separately or in themselves considered the conical rotating head C and shell D, for they have been previously used for similar or analagous purposes.

But I *claim* the arrangement, as shown and described, of the conical head C, shell D, fan M, and annular blast or wind chamber K, for the purposes specified.

No. 20,138.—Francis Burdick and Lodowick Burdick, of South East, N. Y.—*Improvement in Machines for Hulling Rice.*—Patent dated May 4, 1858 —A detailed description of this invention would require too much space to be given here. The cylindrical runners E are of stone, and are in the form of a frustum of a cone. The runners E are enclosed in corresponding concaves G, each formed from two blocks of stone, one half the concave being cut from one and one half from the other, and so made that the runner fits the concave.

Claim.—The peculiar dress in our horizontal stone mill, composed of the frustum of a cone and its corresponding concave, constructed and operating as and for the purpose described.

No. 20,552.—Philip Dickenhoff, of Philadelphia, Pa.—*Improvement in Machines for Hulling Rice.*—Patent dated June 15, 1858.—By making C of wide form a free open space is constantly secured in its "wake" for the discharge of the grain from between the spikes *f g*, and the acting edge of the rapidly revolving clearer by reason of said wide body form thrown *in advance* so as to catch such grain and convey it to the spout before it has time to accumulate on the bottom of the outer cylinder A.

The inventor says: I *claim* the combination with the compensating delivery spout *b* of a revolving clearer C interposed between the said spout and the hulling mechanism or surfaces, essentially as set forth.

I likewise claim the revolving clearer C, constructed as described,

with its opposite acting sides or edges shaped to produce similar action in opposite directions of travel, and the outer ends of said edges formed to counteract the centrifugal throw of the clearer, as specified.

No. 20,833.—Robert P. Walker, of New York, N. Y.—*Improvement in Machines for Hulling Rice.*—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim wheels or cylinders covered with emery in themselves, neither do I claim india rubber or elastic rollers *h* in themselves, but I am not aware that a surface of emery has ever before been used in connexion with an elastic roller or surface, to one or both of which a motion is communicated so that the emery abrades and removes the hulls of the rice or grain while partially imbedded and held by the elastic surface as specified.

What I *claim* is, first, a surface of emery in combination with an india rubber or other elastic surface for hulling rice or other grain, when motion is communicated to one or both of said surfaces in such a manner that the said surface of emery abrades the hulls for removing the same, as the rice or other grain is partially imbedded or retained by the said elastic surface, for the purposes and substantially as specified.

Second, I claim imparting an end-wise motion to an elastic roller *h* or its equivalent, in combination with a revolving roughened surface, when the same is used for the purpose of hulling rice or other grains, substantially as specified.

No. 20,860.—Joseph L. Bossard, of Sumterville, S. C.—*Improvement in Machines for Hulling Rice.*—Patent dated July 13, 1858.—This is an improvement in that class of machines for cleaning and hulling rice in which pestles or pounders are used for effecting the purpose. The invention consists in a novel arrangement of arms *b b d* attached to a horizontal rotating shaft E for elevating the pestles, whereby the pestles or pounders are elevated the requisite distance by comparatively short arms, and consequently with a corresponding diminution of power.

Claim.—The employment or use of the arms *b b d* attached radially to the rotating shafts E, in connexion with the projections *c c d* on the pestle shafts C, the parts being arranged to operate as and for the purpose set forth.

No. 19,018.—Emil Cohen, of Washington, D. C.—*Husking and Shelling Glove.*—Patent dated January 5, 1858.—A represents a glove or mitten, to the palm of which is secured a shield B of leather, metal, or any other suitable material; from this shield extends a number of pins *a* in a direction which is perpendicular to the face of the shield, and consequently to the palm of the hand.

Claim.—The husking and shelling glove, as described, as a new article of manufacture, when constructed and operated substantially in the manner and for the purposes set forth.

No. 19,083.—Henry Fisher, of Canton, Ohio.—*Improvement in Mowing Machines.*—Patent dated January 12, 1858.—This improvement consists in the inner end of a finger-bar, pivoted to the frame of a machine of a weighted lever, by means of which the weight of the outer end of the finger-bar is counterbalanced, thereby removing, in a great measure, the friction of the dividing shoe, which otherwise has a tendency to cause the machine to turn on it as a pivot.

Claim.—The arrangement and combination of a weighted lever G, with a finger-bar pivoted to the frame of the machine, substantially as and for the purposes set forth.

No. 19,504.—Charles Howell, of Cleveland, Ohio.—*Improvement in Mowing Machines.*—Patent dated March 2, 1858.—This improvement consists in a new mode of connecting the main frame to the trunk frame, by means of which the height of the cut may be readily regulated as required, and at the same time the finger-bar allowed freely to accommodate itself to the inequalities of the ground.

Claim.—The method of connecting the truck to the main frame of a reaper or mowing machine and of regulating the height of the cut, &c , substantially as set forth.

No. 19,913.—William Crook, of New Hope, Pa.—*Improvement in Mowing Machines.*—Patent dated April 13, 1858.—To the back of the cutter frame is secured the driver's seat Y, so far behind the centre of vibration of the cutter frame that a man of ordinary weight, when sitting on it, will act as a counterbalance, or nearly so, to the cutting apparatus.

Claim.—Securing the driver's seat to the hinged cutter frame of a mowing machine in such a position as regards the centre of vibration of said frame, that the weight of the driver may act as a counterbalance, or nearly so, to the cutting apparatus, for the purpose specified.

No. 20,035.—Thomas D. Burrall, of Geneva, N. Y.—*Improvement in Mowing Machines.*—Patent dated April 27, 1858.—This invention consists of a peculiar arrangement of devices for connecting a caster wheel with the main frame, in such a manner that the finger board can be elevated, when not in use, the desired amount for cutting the grass closer to the earth or further from it, or for converting the mowing machine instantly into a reaping machine.

Claim.—The auxiliary frame *r* and caster wheel *w*, forming a carriage to which the animals are attached by a loose pole, when combined with the sector *s*, lever *t*, and standard *v*, as specified, whereby the forward part of the main frame *a* and the cutter bar *d* are elevated or depressed on a line between the caster wheel *w* and main wheel *b*, substantially as and for the purposes specified.

No. 20,164.—Henry Marcellus, of Amsterdam, N. Y.—*Improvement in Mowing Machines.*—Patent dated May 4, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—Attaching the main frame D of the machine to the axle

A, by connecting the frame, by means of journals *c d*, to the sleeve or collar C, which is placed loosely on the axle A, substantially as and for the purpose set forth.

No. 20,479.—John Butter, of Buffalo, N. Y.—*Improved Mowing Machine.*—Patent dated June 8, 1858.—The nature of this invention relates to an improvement in the construction of the frame A B, so as to give the machine the feature of flexibility when mowing, and adjustability for reaping; and in the construction and arrangement of a wheel L to carry the inner end of the finger bar, so that the wheel will tread on a line with the finger bar, and allow the cutter bar to vibrate through the wheel; also, in so constructing the guard fingers that they may be connected to the finger bar and support the finger bar *clear* from the ground, and allow the bar to work on the under side of the finger bar.

The inventor says: First, I *claim* the combination and arrangement of the jointed levers C D E, for the purpose of supporting the driving wheel and giving flexibility to the machine, substantially as set forth.

Second, I claim the arrangement of the carrying wheel L near the heel of the cutter bar, so that the finger bar will pass through the wheel, and the cutter bar (or connecting rod) also vibrate through the wheel, substantially as described.

Third, I claim constructing the guard fingers so that they may be connected to the finger bar, and support it clear from the ground, and also allow the cutter bar to work on the under side of the finger bar, as set forth.

Fourth, I claim the sleeve W, when connected with the spring bars H H, for the purpose of supporting and adjusting the driver's seat on the axle of the driving wheel, as described.

Fifth, I claim the arrangement and support of the raker's seat on the lever C, as set forth.

Sixth, I claim supporting and carrying the outer end of the finger bar, by means of the specific arrangement of the divider N, wheel L, and spring O, as described.

No. 21,607.—George F. Jerome and Moses Jerome, of Mineola, N. Y.—*Improvement in Mowing Machines.*—Patent dated September 28, 1858.—This invention relates to the employment of certain means for elevating and depressing the cutting device or sickle, and sustaining the same, whereby the sickle, as the machine is drawn along, is allowed to readily conform to the inequalities of the surface of the ground.

The inventors say: We *claim*, first, the caster wheel K, when attached to the shoes G G, or their equivalents, by having its arbor J pass loosely through a socket I attached to the cross bar H, and having a swivel *b* at the upper end of the arbor, so that by the aid of the pulleys *c d* or other guides and a chain or cord *e*, the weight of the finger bar and sickle will be transmitted to the caster wheel, and the finger bar and cutter raised and lowered, while the caster wheel is allowed

to turn freely in any direction, without affecting in any way its concomitant parts.

Second. We claim the lever L and spring N, in combination with the chain or cord *e*, caster wheel K, and shoes G G, when the whole are arranged to operate substantially as and for the purposes set forth.

No. 21,777.—Fisk Russell, of South Boston, Mass.—*Improvement in Mowing Machines.*—Patent dated October 12, 1858.—This invention relates to an improvement in that class of mowing machines in which detached pivoted vibrating oscillating cutters are used. The object of the invention is to so arrange the cutters that they will offer no obstruction to the cut grass, but allow the same to pass freely over the finger bar without the possibility of choking or clogging the cutting device.

Claim.—Attaching the cutters J to hubs or bosses *q*, which are fitted on pins *r*, in the finger bar, and provided with arms *u*, which are fitted in notches in the cutter bar H, the bosses *q*, arms *u*, and bar H being covered by a plate substantially as and for the purpose set forth.

No. 19,936.—Abraham Marcellus, of Amsterdam, N. Y.—*Improvement in Track Clearers for Mowing Machines.*—Patent dated April 13, 1858.—The improvement in this track clearer consists in the manner in which a plate or board is operated or vibrated. The plate or board is pivoted to the shoe D, and fitted within the wing E, at the outer end of the finger bar B of the machine, the vibrating board and ring forming the track clearer.

The inventor says: I do not claim separately the wing E and the plate or board F, for they had been previously used.

But I *claim* operating the plate or board F from the driving wheel C, by means herein shown, or its equivalent for the purpose set forth.

No. 19,800.—William J. Stevenson, of New York, N. Y.—*Machine for Shelling Peas.*—Patent dated March 30, 1858.—The operation is as follows: The peas to be shelled are placed in the hopper H, and the roller D is rotated in the direction of the arrows. The hopper is vibrated vertically by means of the cams G, and the peas are fed thereby from a hopper on the endless cords F, which convey the peas to the rollers C D. The pods, as they pass underneath the roller C, are depressed or forced down, the cords F yielding; and the pods will be split by the pressure, and will be caught in the "bite" of the rollers, and as the pods are drawn between the two rollers C D, the peas will be stripped from their pods and forced between the cords F into the draw B.

The inventor says: I do not claim separately and broadly the employment or use of rollers as separators, for they have been previously used for such purposes, as, for instance, in the roller cotton gin, where the seed is stripped from cotton by the same process as herein described.

Neither do I claim broadly the employment of the rollers with an endless belt or carrier, irrespective of the construction of the same,

and its arrangement with the rollers, whereby the apron serves as a carrier for the pods, and allows the shelled peas to pass through it.

I *claim* the combination of the rollers C D E and endless cords F, arranged to operate substantially as and for the purpose set forth.

No. 19,198.—P. C. Mosier, of Homer, Ill.—*Improvement in Corn Planters.*—Patent dated January 26, 1858.—The nature of this invention consists in pivoting the beam A to the forward axle C, and having its rear end, which carries the tubular furrow opener E, covering shares F F, seed hopper G, and driver's seat, arranged to run directly upon the ground.

Claim.—The beam A, when shaped as specified, and pivoted to the axle C by its forward end, and has its rear end which carries the tubular furrow opener covering shares, seed hopper, and driver's seat, arranged to run directly upon the ground, substantially as and for the purposes set forth.

No. 19,242.—Nathaniel Drake, of Newton, N. J.—*Improvement in Corn Planters.*—Patent dated February 2, 1858.—A A are the traction wheels, B is the axle, D the ploughs, and are so constructed to this axle that they may rise and fall independently of each other; the ploughs are hung to the beams E*e* E*e* E*e*, which are jointed to the axle B. The stanchions or posts F are framed into the axle B, to support the rollers G H. K K K are the hoppers, in which the seed is placed; they terminate in tubes L.

The inventor says: I *claim*, 1st, the agitator *g*, arranged with relation to the seed boxes and valves, substantially as set forth.

2d. Combining with one of the weights which operate the valves, or its equivalent, a cam-shaped gear wheel, corresponding in form with the cams which operate said weights, substantially as and for the purposes set forth.

No. 20,024.—George Taylor, of Richmond, Ind., assignor to Himself and John W. Free, of Laporte, Ind.—*Improvement in Corn Planters.*—Patent dated April 20, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: Now I do not claim any particular method for the distribution of the grain, but I disclaim the method shown, and all other methods of distribution, for I hold that what is strictly my invention is applicable to many or most methods or devices for distribution now in use.

Neither do I claim the devices shown for operating the distributing apparatus by means of inclined planes *j j*, held in contact with cam *j* by means of a spring S, as this contrivance is already before the public.

Nor yet do I broadly claim the use ef either springs or weights for operating the marking contrivance.

But I *claim*, 1st, the combination of parts j^1 j^1 *l*, shaft L, and wheel K, with slide G, for the purpose of correcting the machine and making it plant in line with work already done.

2d. I claim the weighted spring arms *p p*, operated as shown, in

combination with the devices shown for correcting the machine, when said spring arms are so situated as to mark midway between the rows of planting.

No. 20,074.—Oliver Lippincott, of Camden, N. J.—*Improvement in Corn Planters.*—Patent dated April 27, 1858.—This invention consists in the arrangement for attaching a planting apparatus to plough Z^1, so that the farmer may plough, furrow, plant, and cover his corn at one and the same time:

Claim.—The arrangement of the plough Z^1 and its beam B, with frame A, and its hopper C, weight L, slide N, wheel E, and covering share I I^1, the whole arranged for joint operation, as shown and described.

No. 20,193.—Robert J. Clay, of St. Louis, Mo.—*Improvement in Corn Planters.*—Patent dated May 11, 1858.—This invention consists of a double seed hopper D D^1, and in applying thereto a reciprocating drop valve J, so constructed and operated as to cause it to drop one, two, or more hills of corn every revolution of the wheel, to which the said valve is to be connected, and by which it is to be operated.

Claim.—The arrangement of the hoppers D D^1, valve J, wheels *k*, shaft *a*, standard *e*, and scraper *l*, when the whole are constructed to operate conjointly as and for the purpose specified.

No. 20,297.—L. B. Phelps, of Geneva, Ohio.—*Improvement in Corn Planters.*—Patent dated May 18, 1858.—This invention consists in constructing an implement for corn planting with runners *a a*; they are made out of two-inch plank, are from four to six inches in width, and about three feet in length. That part of the runners which runs upon the ground is made like a sled runner, and is shod with iron, which should be about four inches in width. The furrow openers *c c* are adjustable, and are applied to the front ends of the extended section of the runners, and are held or secured there by a strip of iron bent at right angles around the front ends of the runners, and are firmly screwed to them. The seed boxes *n* are placed directly in rear of the furrow openers, and are fastened to board *h*.

The inventor says: I do not claim to be the inventor of runners, handles, seed boxes, or furrow openers or drills: these are old devices, and in common use.

But I *claim* the arrangement of the adjustable furrow openers *c c*, handles *f f*, lever *k*, and spring catches *y y*, with runners *a a*, the whole being constructed for joint operation as described and shown.

No. 20,467.—Augustus C. Carey, of Ipswich, Mass., assignor to Himself and Alfred B. Ely, of Newton, Mass.—*Improvement in Corn-Planters.*—Patent dated June 1, 1858.—The object of this invention is to obtain a corn-planter that will measure off the distance between the hills in a row. To the frame A, in front of the hopper E, is secured a rigid piece O which, projects on one side into the path of the arms N as they revolve in a vertical plane. The end of each arm N is furnished with a claw or long spike *i*, which enters the ground as

the arm N falls, and thus detains the arm, and as the machine advances over the ground causes the arms M to revolve in the direction of these arrows; this rotates the roller K and discharges the contents of the hole *d* at regular intervals.

Claim.—The described arrangement of mechanism operating independently of the carrying wheels of the machine for the purpose of spacing off the distances between the hills, that is to say, the roller K, the arms M and N, and the piece O, arranged and operating in the manner described for the purpose set forth.

No. 20,639.—Pascal Hatch, of Norwich, Vermont.—*Improvement in Corn-Planters.*—Patent dated June 22, 1858 —This invention consists in the employment of glazed receptacles C C, immediately in the rear of each grain box A, so arranged and operated that the proper number of kernels of corn for each planting charge will first be deposited in said receptacles, and remain there in plain view of the superintendent during the interval between each movement which deposits a charge of corn in the ground.

Claim.—Combining the glazed receptacles C C with grain boxes A A, and with the delivering apparatus connected therewith, when said parts are constructed, arranged, and operated substantially in the manner and for the purpose set forth.

No. 20,781.—Warren Drummond, of Woodbridge, New Jersey.—*Improvement in Corn-Planters.*—Patent dated July 6, 1858.—This machine is designed for planting two rows of corn at a time. It employs two hoppers, two adjustable tubes K L, with covering shares attached, and two covering rollers H H, which are furnished with scrapers I, so that all dirt shall be scraped from their periphery. The dropping of the corn is regulated by a double acting cut-off E e e^1 f f^1.

Claim.—The particular manner described of arranging and combining for united use only the two dropping slides D D, double-acting cut-off plate E e e^1 f f^1, double crank axle H g g, covering rollers H H, combined brace and scraper I, adjustable furrow-opening and closing tubes or shares K L, and secondary hopper C C, for the purpose set forth.

No. 21,180.—Thomas M. Bradgood, of Cleveland, Ind.—*Improvement in Corn-Planters.*—Patent dated August 17, 1858.—This invention consists in so arranging and combining the several parts of the machine that the furrow is opened for the reception of the seed, the seed dropped in specified quantities and at specified distances, and covered with soil to a specified depth by it, thus performing at one operation what is usually effected by several distinct machines in a perfect manner and with less expense and labor.

Claim.—The inventor says: I do not claim, by itself, any individual part of the machine described.

But I *claim* the combination of the truck wheel E, cam wheel H, lever I, and gauge F, when constructed and arranged in relation to

each other and to the seed box C and spout J, as described, and operating as set forth.

No. 21,187.—JOHN S. DAVIS, of Arcadia, Ohio.—*Improvement in Corn-Planters.*—Patent dated August 17, 1858.—When the valves have been moved by the action of the lever R, the spring U brings them back to their original position and closes the orifice through which the seeds pass. Should it be desirable to plant corn in rows both ways across the field, the pins H are all to be removed from the wheel G, and the ground furrowed or marked in one direction. The operator can at pleasure drop the seeds in these furrows, by causing the machine to be drawn across at right angles thereto, and by a sudden movement toward the handle B of the lever V, whose fulcrum is at V^1, the valves P are opened, and the seed deposited in the furrow. By repeating this movement at the moment the tube O passes the furrow, rows are planted in both directions. The adjustable guards M and trucks K move laterally with the hoppers, being connected at the piece A to which the hoppers are secured, so that the hoppers and adjustable guards will always have the same relative position towards each other.

Claim.—The adjustable guards M, truck K, and adjustable hoppers I, in combination with the adjustable connecting rods S S, lever R, and rod Q, the whole combined and operating in the manner described, and for the purpose set forth.

No. 21,287.—HORACE WHITMAN, of Kingsville, Ohio.—*Improvement in Corn-Planters.*—Patent dated August 24, 1858.—The nature of this improvement consists in hinging the adjustable or articulating frame, that carries the teeth and blades to the framework of the machine, and in the manner of elevating and depressing the frame and teeth, in combination with the means employed to distribute the grain at certain and definite distances.

Claim.—The adjustable or articulating frame *c* hinged to the machine and provided with the teeth and blade in combination with the rock-shaft Q, weighted lever T, and lever I, when arranged in relation to a seeding machine, substantially in the manner and for the purposes set forth.

No. 21,393.—FRANKLIN W. WHITE, of Worcester, Mass.—*Improvement in Corn-Planters.*—Patent dated August 31, 1858.—This invention relates to the devices for dropping the corn or potatoes in the furrow opened by the machine; and in connexion therewith the manner of covering the grains, seed, or anything dropped in the furrow.

The inventor says: I *claim*, first, operating the seed slides through the rod *p* and its arm *r* and the hole or holes *s* in the wheel *d*, substantially as described.

I also claim, in combination with a dropping apparatus, and the double mold-boards for opening the furrow, the openings *w* and guides *x* for admitting and directing the earth or soil that is to cover the seed, substantially as described.

No. 21,404.—A. G. Babcock, of Galesburg, Illinois.—*Improvement in Corn-Planters.*—Patent dated September 7, 1858.—The nature of this invention consists in the arrangement of a carriage with two wheels, axletree, and body-frame, with an upright standard on each side of the frame near the front. Across from the top of the standards is a rocking shaft or rod, to which is attached a swinging or vibrating frame.

Claim.—The arrangement and combination of the entire machine, for the purpose of planting corn.

No. 21,583.—Charles Van Houten, of Sunbury, Ohio.—*Improvement in Corn-Planters.*—Patent dated September 21, 1858.—The nature of this invention consists, first, in the employment of the hinged, adjustable, and laterally sliding hopper and share-frames, furnished with a spring stop or catch, in combination with a long transverse pinion, and the propelling axle.

It consists, second, in the combination of the hinged grated apron, with the subsoiling covering shares and furrow opener, whereby the furrow is opened and the dirt thrown to each side, and subsoiling performed, and the soil perfectly pulverized before falling upon the cam, and any desired quantity of soil can be thrown upon the corn.

The inventor says: I *claim*, first, the employment of the hinged, adjustable, and laterally sliding hopper. and share frames E, furnished with a spring stop or catch M, in combination with a long transverse pinion S, and the propelling axle C, substantially as and for the purposes set forth.

Second. The combination of the hinged grated apron J, with the subsoiling covering shares I, and furrow opener H, substantially as and for the purposes set forth.

No. 22,183.—Daniel Ladd, of Dearborn, Michigan.—*Improvement in Corn-Planters.*—Patent dated November 30, 1858.—The nature of this invention consists in planting corn and other seeds by means of a suitable frame mounted on wheels, drawn by a horse, and so constructed by the rotating of the axle that the seed is deposited at equal distances, in furrows made by small plows attached to the under side of the frame, the seed passing from a box (containing hoppers at each end, which is supported on a frame) is deposited in the furrows through tubes reaching nearly to the ground in rear of the plow, and is covered by scrapers attached to the frame in rear of the tubes.

Claim.—The peculiar arrangement of the frame A, shafts B B, axle C with cavities *a a*, wheels D D, box E, plows F F, tubes G G, scrapers H H, and rod I attached to axle C, when made and used identically as described and for the purposes set forth.

No. 19,438.—Daniel B. Neal, of Mt. Gilead, Ohio.—*Improvement in Cotton Seed Planters.*—Patent dated February 23, 1858.—Motion is communicated by the driving wheels to shaft J, and by the shaft to cylinders F F; the cylinders turn in such a manner that their arms or teeth *c c c c* coming together will turn downward and convey the seed from the hopper. The amount of seed which reaches the cylinder

F F is regulated by the bottom C and the slide D. The cover D slides between the two bottoms C and *g*, and serves to cover the aperture in the bottom C, when the bottom is stationed at any given point.

Claim.—The arrangement of the adjustable bottom C and *g*, with the sliding cover D, and cylinders F F, all operated as set forth, and the purpose fully described.

No. 19,874.—James Ross, of Midway, Alabama.—*Improvement in Cotton Seed Planters.*—Patent dated April 6, 1858.—The nature of this invention consists in combining with the discharge plate an agitator, having a combined vertical and oscillating movement, for the purpose of more thoroughly preventing the packing of the cotton seed in the hopper.

Claim.—The combination of the hollow shaft and arms, flanges *l l*, shaft *c*, discharge plate *a*, and mechanism vibrating the same, arranged and operating substantially as and for the purpose set forth.

No. 20,049.—J. T. Donovan and W. J. Fowler, of Seguin, Texas.—*Improvement in Cotton Seed Planters.*—Patent dated April 27, 1858.—The forward movement of the machine causes the rotation of wheel W^1 in the direction of the arrow, the notches of this wheel catching the seed and conveying them to the tooth T. The rotation of shaft B produces the rotation of the agitating shaft C, the arms of which loosen the seed and prevent packing, while the depending brushes *b* insure the filling of the notches *n* of wheel W^1, as the seed will be thus prevented from arching over the wheel W^1.

Claim.—The combination of notched wheel W, shafts C, arms *a*, and depending brushes *b* thereof, with the circular hopper, the whole arranged for joint operation as shown and described.

No. 20,432.—John S. Huggins and Rowland Chapman, of Darlington district, S. C.—*Improvement in Cotton Seed Planters.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The arrangement of the frame A and its furrow opener B, ring C, handles D, braces F, hook G, brush H, and cover I, with the cylinder K, and its receivers N; discharge aperture *h*, cavity *f*, and fender O, the whole being constructed for operation conjointly in the manner and for the purpose set forth.

No. 20,572.—Arnold McDonald, of Salem, Miss.—*Improvement in Cotton Seed Planters.*—Patent dated June 15, 1858.—When the machine is in motion the roller A, turning on the ground, gives motion to the cog-wheel B on its axle, which, turning into the cog-wheel C, gives motion to the shaft T, and its grooved seed distributing wheel D and stirrers *b b b b*. The stirrers *b b b b* keep the seed in constant agitation, and cause them to fill the groove *i i* on the seed distributing wheel D, which, in passing through the opening *x x* in the bottom of the hopper E, deposits them in drills.

Claim.—The combination of shaft T, its grooved seed distributing wheel D, and stirrers *b b b b*, with hopper E, the whole being con-

structed, arranged, and operating in the manner and for the purpose described.

No. 20,694.—Edward T. Bostrum, of Newnan, Ga.—*Improvement in Cotton Seed Planters.*—Patent dated June 29, 1858.—This invention consists in a novel distributing device, whereby a proper and uniform discharge of seed from the hopper is insured, and also in a peculiar arrangement of furrow share, covering blades, cleaners, and gauges. These are provided so that the furrows that receive the seed are made of a uniform depth, the seed properly covered, and all weeds, sods, &c., prevented from entering the furrows while they are being formed, and the seed covered.

The inventor says: I do not claim separately any of the parts, irrespective of the arrangement shown.

But I *claim* the combination of the screw F and shaft E, placed within the seed box D, and provided with beaters *a*, the whole being arranged to operate as and for the purpose set forth.

No. 21,308.—Horatio P. Allen, of Bowling Green, Ky.—*Improvement in Cotton Seed Planters.*—Patent dated August 31, 1858.—This invention consists in the tangentially set lifting shelves when slotted and used on the inner circumference of a rotating hopper E, which has a continuous discharge passage, whereby the seed are lifted and held till they are brought to the front and rear parts of the hopper, and thus their discharge insured at these two points at the same time; the hook I drawing one portion of the seed off the left shelf and out at the rear of the hopper, while another portion is escaping at the front by their own gravity, owing to the shelves when at the front of the rotating hopper becoming inverted and compelling the seed to fall down and discharge through the central space of the hopper.

The inventor says: I *claim*, first, the combination of the hook, when arranged to reciprocate, with rotating hopper, substantially as and for the purposes set forth.

Second. The tangentially set shelves when slotted and used on the inner circumference of a rotating hopper, which has a continuous discharge passage G, as specified and for the purpose set forth.

No. 19,329.—Joshua Fairbank and Edwin C. Durfee, of Leon, New York, administrators of John B. Fairbank, deceased.—*Improvement in Hand Corn Planters.*—Patent dated February 9, 1858.—The nature of this invention consists in so constructing the parts of the machine as to make it capable of depositing the seed in the ground by pressing it out at the side of the rectangular tube B that carries it into the soil. The seed hopper is located in a central position, and the corn is conducted from it through the inclined tubes J J to the depositing cups R.

Claim.—The particular improvements which constitute the said invention, and which are claimed as having been originally and first invented by the said John B. Fairbank, are—

First. The adjustable measuring cups B, with a movable bottom

operated by the upward motion of the cups relatively to other parts, as specified.

Second. The thruster S, and Slide V, or their equivalents, when used for giving the side pressure to the corn, in the manner and for the purposes above stated.

No. 19,540.—H. F. Batcheller, of Sterling, Illinois.—*Improvement in Hand Corn Planters.*—Patent dated March 9, 1858.—This invention consists in the employment or use of a slide and seed distributing roller B, arranged relatively with a seed box A, whereby the slide D is made to rotate the seed distributing roller, and also to force the seed into the earth. An adjustable gauge board C is also employed attached to the device, so that it may easily be removed when necessary.

The inventor says: I do not claim the seed distributing roller B, for that is an old device and in common use on many kinds of seed drills, nor do I claim the slide D, for that is also in common use in hand planters.

But I *claim* the combination of the pressure slide D and seed distributing roller B, arranged as shown and placed relatively with the seed box A, so as to operate substantially as and for the purpose set forth.

No. 19,833.—Daniel G. Coppin, of Cincinnati, Ohio.—*Improvement in Hand Corn Planters.*—Patent dated April 6, 1858.—The nature of this improvement consists in the arrangement of devices employed for making a suitable receptacle in the ground for the corn, so that it can be covered with a proper depth of dirt without pressing the dirt over the grain; also, dropping and scattering the corn as it is discharged from the machine to prevent it from rotting by lying in a heap and give it a chance for growing properly.

Claim.—The combined arrangement of the concave plate K, lever *h*, and seed rod f^1, arranged with the pipes *d* and *g*, and spring J, all constructed and operated as represented, for purposes mentioned in the specification.

No. 19,054.—H. Wainright and S. T. Williams, of Farmingdale, New Jersey.—*Improvement in Potato Planters.*—Patent dated January 5, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We do not claim the employment of a fork for drawing potatoes from a hopper in planting, being aware that such has been before used.

But we *claim* the combination of a tripping fork H, with a reciprocating trough I, so that the fork will, by a uniform movement, alternately take a potato from the trough and deposit it in the drill tube, as specified.

We also claim the arrangement of the inclined reciprocating troughs I I, with revolved winged rollers *i i i*, operating as described, in combination with the hopper L, provided with removable bottoms *m m*, whereby the potatoes are supplied as fast as required to the troughs, as described.

We also claim the wedge-like projections *h h*, in combination with the reciprocating trough, in the manner and for the purpose set forth.

No. 19,178.—John R. Albertson, of Allegheny, Pa.—*Improvement in Potato Planters.*—Patent dated January 26, 1858.—The nature of this invention consists in furnishing the front end of the hopper *h* with rods *r*, so arranged as to allow the fingers on the belt *z* to pass between them; said rods being used for the purpose of preventing the seed from rubbing against the belt, thereby avoiding friction, wearing, and tearing of the belt. It also consists in the arrangement of the belt with the fingers *f*, the pulleys *p*, the wheels *w*, and the depositing tube *n*; and there held by the fingers *f*, until it is the proper time to deposit the seed.

Claim.—The arrangement of belt *z* and fingers *f*, with rods *r*, and hopper *h*, in the manner and for the purpose described.

No. 19,294.—Edward E. Hawley, of New Haven, Conn.—*Improvement in Potato Planters.*—Patent dated February 9, 1858.—The operation of the machine is as follows: The hopper F being filled with potatoes, or pieces of them, and the hopper H with fertilizing material, the machine is moved by a team attached to its pole or tongue, causing the planting wheels to rotate. The potato or pieces of them are taken up by the pockets *e* in the periphery of the planting wheel E, as soon as the pockets pass the point where the two planting wheels come in contact with each other, and are carried around the knife G, cutting off any portions projecting from the pockets beyond the line of the periphery, and dropped from the pockets into the mouth of the conductor L, from whence they fall to the ground into the trench prepared for them by the cultivator M.

The inventor says: I *claim* first, the combinatiou of the planting wheel E, with the knife or cutting blade G to effect the purpose named, as set forth.

Second. The combination of the planting wheels E E^1, with the hopper F, when arranged in relation to each other, in the manner and for the purposes described.

No. 20,001.—F. S. McWhorter, of Smyrna, Del.—*Improvement in Potato Planters.*—Patent dated April 20, 1858,—This machine consists of an endless chain of conveyors E, which continuously receive the pieces of potato from a side hopper I, and carry them to a planting tube C, which conducts them into the ground.

Claim.—The employment of a transverse hopper I, having an inclined bottom, and arranged on one side of the endless chain conveyor C, in combination with a longitudinal guide and retainiug box G H, which has its rear portion inclined, and its front portion horizontal, and a brush K, which brushes off any surplus pieces of potatoes which may collect in the cells or chambers of the endless conveyor, substantially as and for the purposes set forth.

No. 19,010.—Henry F. Baker, of Centreville, Ind.—*Improvement in Seed Planters.*—Patent dated January 5, 1858.—In the illustra-

tions A represents a revolving shaft, arranged in rear of the drill teeth, being supported by the bearings D E of the drill frame. B B are the blades or clearers, arranged radially on the shaft A. These clearers are made with a sharp edge, and with a slight hook form at their lower end, and are of a sufficient length to pass a short distance below the points of the teeth. C is a pinion on the end of the clearer shaft. The heaver D is adjustable, so that the pinion may be thrown in and out of gear. The adjustment is effected by a curved slot G, and adjusting lever I and stop bar J.

The inventor says: I do not claim broadly the use of clearers, in combination with seed drill teeth, as this is common.

But I *claim* the arrangement of hook-pointed edged blades, or other suitable clearers, in such relation to the points of the drill teeth to one another on the shaft, that in the revolution of the shaft they alternately come on opposite sides of the teeth, and pass down slightly below the points of the same, substantially as and for the purposes set forth.

No. 19,026.—M. J. Hunt and J. H. Haines, of Rising Sun, Maryland.—*Improvement in Seed Planters.*—Patent dated January 5, 1858.—The nature of this invention relates to the construction and operation of seed slides so as to keep the grain in motion and more certainly ensure regular planting. The peculiar construction of the cross-head that operates said slides, so that a single one or a pair may be used without cramping the parts or causing them to work hard.

Claim.—First. A vibrating slide formed with an offset *d*, substantially in the manner and for the purpose described.

Second. Giving to said slide a vibrating motion by means of cross-heads G, having a third arm H extending from it, substantially in the manner and for the purpose set forth.

No. 19,122.—Samuel Baker, of Mount Pulaski, Illinois.—*Improvement in Seed Planters.*—Patent dated January 19, 1858. The claim and engravings explain the nature of this invention.

The inventor says: I do not claim, broadly, and irrespective of the arrangement shown, the reciprocating bar W, provided with the recess *k*, and working vertically through the seed-box X, for distributing the seed, for this is a well known device, and is common to many seeding machines.

But I *claim* the reciprocating bar W, provided with the recess *k*, when operated by means of the working beam F, link *a*, rod *b*, and crank *c*, on the adjustable shaft G, connected with the lever L, substantially as shown, for the purposes specified.

No. 19,126.—John A Brown, of Richmond, Indiana.—*Improvement in Seed Planters.*—Patent dated January 19, 1858.—In operating this machine, as the seed-boxes revolve the toppets c c^1 come in contact with the arms E E; this moves the slides to the position shown at the bottom of figure 3, and allows the seed to fall upon the valves *d d*. The levers of these valves now come in contact with the horizontal parts *e e*, opening the valves and discharging the seed to the

earth. The other set of tubes follow in a similar manner, and thus they operate alternately until the required labor is performed.

The inventor says: I am aware that corn planters are in use in which the seed-boxes are attached directly, either to the spokes or hubs of the wheels. My invention, however, is quite distinct from these, inasmuch as in mine the boxes are attached to the axle, from which one wheel may be loose, and free to move within the seed-boxes, as shown.

But I *claim* the arrangement of seed-boxes B B^1 upon axle *a*, in combination with the distributing and discharging devices shown, said devices being operated by the arms E E, as set forth.

No. 19,222.—J. D. Willoughby, of Pleasant Hall, Pennsylvania.—*Improvement in Seed Planters.*—Patent dated January 26, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first. The rubber spring *u*, in combination with the chair D, screw T, and nuts *v v*, to hold the joint *c* in any desired position with any desired firmness, for the purpose of making bar S a flexible and adjustable brace for grain drill-tubes or shovels, which can be graduated to bear different degrees of resistance, and to hold the tube G^1 at any desired angle, to regulate the depth of the tube in the soil when the seed is being planted.

Second. The combination of the rod *g* with the inclined standard D on the pole, for the purpose of cutting off the discharge of the seed, and elevating the seed-tubes and cleaners, substantially as described.

No. 19,274.—Joseph H. Wiggin, of Boston, Mass.—*Improvement in Seed Planters.*—Patent dated February 2, 1858.—This invention consists in the arrangement of the planting cylinder, and the reciprocating toothed bar operated by the rear wheel, which operates in such a manner that every forward movement of the bar gives to the seeding cylinder half a rotation on its axis, charges the seed boxes with grain from the hopper, and discharges the same into the hill, and that every return movement of the bar repeats the same operation.

Claim.—The arrangement of the seeding cylinder *h* h^1, and toothed bar *b* b^1, for planting seed automatically, in the manner and for the purpose set forth.

No. 19,456.—Daniel L. Tilton, of Mount Carmel, Ill.—*Improvement in Seed Planters.*—Patent dated February 23, 1858.—C is a seed hopper, one side of which consists of a rocking block D whose fulcrum *d* rests in a bracket E. The vibration of the block D is effected by a rod F extending forward to circle of tabs *b* on the wheel B, and confined at its front end by a stirrup G. H is a swing valve, which, being raised by means of a cord I, closes the ventage in seed hopper C at any time desired.

Claim.—The arrangement of the vibrating block D, adjustable bracket E, with or without the valve H, in the described combination with the hopper C, for the purposes set forth.

No. 19,404.—L. A. Butts, of Cuba, N. Y.—*Improvement in Seed Planters.*—Patent dated February 23, 1858.—This invention consists

in connecting a seed-distributing device with a covering device in such a way that both will be operated simultaneously, and the seed not only planted and covered at the same time with one and the same machine, but also planted in readily distinguishable hills.

The inventor says: I am aware that covering holes have been applied to seed-planting machines; and I am also aware that various plans have been devised for connecting and disconnecting, or throwing in and out of gear, with the driving wheels, the distributing devices of such machines.

I therefore do not claim, broadly, and irrespective of construction and arrangement, such devices.

But I *claim* the arrangement of the hoes V, rods *h*, shafts K M, plungers I, and connecting rods U N, substantially as and for the purposes set forth.

No. 19,579.—Joseph Redhead, of Woodville, Miss.—*Improvement in Seed Planters.*—Patent dated March 9, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the seed distributor G hung upon hinged arms, and agitated as described, for the purpose of sifting the seeds through the opening or openings in its bottom, as set forth.

Second. I claim a supply seed box C, rocking or oscillating on its supporters, as an auxiliary in furnishing the distributor with seeds without so overcharging said distributor as to cause the seed to choke or clog therein, substantially as described.

No. 19,549.—William C. Doss, of Texana, Texas.—*Improvement in Seed Planters.*—Patent dated March 9, 1858.—The nature of this invention consists of a cylinder F made to revolve at the bottom of a hopper E, the cylinder being provided with fingers G about an inch in length, by which cotton seed are deposited regularly through a tube at the bottom of the colter M, and behind it, and by means of cups H.

Claim.—The cylinder F provided with the cups H, and fingers G, in combination with the cylinder J armed with obliquely set paddles K, arranged and operated in the manner and for the purpose specified.

No. 19,818.—Samuel Thompson, of Hopedale, Ohio, assignee to himself and A. W. Paggart, of said Hopedale.—*Improvement in Seed Planters.*—Patent dated March 30, 1858.—This invention consists in having a series of cutters D attached to the periphery of wheels C, which are placed in a framing A, and combined with reciprocating seed-slides F in such a way that the cutters will form holes in the sod to receive the seed dropped by the action of the slides.

The inventor says: I do not claim separately the reciprocating slides F for distributing the seed, for they are a well known device and in common use.

But I *claim* the cutters D attached to the wheel C, of the framing A, in combination with the seed-distributing slides F, operated by the cams *e* attached to the cutter-wheels C, substantially as and for the purpose set forth.

No. 19,953.—Thomas Russell, of Waldoborough, Maine.—*Improvement in Seed Planters.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* arranging the arm *b* of the rocker-shaft *c*, so as to extend and operate in the space I, between the wheels as described, in order that such arm may serve to clear the said space between the wheels from earth which may adhere or be taken up therein.

I also claim in connexion with a hopper made removable from the frame as specified, applying the movable brush O to the dropper or valve K, by means of an arm *u* extending down from the brush-shaft and into the dropper K, in the manner described, the same being for the purposes specified.

No. 20,158.—James J. Johnston, of Allegheny, Pa.—*Improvement in Seed Planters.*—Patent dated May 4, 1858.—The nature of this invention consists in an arrangement for lifting up and lowering down the share of the planter, and cutting off the seed from the seed-chamber, and also in an arrangement of flexible bottoms in the seed-chambers.

The inventor says: I *claim*, first, the arrangement of the flexible bottoms *b*, springs *c*, rod *d*, and division piece *e*, in the seed-chambers *a*, as herein described and for the purpose set forth.

Second. The arrangement of the depositing tube *g*, with lugs *t*, share *h*, rod *i*, lever *j*, and sliding gate *k*, as described and for the purpose set forth.

No. 20,143.—James Charlton, of Allegheny, Pa.—*Improvement in Seed Planters.*—Patent dated May 4, 1858.—The nature of this invention consists in an arrangement of enlarging or contracting the size of the seed-chambers, so that they may be made to suit the various kinds and sizes of seed. Also in an arrangement for regulating the depth of the furrow made by the share or tooth of the planter.

The inventor says: I *claim*, first, the rings *y*, with the lugs *b*, projecting studs *t*, and heads *c*, in connexion with the strips *x*, and cylinder *g*, for the purposes of enlarging or contracting the seed-chambers, and agitating the seed in the hopper.

Second. The arrangement of the flexible rods S, axle *k*, yoke *j*, lever *p*, and strip *r*, with notches 1 and 2, as described and for the purpose set forth.

No. 20,440.—Elmon Parker, of Baltimore, Md.—*Improvement in Seed Planters.*—Patent dated June 1, 1858.—The cams J *m* are so arranged that when the wheel turns, and as quick as the seed drops, the cam will let the rod *k* go by the spring L, the tube and rod will spring forward, off of the seed, and let the seed lie where it is dropped. Inside of the other wheel is the cams *m*, from which is run rod *n*, as far forward as the dropping tube *i*, turned up over the beam, and the end turned down so that it will go through the hole of the slide when the hole is out over the dropping tube. When the cam lets the rod go, the forward end will spring down, by means of the spring *p*, and knock out any seed that may be in the hole.

Claim.—The arrangement of rods *n k*, and their springs *p* L, with the cams J *m*, the whole being constructed substantially as and for the purpose set forth.

No. 20,651.—Joseph McKown, of Gardstown, Va.—*Improvement in Seed Planters.*—Patent dated June 22, 1858.—With this seed planter the seeds are drawn from the hopper B continuously by two alternately acting slides F G, and dropped into the seed tubes, which conduct it into the soil. The seeds, as fast as dropped, are covered by means of shares and a roller.

Claim.—The arrangement of two or more alternately operating slides F G, cut-off device H I, crank shafts J N O, intermediate gearing L M, adjustable standards J^1, and extension connecting rods K K K^1 K^1, substantially in the manner and for the purpose described.

No. 20,749.—Augustus Wales, of Pontiac, Ill.—*Improvement in Seed Planters.*—Patent dated June 29, 1858.—A is the frame of the machine, C, a cross-piece in the frame, on which are erected the uprights B B, *f* is the driving wheel and is provided with two cranks *g*, one on each side, and to which are secured the pitmans *h h*. These pitmans connect with a lever, *i* i^1 being an extension of said lever. D is a roller which has its bearings in the uprights B B, through which the levers pass. Lever i^1 connects with a gate E.

Claim.—The arrangement of the two cranks *g* to the wheel *f*, the pitmans *h h*, the levers *i i* i^1 i^1, and rollers D D, with gates E E provided with slides *c c c*, all being constructed and operated in the manner set forth and for the purpose described.

No. 20,738.—George Smith and A. G. Perry, of Clyde, Ohio.—*Improvement in Seed Planters.*—Patent dated June 29, 1858.—This invention consists principally in the construction, combination, and arrangement of the several parts of a hill and row corn planter, with a cultivator, so as to be readily adjusted and adapted to purposes, first, of a seed drill; secondly, a hill and row planter; thirdly, a ridge plough; fourthly, a cultivator, hilling plough, and shovel plough.

Claim.—The shaft O and spring P, adjustable spring box Y, pulley H, lever L, seeding cylinder R, hopper S, and the cultivator, as described when the whole are constructed and arranged for operation conjointly, in the manner and for the purposes set forth.

No. 20,709.—Richard B. Ground, of Marine Town, Illinois.—*Improvement in Seed Planters.*—Patent dated June 29, 1858.—The frame work consists of three individual frames, whose side beams *m n o* are all combined with and freely play upon the journals of a single shaft *q*. The side beams *n n* of the intermediate frame play freely between the side beams *m m* and *o o*, and the forward ends of the beams *n n* project a short distance forward of the shaft *q*, and are connected to each other by the cross-bar *r*. The grain boxes *t t*, the channeling ploughs *y y*, and the apparatus for depositing the seeds or kernels in the soil are all combined with the sides of the innermost frame of the planter.

Claim.—The arrangement of the respective parts of the planting apparatus with the adjustable three-fold frame work of my improved corn planter, substantially in the manner and for the purposes set forth.

No. 21,034.—J. H. Thomas and P. P. Mast, of Springfield, Ohio.—*Improvement in Seed Planters.*—Patent dated July 27, 1858.—By the first feature of this invention the agitation, lifting, and certain deposit of grain in equal quantities is accomplished; also a discharge of the same into the drill tubes. And by the second feature grass seed can be planted at the same time that wheat is planted, in the rear of the drill tubes, instead of (as usual) in front of the same, and thus the disadvantage of having the grass seed planted in the deep furrows with the wheat is avoided, and said seed can be planted on the surface, as it should be in order to spring up speedily.

The inventors say: We *claim*, first, the use of flaring inclined, gutter-shaped arms G^3 G^3 on the shaft, which is arranged in the hopper G, and lift and agitate the grain, in combination with the peculiar construction of distributing slide described, substantially as and for the purposes set forth.

Second. The employment of the above wheat hopper G, and its attachments, as described and shown, in combination with a grass seed hopper H, and the flaring seed conductors H^1, when said grass seed hopper and flaring conductors or spreaders H^1 are arranged behind the wheat hopper G, and so located that the back board *a* of the wheat hopper shall completely overhang the same, substantially as and for the purposes set forth.

No. 21,102.—James D. Willoughby, of Carlisle, Pennsylvania.—*Improvement in Seed Planters.*—Patent dated August 3, 1858.—In operating this machine, motion being given to the shafts by means of the cog wheel A and the pinions D and E, so that as the rubber rollers F turn they revolve toward each other. The seed being placed in the hopper falls between the rollers, and is carried out between them. As the rollers fit closely together the seed, in order to pass down, must indent the rollers, and it is thus pressed tightly as it passes through, but in no way injured, the slide being so arranged that more or less of the rollers may be exposed to the seed.

Claim.—The arrangement of the rollers F F, placed horizontally with the slide H, as constructed, for regulating the discharge of the seed, and the frame J for keeping said roller in place, and preventing the lateral discharge of seed, as is fully set forth.

No. 21,112.—Addison Burdan, of Macon, Michigan.—*Improvement in Seed Planters.*—Patent dated August 10, 1858.—As the machine is drawn along the driving wheels B give a rotary motion to the main shaft C and bevel wheel F; that in turn gives a rotary motion to the pinion G, shaft H, and crank I, which in turn give reciprocating motion to the piece L, by means of connexion J; said connexion being pivoted to the piece L at K. When the piece L is thrown to the left of the connexion J, the adjustable tubes 3 are thrown directly under

the hoppers O, from whence they receive their seed through the holes in the top plate N. The seed in the hoppers is divided from the seed in the tubes by means of the brushes 1, as the piece L moves to the right, as seen in the engraving.

Claim.—The arrangement of the reciprocating piece L, adjustable tubes 3, stationary piece M, and top plate N, with hoppers O, the whole being constructed for operating conjointly as set forth.

No. 21,127.—H. C. Fairchild, of Brooklyn, Pa.—*Improvement in Seed Planters.*—Patent dated August 10, 1858.—This invention consists in having the lower end of the seed box fitted with a stationary cylinder, to which a plunger and case are attached, the seed box being allowed to rotate, and by its movement distributing the seed and actuating the plunger.

The inventor says: I am aware that seed distributing devices formed of movable and stationary plates or slides, and a cut-off similar to the device herein described, have been used, but I am not aware that a distributing device has been arranged with a rotating or semi-rotating seed box and plunger, so that the distributing of the seed and the operating of the plunger could be effected by rotating the seed box. I do not claim, therefore, broadly and separately, the distributing device, but

I *claim* the rotating or semi-rotating seed box A, provided with the cylindrical case B, fitted within the case C, in connexion with the plunger E, connected with and operated by the movement of case B, as shown, the plunger case D attached to case C, and the seed distributing device formed of the perforated bottoms *d f* of the cases B C, and the cut-off I, the whole being arranged for joint action, substantially as and for the purpose set forth.

No. 21,137.—E. W. Kimball, of Ottawa, Illinois.—*Improvement in SeedP lanters.*—Patent dated August 10, 1858.—This invention consists in placing a reciprocating hand-slide within a proper case, and having an endless band, provided with a seed-cup attached thereto, the slide dividing the case into two equal parts, and having an opening made in it to allow the seed to pass through, the above parts being used in connexion with a spring plate and rest plate, or guide.

Claim.—The slide B, placed within the box or case A, perforated at D, and provided with the endless band *c*, and the seed-cap D attached, in connexion with the elastic or yielding plate *e* and rest plate or guide *f*, placed at the lower end of the box or case. It being understood that I do not claim separately any of the parts, but the whole combined and arranged, as and for the purpose set forth.

No. 21,217.—Jonathan H. Rose, of Versailles, Illinois.—*Improvement in Seed Planters.*—Patent dated August 17, 1858.—This invention consists in a novel arrangement and adaptation of a seed distributing device to a plough, whereby the operator, while guiding the plough, may actuate at will and with facility the seed distributing device, the same, owing to its peculiar construction, being capable of

ready adjustment, so that the discharge of seed may be regulated as occasion may require.

The inventor says: I do not claim broadly the parts pertaining to the shovel-plough, nor do I claim the covering shares F F; neither do I claim broadly the employment of an adjustable slide to regulate the amount of seed to be planted at each dropping, for slides have been arranged in various ways for such purpose. I am not aware, however, that a seed-slide and adjusting bar have been arranged, as shown, so as to form the exceedingly simple device described, to wit: a supplemental seed chamber and adjustable seed-slide combined.

I *claim* the seed distributing device formed of the slide, bent or lowered as shown, and the adjustable bar G fitted in the seed-box E, the whole being arranged and connected with the plough for joint operation, substantially as and for the purpose set forth.

No. 21,397.—W. A. Mahaffy, of Carimona, Minnesota, assignor to John Greek, of Evansville, Indiana.—*Improvement in Seed Planters.*—Patent dated August 31, 1858.—This invention relates to an improved seed-distributing device, whereby the seed is discharged in measured quantities from the seed-box, and conveyed from thence to the conveying tubes at the bottom, of which the furrow teeth are formed, the seed being deposited in the furrows in quantities precisely the same as they are discharged from the seed-box.

The inventor says: I am aware that the reciprocating perforated seed-slides have been previously used; and I am also aware that wheels or cylinders, provided with seed cells, have also been used for distributing seed; but I am not aware that reciprocating slides have been used in connexion with rotating cylinders, provided with seed cells and pins to serve as cams or tappets to actuate the slides, and also as conveyors to carry the seed to the conveying tubes. I do not claim, therefore, separately and broadly, the seed-slides, nor the wheels provided with seed-cells.

But I *claim* the seed slides *b*, in combination with the wheels or cylinders E, arranged for joint action, substantially as and for the purpose set forth.

No. 21,440.—Benjamin Owen, of Dayton, Ohio.—*Improvement in Seed Planters.*—Patent dated September 7, 1858.—This invention consists in a covering device arranged so that the seed may be covered with a proper quantity of earth by a simple arrangement of means. It is more especially adapted to Indian corn or maize, but may be used for planting other kinds of seeds in hills.

Claim.—Operating the arms S, and hoe T, by means of the disks N R Q, provided with teeth or spurs, and arranged as and for the purpose set forth.

No. 22,156.—J. F. Beckwith and A. G. Gage, of Alabama, N. Y.—*Improvement in Seed Planters.*—Patent dated November 30, 1858.—This invention consists in arranging the lever for raising the marking wheel, so that the axle of the wheel forms the fulcrum of the lever, by which means the power is applied directly to the axle of the

marking wheel without the aid of intermediate connexions. Also in arranging the crank on the marking wheel axle in connexion with the arrangement of the markers, so that the position of all the measuring recesses in the feeder is indicated to the driver.

The inventors say: first, we *claim* the combination of the raising lever L, when arranged as decribed, with the marking wheel for the purposes set forth.

Second. The combination of the cranks on the axle of the marking wheel when arranged as described with the markers, whereby the exact position of the measuring recesses in the seed deliverer are indicated to the driver.

No. 22,228.—Jarvis Case, of Bloomington, Ill.—*Improvement in Seed Planters.*—Patent dated December 7, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, dispensing with side rails and connecting the front and rear truck by the driver's seat, hinged to the front truck and rigidly secured to the rear one, substantially as described.

Second. I claim the so arranging of a reversible marker upon the front truck of the machine, that when planting the runner shall not touch the marker arm; but when said front truck is raised up to turn the machine around, the runner shall catch and raise up and hold up said marker, for the purpose and substantially as described.

Third. I claim in the construction of the runner the hollowing out for the marker arm, the forming of the seed ducts in the sides of the runners, and so inclining the straight edge thereof as that its heel shall be the lowest point, all as described, and for the purpose specified.

No. 22,438.—F. M. Marshall, of Seguin, Texas.—*Improvement in Seed Planters.*—Patent dated December 28, 1858.—This invention consists of a beam A, four and a half feet in length. At one and three-fourths foot from the front is attached underneath a gauge wheel B nine inches in diameter. The object of this wheel is to regulate the depth of the furrow made by the plough, said wheel being movable, and being raised or lowered by the screw and tap connecting it with the beam.

Claim.—The arrangement of perforated plates A^1 and B, beam A, gauge wheel B, bull tongue plough S, roller F, crank H, arm D, and handles K K, the whole being constructed for joint operation as set forth and described.

No. 20,014.—Samuel Woodruff, of Sparta, N. J.—*Improvement in Seed Planting Ploughs.*—Patent dated April 20, 1858.—This invention consists in the employment of a small box attached to the back of the hoe, provided with a valve and plunger, and used in connexion with a seed receptacle or sack, which is slung around the shoulders of the operator and made to communicate with the distributing device by a flexible tube.

The inventor says: I am aware that seed distributing devices have been attached to hoes, and arranged in various ways, in order that the

seed may be distributed, the holes made to receive it, and the seed covered at one operation, and I therefore do not claim separately any of the parts shown and described.

But I *claim* the box B, provided with the valve C, and plunger D, attached to the hoe, and used in connexion with the sack or receptacle G, placed on the operator, and communicating with the box B by means of the flexible tube E, the whole being arranged substantially as and for the purpose set forth.

No. 19,322.—Thomas B. Whyte, of Greenwich, N. Y.—*Improvement in Machines for Planting Potatoes.*—Patent dated February 9, 1858.—A little behind the centre of the frame X and upon it stands the hopper L, with its lower receptacle L^2. The bottom of L^2 is closed with a slide F, which is a cutting or slicing apparatus. Against the rear of the hopper lies a board V, which is regulated by the hand-screw *x*.

Claim.—The arrangement of slide E, knife *e*, and adjustable board V, with hoppers L and L^2, in manner and form and for the purpose set forth.

No. 19,869.—Jesse W. Pelletreau, of East Moriches, N. Y.—*Improvement in Machines for Planting Potatoes.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The general arrangement of the hopper K, and automatic dropping apparatus, consisting of the spouts *l*, clappers *m*, wheel *n*, and blocks 9 9, in connexion with the opening and covering ploughs, substantially as specified, whereby the potatoes or pieces of potato, being fed into the machine by hand, are not injured, and all the advantages of hand planting are attained without the laborious work connected therewith, as specified.

No. 19,163.—Thomas Thompson, of Thompsonville, N. C.—*Improvement in Ploughs.*—Patent dated January 19, 1858.—B is the beam curving downward and secured to the land-side by the bolts *a a*. L is the land-side, cast with a face-piece or standard *f*, which is secured to the beam by a bolt *b*, the mould-board M being secured to this face-piece. The land-side has a small depending ear *e* passing inside the bar C, and secured thereto by a bolt *c*. The share is drawn tight against the mould-board and land-side by the rod *r* passing up inside of the face-piece or standard and secured to the top of the beam. H H are handles, curved at their lower extremities, and made to embrace the curve of the stock.

The inventor says: I make no claim to the curved beam, nor do I claim an adjustment or handles for regulating the depth of ploughing.

But I *claim* the curved beam B and land-side L, having the depending ear *e* and upright standard *f* secured to the beam as described, in combination with the opposite curved adjustable handles H H, as constituting an improved construction of plough.

No. 19,125.—Samuel R. Borum and William McClean of Norfolk, Va.—*Improvement in Ploughs.*—Patent dated January 19, 1858.—D represents a standard which transversely is of V form. This standard gradually expands from its upper to its lower end so as to form mould-

boards; shares *c* are attached to the lower ends of the mould-boards, one to each. The standard is constructed of cast-iron, and its upper end is secured to the beam A.

The inventors say: We do not claim the invention of double mould-boards, for we know they are old.

But to the best of our knowledge and belief, it is new to make the standard transversely of V-shaped form, gradually expanding from the upper to the lower part, the said peculiarly-shaped standard being combined with the horn or projection *b* of the land-side C^1, in the manner set forth.

We *claim* the arrangement of the peculiarly-formed V-shaped standard D, with the horn or projection *b* of the land-side C^1 and its wings B^1, as shown and described.

No. 19,179.—Joseph Banks, of Dadeville, Alabama.—*Improvement in Ploughs.*—Patent dated January 26th, 1858.—Fig. 1 shows the form of iron bars F G and H, the hind bar F, being straight, and the two forward bars G H, being curved. The upper ends of these bars are secured to the under side of the beam A, respectively by bolts *g h i*. The two rear bars F G, are united by a rivet near their lower ends, which are sharpened as shown. The lower end of the front bar H, terminates at some distance above the other two bars, and being blunt serves as a shoulder for the rear end of the point L, to bear against. A rivet passes through all three of the bars near the lower end of the front bar H.

Claim.—The combination of the triple-branched colter I, bars F G H, and point L, constructed and arranged as specified.

No. 19,262.—Joseph O. Ramage, of La Fayette, Ala.—*Improvement in Ploughs.*—Patent dated February 2, 1858.—This improvement consists in a peculiar manner of securing the plough-point to the foot piece. H is the handle, B the beam, curving so as to form the stock; to the lower end of the stock is attached the foot piece *a* by a pin *b* upon which it can turn, S is a sub-soil point, having a slot *e* in rear, R is the root-cutter having a point F, which enters a cavity in the stock. The sub-soil point is laid upon the face of the foot piece and allowed to project over the point any desired distance, bolt *h* of the root-cutter then passes through slot *e* and opening *i* between the stock and foot piece. Nut *n* is then tightened and secures the point S to the foot piece; by loosening nut *n* the pressure of the lower face of the root-cutter R is removed.

Claim.—Connecting the piece R, with the stock by point and cavity as shown at *g*, and passing a bolt on the bottom of the same through opening *i*, and the slot of the plough-point, whereby the said piece is made to perform the functions of root-cutter, brace, and securer of the plough-point, substantially as set forth.

No. 19,321.—George Watt, of Richmond, Va.—*Improvement in Ploughs.*—Patent dated February 9, 1858.—The nature of this invention will be understood by examining the claim and engravings.

The inventor says: I do not claim of itself the inclination of the

land-side towards the mould-board, for the purpose of leaving soil overhanging the furrow, as such device broadly considered is not new.

But I *claim* constructing mould-board and land-side of cylindrical surfaces of equal diameters, intersecting along the cutting-edge of the plough, in combination with the curved standard S, the whole being constructed substantially as and for the purposes set forth.

No. 19,388.—Marshall Turley, of Galesburgh, Ill.—*Improvement in Ploughs.*—Patent dated February 16, 1858.—This invention consists in the device employed for cutting the stocks, weeds, &c., for gathering them in rows, so as to be covered by the furrow-slice, and the adjustment of the plough in making a wider or narrower furrow. A is the larger and B the smaller supporting wheel, both arranged on an axle C, so that the former can run in the furrow previously turned and the latter on the land. D is the tongue, by which the plongh is guided. It is placed in or near the line of resistance of the plough, which may be on one side of the centre of the axle C, a brace E extends from the tongue to the axle of the plough, to cause it to follow the tongue.

The inventor says: I *claim* 1st. The combination of the beams, plough-shank, lever, and brace or adjusting rod, arranged behind the axle, substantially as set forth.

2d. The combination of the wheel B, for holding, with the cutter *m*, for cutting the stalks, substantially as described.

3d. I claim the combination of the weed-gatherer *n*, with the plough or ploughs, when arranged and operating as set forth.

No. 19,391.—William W. Van Loan, of Catskill, N. Y.—*Improvement in Ploughs.*—Patent dated February 16, 1858.—The cutter or blade *a* is fixed firmly to the land-side, and is fixed at the depth which will be required by different soils.

The inventor says: I am aware that pulverizing blades have been attached to the mould-board of ploughs and also placed in rear of cultivators; but neither of these can perform the function of my under-cutters, and I lay no claim to such devices.

But I *claim* the attachment of one or more horizontal cutters to the land-side of the plough, whereby the land is cut horizontally below the surface, so that it may be turned over by the mould-board during the succeeding cut with greater ease, substantially as set forth.

No. 19,401.—Elijah H. Bloodgood, of Thomaston, Ga.—*Improvement in Ploughs.*—Patent dated February 16, 1858.—Attached to the beam Z and its handles O are the double feet L L. Shank *a* of the feet passes through the opening of the beam Z at A, and brace C is secured to the left outside of the beam at B, and brace D is secured to the right hand outside of the beam at B by bolts passing through the beam Z at holes A and B, and laps applied to fasten them.

Claim.—The combination of beam Z and its handles O, with the double feet L L and braces C D, the whole being arranged in the manner and for the purpose set forth.

No. 19,455.—Turney Sanford, of Redding Ridge, Conn.—*Improvement in Ploughs.*—Patent dated February 23, 1858.—This invention

consists in the construction of the plough whereby the beam is rendered susceptible of being adjusted, both vertically and laterally, and secured at any desired point, for the purpose of regulating the depth and width of the furrow.

Claim.—The bars D D, F F, in connexion with the metallic rods G H and braces I I; the whole being constructed and arranged relatively with each, and the standard C, land side A, and mould-board B, as shown, and for the purpose set forth.

No. 19,563.–David Hoke, of Byhalia, Miss.–*Improvement in Ploughs.*—Patent dated March 9, 1858.—The beam A has handles B B. The stock C is a simple bar, with a horizontal bar *a*, and is secured to the under side of the beam by means of the bolts *b b*. A mortise *d* is formed in the flanch *a*, and a corresponding mortise through the beam, to receive the coulter D, which is held in the beam by a bolt *k* passing through any one of a set of holes *g g*. The coulter is held firmly back against the point of the stock by means of the wedge E.

The inventor says: I *claim* the arrangement of the coulter D, in combination with the stock C and beam A, substantially in the manner and for the purpose specified.

I also claim the mode of constructing the stock with a long horizontal flanch *a*, by which it is not only secured to the beam, but by which the coulter is held back against the foot of the stock, substantially as described.

No. 19,658.—Grey Utley, of Louisburg, N. C.—*Improvement in Ploughs.*—Patent dated March 16, 1858.—B is the beam, H H are the handles, and S the stock. The stock is connected with the beam by the bolt *a*, about which it turns as brace *b* is moved by the nuts *c c*, securing it to the beam. The mould-board M is formed with a flange *f* having slots *e e*. Bolts *i i* pass through the stock and secure the mould-board thereto. Opposite to the mould-board, and forming part of the stock, is a secondary land side L^1 for resisting the pressure against the turning portion of the plough.

Claim.—The combination of the vertically adjustable mould-board M with the sub-soil point and the two land sides L L^1, substantially as and for the purpose set forth.

No. 19,725.—Daniel L. Tilton, of Mt. Carmel, Ill.—*Improvement in Ploughs.*—Patent dated March 23, 1858.—In the engravings, A is the beam, B the mould-board, J J are tines or prongs, journalled perpendicularly in the beam in front of the mould-board, and depending obliquely or in curved form from the under side of the beam to near the ends, where they take nearly a vertical direction.

Claim.—The construction and arrangement, substantially as described, of the tines J, operating in the manner and for the purposes explained.

No. 19,706.—Thomas McConaughy, of Burnsville, Ala.—*Improvement in Ploughs.*—Patent dated March 23, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Extending the piece P, to which the point is secured, rearwards a distance nearly equal to its height, and giving it increasing lower flanges at bottom, said piece being formed with thick bounding edges, and a thin plate filling the intermediate space, substantially as and for the purposes set forth.

No. 19,886.—Joshua C. Williamson, of Washington, Ga.—*Improvement in Ploughs.*—Patent dated April 6, 1858.—This plough, exclusive of the stock, consists of but three pieces, viz: the plough iron E, brace F, and shoe, cutter, or shovel G, and the invention consists in the peculiar device employed for securing the cutter to the plough iron and brace.

Claim.—The combination of the plow iron E, brace F, and cutter or share G, when formed and united together, and to the beam, in the manner and for the purpose set forth.

No. 19,878.—Thaddeus S. Scoville, of Elmira, N. Y.—*Improvement in Ploughs.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim making the eyes of the spur-wheels larger than the journals on which they turn.

Nor do I claim the simple use of washers or of clearing-teeth.

But I *claim* the combined arrangement of the loosely turning spur-wheels D D, the separating washers *f f*, and the clearing-teeth *i i*, acting upon or close to said washers, substantially as specified, so that the eccentric movement of the said spur-wheels, together with the said closely-fitting washers and clearing-teeth, will effectually keep the implement free from impediment.

No. 19,909.—Thomas E. C. Brinly, of Simpsonville, Ky.—*Improvement in Ploughs.*—Patent dated April 13, 1858.—The nature of this invention consists in the cutting out or scolloping the hind part of the mould-board, as represented by letter A. The part C is a piece of cast iron for screwing the hook B to the beam of the plough and adjusting it; the holes in the hook are for the purpose of raising and lowering it to suit the depths of the furrow.

Claim.—The grass-hook B and its plate C, when constructed, arranged, and operated in relation to the beam and mould-board of the plough, substantially in the manner and for the purpose set forth.

No. 20,269.—John M. Hall, of Warrenton, Ga.—*Improvement in Ploughs.*—Patent dated May 18, 1858.—The nature of this invention consists in forming a plough which, by the combination of the parts, shall produce a plough that will be capable of performing all the work ever required, either as a common plough, sub-soil, opening-sweep, or hill-side plough, or any two of them combined, by simply arranging the parts as the nature of the work requires.

Claim.—The construction, arrangement, and combination of the body of the implement and its movable parts described, whereby it is readily adapted to properly receive, in turn, the several parts employed for performing the various modes of cultivation specified.

No. 20,659.—Henry M. Platt, of Darien, Conn.—*Improvement in Ploughs.*—Patent dated June 22, 1858.—The nature of this invention consists in causing a four-winged and screw-formed share A to revolve as it passes through the soil, and thus pulverize it for the purpose of agriculture.

Claim.—The arrangement of the screw-shaped ploughshare A, having wings E, with boxes H and F, wheels I, and roller D ; the whole being constructed and operating conjointly in the manner and for the purpose set forth.

No. 20,633.—Alexander Dickson, of Hillsboro', N. C.—*Improvement in Ploughs.*—Patent dated June 22, 1858.—The object of this invention is to render an ordinary surface-plough available, when necessary, as a sub-soil plough. The invention consists in the use of a supplemental land side F and a coulter G attached to the plough.

Claim.—The supplemental land side F and coulter G, arranged and applied to the plough as shown, and for the purpose set forth.

No. 20,790.—J. P. Harris, of Byhalia, Miss.—*Improvement in Ploughs.*—Patent dated July 6, 1858.—To the lower end of the stock A is secured a foot B, made in a single piece of cast iron or sheet iron, in the form of a hollow shell, fitting round the front side of the stock, the sides or wings thereof curving backward and outward on either side of the stock A, the sole *b* covering the angle between the said sides at the bottom. The sole inclines upward as it extends back, so that a wedge-shaped face is formed in the lower extremity of the foot, which receives the end *c* of the stock.

Claim.—The hollow foot B, formed and arranged for the reception of the stock A and point C, substantially as specified.

No. 10,935.—G. D. Colton, of Galesburg, Ill.—*Improvement in Ploughs.*—Patent dated July 20, 1858.—D represents a back cross-bar of the frame A ; this bar is pivoted or secured by means of a nut and screw at the point *p* at one side of the axle C, and may be adjusted to different positions by removing the screw at *p* and placing it in the holes *g g*. The frame is secured at the other side of the axle by means of the strap of metal marked *n* which passes around the axle. This strap is made sufficiently full to allow of the frame playing up and down, said frame following of its own weight upon the axle, but is elevated by means of the windlass G and cord *m*. The windlass G and seat F are both supported by means of the two uprights *r r* which set in the end of the axle.

The inventor says: I *claim* arranging the frame B secured to the axle C, as described, with the strap *n*, cord *m*, and windlass G, the several parts being operated in the manner and for the purpose set forth. Also this in arrangement with the revolving coulters and a double-pointed beam, all being constructed and operated substantially as described.

No. 20,968.—Walter Warren, of Penn Yan, N. Y.—*Improvement in Ploughs.*—Patent dated July 20, 1858.—The beam and mould-

board are held together by bolts passing through the parts E and F and G; the bolts hold the parts together, but are not needed to resist the draught applied to the beam; the peculiar joint of these parts increases the firmness as the draught is increased. I I are the handles, of ordinary construction; the right one is attached to B, the left to the hind part of beam A, which is extended upward to receive and support the handle.

Claim.—The described arrangement of beam A and its portion G with the mould-board B and its land side portions E F; the whole being constructed as and for the purpose set forth.

No. 20,984.—Samuel R. Bliven, of McDonough, N. Y.—*Improvement in Ploughs.*—Patent dated July 27, 1858.—There are some ploughs constructed so that certain parts will reverse and thus turn the sod on either side of the implement, as occasion may require. This is an improvement in one of these; it consists in the employment of two stationary mould-boards in connexion with a reversible share so arranged as to attain the desired end.

The inventor says: I do not claim broadly a reversible share, for they have been previously used, although I am not aware that they have been arranged like the one shown.

I am also aware that double mould-boards have been used; I therefore do not claim such.

But I *claim* the reversible share E attached to the shaft F and connected with the lever G, or its equivalent, in combination with the two mould-boards B B^1; the parts being arranged relatively with each other, as and for the purpose set forth.

No. 21,167.—Joseph Jones, of New Castle, Del., assignor to Edmund Jones and Joseph Jones, Jr., of said New Castle.—*Improvement in Ploughs.*—Patent dated August 10, 1858.—The mode of working these improved ploughs is thus described: The workman, standing on the frame A, lays hold with his left hand on the lever F, and on the lever H with his right. On depressing lever F and raising lever H two of the ploughs will be raised from the soil, independent of the others. Should it be required that the whole gang be raised simultaneously, then the connecting pinion *h* is brought in mash with *f f*, and all the racks will be operated on at once.

Claim.—The combination of the described gear and levers, when constructed and arranged for operation conjointly, in the manner as and for the purposes set forth.

No. 21,182.—William Black, of Manchester, Pa.—*Improvement in Ploughs.*—Patent dated August 17, 1858.—The nature of this invention consists in attaching to and using with the ploughs that are used for surface furrow ploughing, an adjustable revolving or rotary sub-soil digger, to dig and loosen the sub-soil that is under the bottom of the furrow made by the plough at the same time and by the same team that the surface of the ploughing is done; which digger is to have its axis horizontal at or near a right angle to the land side, and its axle in journal bearings that will yield upward if the digger should strike

a stone or other hard substance in the subsoil. This digger is to rotate behind the mould-board in the rear of the land side of the plough, so as to dig and loosen the subsoil immediately after the plough has turned the furrow slice of surface soil out of the way of the digger.

The inventor says: I do not claim either of the individual parts thereof, nor do I claim the precise form of the digger teeth or picks shown and described, as similar ones may be seen on a patent granted E. F. Berry, February 19, 1856.

Nor do I wish to be understood as limiting my claim to the precise arrangement shown and described of the springs E, joints 6, rods 2 and 3, with the plough P and digger H, as that is susceptible of various other modifications.

But I *claim* the combining with the plough P the adjustable rotary digger H, having sharp teeth or picks T, substantially as described, for the purpose set forth.

No. 21,423.—Samuel Hulbert, of Ogdensburg, N. Y.—*Improvement in Ploughs.*—Patent dated September 7, 1858.—The nature of this invention consists in having a pipe at or near the front end of the beam in which to place a spring, and pass a bolt through it to the rear end of the spring by which to draw the plough.

The inventor says: I do not claim any of the parts, separately considered.

But I *claim* the adjustable beam F, slot D, pivot C, spring clevis E, and adjustable handle G, combined, arranged, and operating as set forth and described.

No. 21,598.—David Cockley, of Lancaster, Pa.—*Improvement in Ploughs.*—Patent dated September 28, 1858.—The nature of this invention consists in attaching the mould-board, the cutter, the land side, point, and share by means of dovetailed clutches and one short bolt underneath, for the purpose of preventing holes being made through the cast iron mould-board, so as to allow the mould-board to be chilled on its whole surface. Thus making it susceptible of a higher polish, and consequently of lighter draught and greater durability.

The inventor says: I *claim* the adjustable cutter-wheel N, cleaner W, and devices V X Y Z, when arranged with the regulator C, in combination with the beam F, and the whole constructed for operation conjointly, as and for the purposes set forth.

I also claim the mode of arranging and fastening the point *c*, share *d*, and land side with its cutter *j*, so as to hold them with the short screw *k* and plate *l*, in combination with the mould-board *h* and beam F, substantially as described.

No. 21,630.—B. B. Scofield, of Andover, Illinois.—*Improvement in Ploughs.*—Patent dated September 28, 1858.—D represents a mould-board, and E a land side. These parts are of the usual construction. The standard F, however, instead of being attached to the beam by a nut or key, as usual, passes up through the beam, and has a rack *e* formed at one side of it, the rack being slightly curved, forming a segment of a circle, of which the pivot *f* is the centre. The said pivot

connects a bar *g* to the back part of the beam A, the lower end of the said bar being attached to the back end of the land side E. G is a pinion, the axis of which is fitted in a suitable upright *h* on the beam A. The axis of this pinion has a lever H attached to it, and to the beam A a semi-circular bar I is secured, to which the lever H may be attached at any desired point by means of a clamp J. The pinion G gears with the rack *e*.

Claim.—The arrangement and combination of the pivoted bar *g*, share D, land side E, standard F, curved rack *e*, pinion G, and lever H, as and for the purposes shown and described.

No. 21,824.—John Dickson, of New Castle, Pa.—*Improvement in Ploughs.*—Patent dated October 19, 1858.—This invention consists in the use of a double land side, or land sides, for increasing thes ize and weight of the plough, the share being moved when the plough is altered by the removal or addition of the double land side and a smaller or larger share attached as the decreased or increased size of the plough requires.

Claim.—The use of a double movable land side for increasing the size and weight of the plough, in the manner described.

No. 21,846.—William Reany, of Berzelia, Ga.—*Improvement in Ploughs*—Patent dated October 19, 1858.—This invention consists in an improved mode of changing the form of a plough so as to adapt it to different soils, and to shallow or sub-soil ploughing at pleasure.

The inventor says: I *claim*, first, the mode of varying the form of the plough by the use of the adjustable coulters, figs. 3 and 4, the latter being provided with the sub-soiler E, and the several parts constructed and arranged for operation, substantially as set forth.

Second. I claim the use of the wedge C, in combination with the mould-board, for adjusting the entire front part of the mould-board to correspond with the adjustment of the coulters, as described.

No. 21,953.—John Gehr, of College of St. James, Maryland.—*Improvement in Ploughs.*—Patent dated November 2, 1858.—The nature of this invention consists in certain devices for keeping clear the mould-board of the plough. As the plough is drawn along the roller is made to revolve, imparting a side motion to the dirt and other matter coming in contact with it, thereby keeping the mould-board from becoming foul. The flange on the upper part of the roller prevents any matter from entering between the upper head of the roller and the plough beam.

Claim.—The hollow corrugated roller *a*, in combination with the mould-board *c*, brace *g*, and guard *f*; the whole being constructed and arranged substantialy in the manner and for the purposes set forth.

No. 21,975.—Allen Albert McMahen, of Oxford, Mississippi.—*Improvement in Ploughs.*—Patent dated November 2, 1858.—On the outer side of the mould-board there is a lug or dead eye 6, through which and one of the holes in the brace G a bolt 7 passes to hold the mould-board to the coulter. Thus the mould-board may be set up or

down to suit the depth of ploughing that is to be done for the time being.

Claim.—In combination with a coulter, having a brace and adjustable openings therein, a mould-board whose shank is made adjustable in the beam, so that said mould-board may be adjusted to the coulter and in the beam, as described; the whole being combined and arranged in the manner and for the purpose set forth.

No. 22,013.—John M. Burke, of Dansville, New York.—*Improvement in Ploughs.*—Patent dated November 9, 1858.—This invention consists in depressing the rear end of the mould-board, and curving the depression inward, in order to give a smooth finish to the surface of the earth that is thrown upward and outward by the mould-board to form the hill.

Claim.—Depressing and bending inward the rear and lower edge *f* of the mould-board, as described, for the purpose set forth.

No. 22,332.—Thomas Wiard, of Louisville, Kentucky, assignor to G. W. Pitken, H. W. Pitken, and W. P. Wiard, of said Louisville.—*Improvement in Ploughs.*—Patent dated December 14, 1858.—The inventor says: I am aware that ploughs and cultivators have been so made as to be capable of a change of mould-boards. This I do not lay any claim to, my invention pertaining to the manner in which I construct the standard, with one rigid and one movable wing, for the purpose of making said standard and wings susceptible of receiving the several changes of points and mould-boards which are ordinarily used on a farm; thus making one stocked standard serve the purpose of holding the several varieties of ploughs used.

In naming what he claims as new, the inventor says: I *claim* the standard A, with its permanent wing B, and recesses or shoulders for the reception of the removable wing I, constructed and arranged substantially in the manner and for the purpose set forth.

I also claim, in combination with the standard A, constructed as set forth, the adjustable cutting and guiding wheel L, so that said wheel may be thrown into or out of action, as the circumstances of the case may require, and as described.

I also claim the uniting of the handles, beam, and standard together, by means of the pockets *a*, dowels *e*, recesses *f*, and bolt *h*, substantially in the manner described.

No. 22,389.—Reed Vincent, of Rockton, Ill.—*Improvement in Ploughs.*—Patent dated December 21, 1858.—A is a convex standard, B a perpendicular brace, C a curved handle secured by a bolt to perpendicular brace B; D having a horizontal brace extending from convex standard A to brace B, connecting and supporting the same; letter E being a bolt securing the standard to the side of the beam.

Claim.—The combination of the convex standard A, the braces B D, and the mould-board, when arranged in connexion with the beam and bent handles C, as described and represented, and for the purpose set forth.

No. 20,689.—Moses Barrowman, of Buffalo, New York.—*Improvement in Drain Ploughs.*—Patent dated June 29, 1858.—The nature of this invention relates to the construction of a centre piece A, which serves as a main frame or support for other parts of the plough, and in the combination and arrangement of the several parts.

The inventor says: I do not claim either of the bearing or adjustable wheels described, nor the arms, levers, or shafts by which they are supported, when separately considered.

Nor do I claim their combination or arrangement differently than as set forth.

Neither do I claim the combination of the cutter or cutters with the winding trough or circular conveyor, as that has been done before.

But I *claim*, first, the centre piece A, for the purpose of a main frame or support for the other parts of the plough, substantially as set forth.

Second. I claim the arrangement and combination of the adjustable wheels G G, the arms H H, shaft K, lever J, and segment I, relatively to each other and the plough, as described.

No. 10,077.—Myrtillus A. Cravath, of Loda, Ill.—*Improvement in Gang Ploughs.*—Patent dated January 12, 1858.—The peculiarities of this invention consist in an arrangement of gauge wheels, whereby they are kept entirely clear of the newly ploughed ground; a mode of attaching the ploughs to the frame so as to facilitate their being thrown out of and into the ground, and retained in either position, and in an approved construction of land side beam for adjustment of the depth of ploughing.

The inventor says: I *claim* as new, and of my invention, first, the method, substantially as described, of attaching the ploughs to the frame, whereby they are made capable of being thrown out of and into action by partial rotation on their axes, as exhibited.

Second. In combination with the above, the described arrangement of the wheels E F G, whereby the chief weight of the implement devolves upon the wheels E F, which run on the level bottom of the furrow.

Third. The described construction and arrangement of the jointed land side beam A A^1, in combination with the lever *t* and *u* rack, or equivalent devices, operating substantially as set forth.

No. 19,652.—Lewis Roach, of Covington, Ky.—*Improvement in Gang Ploughs.*—Patent dated March 16, 1858.—A is the frame, B B^1 are ground wheels connected and rotating in conjunction with the axle *b*. E is the rotating plough shaft journaled in swinging stirrups D D^1, the hinge attachments of which to the frame A form, also, the axis of carrier wheels I, which gear the cog-wheels J on the axle *b*, and also the pinion H on the plough shaft E. L L are wheels running loosely on the plough shaft E. The ploughs K K^1 are bolted to splines G G^1 of the represented spiral form, which are attached to the arms F *f*, on the shaft E.

Claim.—The described arrangement of spiral splines G, (to which the ploughs are attached,) and adjustable arms F *f*, in combination with the gravitating shaft E and the gauge wheels L.

No. 20,122.—G. W. N. Yost, of Cincinnati, Ohio.—*Improvement in Gang Ploughs.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the torsion spring above described, in combination with the ploughshare, for the purpose of allowing a single share to swing backward in passing stones, and then automatically to replace itself in working position, thus avoiding the breaking of the plough or stopping of the team, substantially as set forth.

Second. The use of the team guide for managing the team, so as to obviate the necessity of employing many drivers, substantially as described.

Third. I claim the use of the team shade in combination with the team guide for sheltering the team from the heat of the sun or from rain, substantially as set forth.

No. 20,342—Jesse Frye, of Mendota, Illinois.—*Improvement in Gang Ploughs.*—Patent dated May 25, 1858.—Ante dated March 18, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the attachment of the tongues to the forward and rearward plough-stocks, and the connexions between the various plough-stocks, so that when the team is turned, the plough shall be turned so as to point towards a common centre, substantially in the manner and for the purpose described.

I also claim the connexion of the forward furrow wheel with the tongue by means of the curved slotted arm R and bolt I, in combination with the cranks and connecting rods between the wheel shafts, so that when the team is turned, the forward wheels shall be turned in the same direction, and the rear furrow wheel shall be made to track the forward wheels, substantially in the manner and for the purpose set forth.

I also claim hanging the hinged coulter *t* to the rear of the front furrow wheel by means of a chain, which, when the team is turned, will raise said coulter out of the furrow, substantially in the manner and for the purpose set forth.

No. 20,647.—Don C. Matteson, of Stockton California.—*Improvement in Gang Ploughs.*—Patent dated June 22, 1858.—The false beam N has attached to the end of it a goose-neck G. The lever *i* by means of chain *r* is to throw the plows out of the ground, and also gauge the depth of the furrow by raising or lowering, and going from field to field, by means of a catch L, axletree *w* with tongues 7, attached to the right side.

Claim.—The arrangement, as described, of the false beam N, goose-neck G, axle *w*, lever *i*, catch L, and the system of ploughs attached to their frame, as set forth; the whole being constructed and operating substantially as and and for the purposes specified.

No. 19,496.—Samuel Dennis, jr., of Jasper, New York.—*Improvement in Hill-side Ploughs.*—Patent dated March 2, 1858.—In this improvement two mould-boards F and shares G are used—one to turn a furrow to the right and the other for turning a furrow to the left hand

side. These are so connected by gearing that when one is lowered into its operating position the other is raised so as to be clear of the land.

Claim.—The combination of two mould-boards and shares with a single stationary land side in the construction of a hill-side plough, substantially as described for the purpose stated.

No. 20,812.—Modest Merk, of Rochester, New York.—*Improvement in Hill-side Ploughs.*—Patent dated July 6, 1858.—This improvement consists in the peculiar manner of constructing and arranging the mold board.

A is the draught beam, B the handles, C the coulter shave, and D the subsidiary mould-board; E is the furrow bar occupying the position of the ordinary land side, and F F the frame, constructed of iron and firmly bolted to the bar E, and connecting it with the wood work.

Claim.—The reversible convex winged coulter share C, constructed as described, in combination with the plane subsidiary mould-board D, connecting arm J, and furrow bar E, arranged and operating substantially as and for the purpose set forth.

No. 21,306.—Henry S. Akins, of Speedsville, N. Y.—*Improvement in Hill-side Ploughs.*—Patent dated August 31, 1858.—In this invention the act of moving the hook which fastens the mould-board B from one side to the other reverses both the coulter F and chain clevis. In reversing the plough the hook should be unhooked from the mould-board, and the mould-board turned down, as shown in the engravings, and raised up on the side opposite to that which it occupied before.

The hook L should then be drawn over to the side on which the muold-board is, and hooked in the mould-board. The plough will then be completely reversed and in the position to turn a furrow in the opposite direction to the one last turned.

The inventor says: I do not claim, broadly, the combination of the reversible mould-board with the adjustable coulter.

But I *claim*, first, the reversible mould-board and coulter, in combination with a reversible clevis, in the manner and for the purposes substantially as described.

Second. Attaching the hook L to the lever I, which operates the coulter E, thereby making the operation of reversing the hook, adjusting the coulter, and fastening both the mould-board and coulter in their respective positions by one and the same hook, and at one operation, as set forth.

Third. The reversible chain clevis O, for the purpose of producing reversible side draught, when connected and operated in the manner substantially as described.

No. 21,547.—Thomas E. C. Brinley, of Simpsonville, Kentucky.—*Improved Plough Press and Drill.*—Patent dated September 21, 1858.—The operation of this machine is as follows: The follower E is detached from the screw B by removing the screwbolts *s* and one of the bars *e*. Then the follower and also the bed D of the press are moved, and the drill G is inserted, as shown in the engravings. The plough plate is

then placed upon the lower cross-bar of the frame A, and the requisite holes are bored by the drill G, which may be worked by hand or any other power.

After a suitable number of plates have been bored, the drill is removed and the bed of the press, and also the follower, are put in place. The bored plates are then inserted into the press, and by means of the screw B the follower is brought down, and thus the plates are warped of the desired form.

Claim.—The above described press, in combination with the drill for pressing and drilling the mould-boards of ploughs; the whole being constructed, arranged, and operated substantially as set forth.

No. 19,412.—Paul Dennis, of Bemus' Heights, N. Y.—*Improvement in Shovel Ploughs.*—Patent dated February 23, 1858.—This is a combination of a peculiarly constructed mould-board B, an adjustable gauge roller F, and a point or share E, made separate from the mould-board, and attached to it in such a manner that the share and mould-board may be made to penetrate the soil at a greater or less depth, as may be desired. The point or share can be readily removed from the mould-board to be ground or replaced by a new one. The soil is made to pass over the mould-board into the furrow, so that the surface will be left in a mellow but level state, with all the weeds, grass, &c., cut up.

Claim.—The bar A and mould-board B E, in combination with the adjustable rollers F; the whole being constructed and arranged substantially as and for the purpose set forth.

No. 19,427.—Peirce Klingle, Linnaen Hill, D. C.—*Improvement in Steam Ploughs.*—Patent dated February 23, 1858.—To each end of the frame E F F E is attached the ploughs P and P, hinging at E F and F E. The bearing wheels B and B are placed within the frame in the centre of the machine. The boiler A is placed immediately over the bearing wheels. At both ends of the machine, in front of the point of each plough, are the steering wheels D D, working in the ends of the curved frames H and H, which project from the main floor over and beyond each plough.

Claim.—The combination of the driving wheels B B and ploughs P P with the steering wheels D D; the whole being constructed, arranged, and operated substantially in the manner and for the purpose set forth.

No. 21,661.—James W. Evans, of New York, N. Y.—*Improvement in Steam Plough.*—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the combination and arrangement of the main shaft G, and cranks H I, forming part thereof, with the main axle E and driving wheels D, by means of screw shaft M and the bevel K and L and the screw thread N upon the axle, so that by the action of the piston rod 15, attached to crank H, the reciprocating action is communicated to the ploughs Y Y, and at the same time the machine is moved forward in due proportion to the stroke of the ploughs

by the rotation of wheels D, and thereby cutting a continuous furrow by a rectilinear and direct thrust of the plough or ploughs.

Second. The construction and arrangement of the supports or guide pieces P P, the pairs of vertical rods Q Q Q^1 Q^1, operating by means of the eccentric V, and the lever and arm T W, in the manner described, for guiding, securing, elevating and lowering the plough.

No. 19,215.—William Stoddard, of Lowell, Mass.—*Improvement in Ploughing Machines.*—Patent dated January 26, 1858.—The nature of this invention consists in so constructing a series of ploughs X with adjustable gauge pulleys, connected to the mould-board thereof, for governing the depth of the furrow, and connecting these ploughs firmly to endless bands or chains, which are carried by, combined with, and connected to swinging arms and pulleys thereon in such a manner that the ploughs are moved to turn the furrows, and at the same time a constant yielding movement is given the ploughs, while at the same time the ploughs are governed to the required depth, and to an uniform depth, while they are operated to turn the furrow at right angles with the machine.

Claim.—Constructing the ploughs X, with an adjustable depth gauge *e* and S attached to the mould-board thereof, in the manner described, when such ploughs are connected (for operation) to an endless chain or band, in combination with the flexible arms J, which carries the ploughs X and bands W, essentially in the manner and for the purposes fully set forth and described.

No. 19,189.—Joseph W. Fawkes, of Christiana, Pa.—*Improvement in Machines for Ploughing.*—Patent dated January 26, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The employment of the barrel-shaped wheel or driver E, constructed with spurs K K, in the manner described, in combination with guiding wheels C C, and screw D, and segmental rack *b*, for the purpose of drawing the plough frame and ploughs described, in the manner set forth in the specification.

No. 20,300.—Abner Reeder, of Wrightstown, Pa.—*Improvement in Apparatus for Cleaning the Coulters of Ploughs.*—Patent dated May 18, 1858.—When the ploughman finds that the coulter D has become clogged, he removes his hand from the handle B^1 of the plough, and placing it on the bent end of the rod E, forces the latter downwards until the prongs pass into the front of the coulter and clear away the accumulated soil; when the ploughman releases the rod the spiral spring *h* forces it back to its original position.

The inventor says: Without claiming broadly an apparatus under the control of the ploughman for clearing the coulter of ploughs, or the employment of a spring in connexion with such apparatus, I *claim* the spring sliding rod E, with any convenient number of prongs, when connected to, and arranged on, the plough, as and for the purpose set forth.

No. 19,849.—Lewis W. Harris, of Waterville, N. Y.—*Improvement in Potato Diggers.*—Patent dated April 6, 1858.—In this invention a drag G is employed in connexion with a share E, so arranged that the hills or drills containing the potatoes or other roots will be opened by the share and the roots subjected to the action of the drag, whereby the earth will be levelled and the potatoes brought to the surface of the ground. This invention also consists in the use of supplementary shares F F, in connexion with the drag and opening share, whereby the sides of the hills or drills are pared off preparatory to the action of the central opening share and drag.

The inventor says: I *claim* the employment or use of a share E and drag G, so constructed and arranged to operate as and for the purposes shown and described.

I further claim, in combination with the share E and drag G, the supplementary shares F F, arranged to operate conjointly with the drag and opening share, as and for the purpose specified.

No. 20,949.—Malcolm Little, of Clyde, N. Y.—*Improvement in Machines for Digging Potatoes.*—Patent dated July 20, 1858.—This machine is composed essentially of a large, strong fork E, supported and drawn by means of a pair of wheels A A, axle B, and tongue or shafts C C. The fork is so constructed and arranged that the attendant can manage it in such a manner as to remove the potatoes from the ground with it while it is drawn along.

Claim.—The arrangement of the fork E within and in combination with the roller G, substantially in the manner and for the purpose specified.

No. 21,226.—Luke White, of Essex, Vt.—*Improvement in Machines for Digging Potatoes.*—Patent dated August 17, 1858.—The nature of this invention consists in constructing a machine by which potatoes may be dug from the ground, the earth taken up with them, separated from them, and the potatoes assorted at the same time..

Claim.—The combination of wheel *c*, having buckets on the outer edge thereof, with wheels *d* and separator *e*; the whole being constructed and arranged as and for the purpose set forth.

No. 21,225.—Alexander Wells, of Brooklyn, N. Y.—*Improvement in Machines for Digging Potatoes.*—Patent dated August 17, 1858.—This invention consists in the use of rotating spirally-flanched diggers, which are fitted in adjustable frames attached to the main frame of the machine, and operated by gearing from the wheels on which the main frame is mounted, in connexion with the serrated or toothed clearers; the whole being arranged so that potatoes, or other roots which are grown in hills or drills, may, as the machine is drawn along, be dug or brought to the surface of the ground, so that they may by easily gathered.

Claim.—The rotating spirally-flanched diggers *o*, in connexion with the clearers P, arranged for joint action, substantially as and for the purpose specified.

No. 21,413.—Nathaniel Gear, of Zanesville, Ohio.—*Improvement in Machines for Digging Potatoes.*—Patent dated September 7, 1858.—The nature of this invention relates more especially to the construction and operation of the scoop for digging, and the skeleton wheel for gathering and sifting out the earth, &c., previous to its delivering the potatoes in the receptacle behind it.

Claim.—In combination with the scoop for digging, the skeleton wheel K for gathering, carrying sifting, and delivering, the potatoes into the box or receiver, substantially as described and represented.

No. 21,664.—Peter Fitzgerald, of Constantina, Ohio.—*Improvement in Hay Rakes.*—Patent dated October 5, 1858.—The nature of this invention consists in raising the rake teeth of a carriage rake to empty them of the hay collected by them by the movement of the truck wheels of the machine, and in an arrangement of the parts by which the rake teeth are kept suspended above the ground when the machine is moved from place to place as may be required. Also, in an arrangement of parts by which the rake teeth are cleared of their gathered load and by which the winnow is compressed and packed into a smaller place and space.

Claim.—The combination of the shafts J and N, and the clutch M, and brake O, with the levers Q Q^1, bar *d*, handle *e*, and cam T, for the purpose of putting the brake and clutch in operation, as described, and for the object set forth.

No. 21,712.—George Whitcomb, of Port Chester, New York.—*Improvement in Hay Rakes.*—Patent dated October 5, 1858.—The operation of this machine is as follows: The driver is on his seat D, his feet being placed on the treadles J K, by operating which the rake teeth F may be raised and lowered; an arbitrary or positive movement may be given the rake in both movements. The head E, in working the joints *c*, serves to counterpoise the teeth F; for instance, in depressing the treadle J the head E is turned so that its centre of gravity will pass over to the front sides of the joints *c*, and the gravity of the head will therefore assist in elevating the teeth F. The driver may at any time assist the feet by operating the lever I with his hand.

The inventor says: I do not claim the wire teeth F attached to the head E, as shown, for such device mounted on wheels is in quite common use, and known as the wire-tooth horse rake.

But I *claim* the arrangement of the treadles J K, lever I, rake head E, arms G H, bar F, joints C, and adjustable rope L, substantially as and for the purposes set forth.

No. 21,698.—Mathias Raezer, of Reading, Pa.—*Improvement in Hay Rakes.*—Patent dated October 5, 1858.—The operation of this machine is as follows: The spring teeth *f* proceed to gather the crop; the rake being full, the operator upon the seat *d* takes his foot off the foot pin *t*, and draws lever *e* towards him, which causes the spring teeth *f* to rise and the prongs *g* to drop down and discharge the contents of the teeth; the lever *e* is then pressed forward by means of the foot pin and the operation repeated.

Claim.—The spring bar *z*, the foot lever *e*, and the gearing *n n*, arranged and combined as described for the purpose set forth.

No. 19,420.—William Horning, of New Lebanon, Ohio.—*Improvement in Horse Rakes.*—Patent dated February 23, 1858.—A represents the wheels, B axle, C thills, D treadle, E rake-head, M teeth, O clearers, and G the platform. Projecting rearward from the rake-head are levers H which support the standards I, surmounted by a seat J.

Claim.—The arrangement of the seat J, standards I, and levers H, or substantially equivalent devices, in the described combination with the rake E N, for the purposes set forth.

No. 21,268.—Mirick Morgan, of Lancaster, Pa —*Improvement in Horse Rakes.*—Patent dated August 24, 1858.—G are cast iron hinges or joints fastened to the roller eyes E by screw bolts and nuts H; I are the teeth which form the rake, and are made of rod iron and curved inwardly, the upper end J of each tooth being bent half round the centre of the hinge G, and then backward under the hinge so as to stiffen the tooth and prevent it from falling downward when the teeth are raised by the operation of the lever K.

Claim.—The arrangement of the axle G and cleavers O with teeth I, having curved ends J, hinges G, and roller E; the whole being constructed for joint operation, as and for the purpose set forth.

No. 21,358.—L. H. Parson and George Houston, of Middletown, N. Y.—*Improvement in Horse Rakes.*—Patent dated August 31, 1858. The operation of this machine is as follows: As the machine is drawn along, the teeth *h* collect the grass or grain, as usual; and when the rake is full the driver on seat D draws back the lever G, and the section F, in consequence of gearing into the tooth-ring *d*, will turn the head E, and the teeth *h* will be raised backward and the grain or grass discharged therefrom. The teeth *h* are lowered by throwing forward the lever G. The rods I throw aside a portion of the gravel discharged by the rake, so that the wheels may pass through the gravel without threshing out the grain.

Claim.—The arrangement and combination of the rake E, toothed-sector F, toothed-ring *d*, supplemental springs *k*, and clearers I, substantially as and for the purposes set forth.

No. 22,235.—John W. Hadcock and Parker Wilcox, of Norway, N. Y.—*Improvement in Horse Rakes.*—Patent dated December 7, 1858.—The nature of this invention consists in providing a shield or point of metal to rake-teeth which shall protect the said teeth from splintering or splitting, and also keep them from entering the ground.

Claim.—The arrangement of the rake-teeth D with the metal point or shield *c*, as and for the purpose set forth and described.

No. 22,232.—Christian Garver, of Londonderry, Pa.—*Improvement in Horse Rakes.*—Patent dated December 7, 1858.—The nature of this invention consists in the arrangement of a cross-piece or

cleaner A, having two parallel arms or stays B B bent at their insertion, or attachment to cross-piece A, at one end, and having oblong holes or openings *i* at their other end. These oblong holes are for the purpose of affording the requisite play in headed pin *o*, which keeps them in place while the rake is being raised in emptying.

Claim.—The arrangement of the cross-piece A, staples *f*, parallel arms B, slots *i*, and pins O, with rake J, in the manner and for the purpose specified.

No. 19,753.—Asahel Cowley, of Harpersfield, N. Y.—*Improvement in Horse Hay-Rakes.*—Patent dated March 30, 1858.—In the engravings B B are thills; C board forming forward division of platform; D slanting notch in levers; E E head of rake; F F the teeth of rake; G G is the axle serving as fulcrum to levers; H H discharging-rods; I I are shanks connecting straps around head of separator, with levers; J J head of separator; K arm extending from operator to vibrator; M L L teeth of separator; N hand-rest; R R forward arms of levers; S S hind arms of levers. To unload the rake the foot is placed on the forward division of the platform and pressed suddenly down till it rests on the thills, where it is kept till the load is discharged.

Claim.—The described combination of a separator with a wheel rake, the whole being constructed, arranged, and operated in the manner and for the purpose as set forth.

No. 19,975.—Nelson E. Allen, of Trenton, Wisconsin.—*Improvement in Horse Hay-Rakes.*—Patent dated April 20, 1858.—This invention relates more especially to the mechanical connexions between the rake and the driving-wheel, so that the operator from his seat can release the rake and at the same movement throw it into gear with the driving-wheel, and thus give it a compulsory revolution on its journals or shaft; and by reversing said movement lock the rake and throw it out of gear, so that it may stand in proper position for raking into the windrow until again released.

The inventor says: I am aware that rakes have been held until released by the operator, but heretofore the rake-teeth, or their equivalents, must be in contact with the ground so that contact rotated them, and even then the rotation was not positively certain. I lay no claim to any such contrivance.

But I *claim* so connecting a lever H, which actuates the dog *c* with a clutch that gears with the driving-wheel D, as that one operation throws out the dog and throws in the clutch, and *vice versa*, which makes a positive and compulsory rotation of the rake by the means set forth and described.

No. 20,844.—John F. Faust, of Lebanon, Ohio, assignor to Richard M. Ross, Philadelphia, Pa.—*Improvement in Horse Hay-Rakes.*—Patent dated July 6, 1858.—This invention consists in the combined arrangement of the parts with which the revolving rake is attached when being operated.

Claim.—The combined arrangement of the arms A^1 A^1, rods B B, arms E E K K, and guide rod A A, as constructed and arranged with

the rake H and carriage, as represented, for operating the rake in the manner and for the purposes mentioned in the specification.

No. 19,687.—AARON F. FRENCH, of Franklin, Vt., assignor to GEORGE I. STANNARD, of St. Albans, Vt.—*Improved Binding Attachment to Reapers.*—Patent dated March 23, 1858.—A revolving rake is employed in this invention with stationary and curved rods, a band-holder and band-adjuster, so that the grain may be bound by an attendant as rapidly as it is cut by the reaping machine.

Claim.—The revolving rake formed of the curved teeth *b* attached to the shaft A, the rods D curved as shown, so as to form the receptacles *e f*, and the elastic strips *k k* connected with the lever-frame F; the above parts being combined and arranged to operate substantially as shown, with or without the rod or bar, for the purpose set forth.

No. 19,118.—J. W. BALTZLY and WILLIAM HOBSON, Pana, Ill.—*Improvement in Hand Reapers.*—Patent dated January 19, 1858.—The engravings and claim explain the nature of this invention.

The inventors say: We do not claim the sickle L, nor the manner of operating or driving it.

Nor do we claim a rake working through a slotted platform.

But we *claim* the semi-circular bars C, connected with the frame A, and having the axis *a a* of the wheels B B^1 attached and provided with pins *f* in connection with the rod or bar M, attached to the frame A, and arranged relatively with the above-named parts, as described, so that the sickle may be adjusted at the required height with facility, and a proper handle or device obtained, for the ready propulsion of the machine by hand.

No. 19,367.—CHARLES HOWELL, of Cleveland, Ohio.—*Improvement in Reaping and Mowing Machines.*—Patent dated February 16, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The method of connecting the castor truck with the main frame when used in connexion with a lever E and arm *d*, as described, whereby the operator is enabled instantly to raise the cutting apparatus to surmount such obstacles as may suddenly present themselves, and to regulate the height of the cut, and at the same time allow the machine to accommodate itself to the inequalities of the ground.

No. 19,904.—CHARLES BEACH, of Penn Yan, N. Y.—*Improvement in Reaping and Mowing Machines.*—Patent dated April 13, 1858.—

C is a cutter, its shape may be changed when driven by any other means than the wheel B and connexion E. This cutter has a cutting edge at the upper and lower edge; the lower edge to cut with a downward motion by the aid of cutter D, the upper edge cuts when rising that which it gets under while it is down. D is a cutter attached to the upper edge of part A, and is secured to part A.

Claim.—The combination of the cutter C and D with the separator of a havesting machine, when arranged and operated as and for the purposes set forth.

No. 20,212.—L. J. McCormick, William S. McCormick, and Cyrus H. McCormick, of Chicago, Ill.—*Improvement in Reaping and Mowing Machines.*—Patent dated May 11, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Making the finger bar of a mowing machine of a bar of iron, wedge-formed in its cross-section, with its forward edge which carries the fingers made thin, that the sickle may act upon and cut leaning grass, and with its rear edge thick to obtain the required strength, and the under surface inclined that it may act like a runner, to pass and ride over the surface of the ground to keep the cutting edge of the sickle clear of obstructions, whilst at the same time it can have access to leaning grass, all substantially as described.

No. 20,251.—John W. Brokaw, of Springfield, Mass., assignor to Warder, Brokaw, and Child, of said Springfield.—*Improvement in Reaping and Mowing Machines.*—Patent dated May 18, 1858.—This invention consists in the use of shell standard B, provided with sliding boxes D for the reception of the journals of the driving wheel, in connexion with a change of pinions, when the former are so arranged and constructed in relation to the pinion shaft as that when the frame of the machine is lowered to adjust it for mowing, it shall require a small pinion to mesh into the master wheel, and a large one when raised for reaping, thus giving a fast motion for mowing and a slow one for reaping.

Claim.—The construction and combination of the shell standard B and sliding boxes D, when used in connexion with a change of pinions, and operating in relation thereto, in the manner and for the purposes set forth.

No. 20,275.—Charles Howell, of Cleveland, Ohio.—*Improvement in Reaping and Mowing Machines.*—Patent dated May 18, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Connecting the outer end of the finger bar A with the gear block C, by means of a curved bar B, constructed in the manner substantially as and for the purposes set forth, whether it forms a prolongation of the gear block or otherwise.

No. 20,887.—C. Moul, of Hanover, Pa.—*Improvement in Reaping and Mowing Machines.*—Patent dated July 13, 1858.—This invention relates to a new and improved device for regulating the height of the cut and for instantaneously raising the cutting apparatus for the purpose of surmounting stumps, stones, and other obstacles which may suddenly present themselves in the path of the machine, by means of which damage to the machine is prevented.

Claim.—The combination of the truck frame H, caster wheel L, and lever K, the whole being arranged and operated in the manner and for the purposes substantially set forth.

No. 19,894.—Thomas Harding, of Springfield, Ohio, assignor to Warder, Brokaw, and Child, of said Springfield.—*Improvement n Cutting device for Reaping and Mowing Machines.*—Patent dated April

6, 1858.—In the engravings the knife is represented as being made of a series of triangular blades *a* rivetted to the sickle bar A, and describing with it, on either side, an angle of about 45° as a cutting edge, with the exception of the last one *b*, on the section or blade on the end of the sickle bar A, whilst its edge *x*, on the inside of the divider B, described a similar angle to the sickle bar, as the other, for the purpose of cutting has its outer edge *y* prolonged more or less according to the width of the divider.

Claim.—The arrangement of the end of the sickle bar A, next the divider, of a cutting and clearing section *b*, as constructed and for the purposes set forth.

No. 20,017.—John W. Brokaw, of Springfield, Ohio, assignor to Warder, Brokaw & Child, of said Springfield.—*Improvement in Reaping Machines.*—Patent dated April 20, 1858.—This invention consists in arranging the frame between the driving wheel and platform, commonly used in harvesting grain, an auxiliary platform of peculiar construction and operation, whereby the grain, as it is raked from the platform upon it, will be deposited automatically by its own weight in compact gavels upon the ground, out of the track of the horses, in the return swath.

Claim.—The combination of an auxiliary platform H with the platform for the reception of the grain as it is cut, when arranged, constructed, and operated in a space between the latter and the driving-wheel, in the manner substantially as and for the purposes set forth.

No. 21,207.—C. W. Marsh and W. W. Marsh, of Shabbona, Illinois.—*Improvement in Reaping Machines.*—Patent dated August 17, 1858.—This invention relates to an improved arrangement of parts applied to a reaping machine for the purpose of gathering grain as it is cut into proper-sized gavels, and enabling attendants to bind the same with facility into sheaves, and allow the sheaves to be discharged from the machine in piles, for the convenience of gathering or harvesting them.

The inventors say: We are aware that endless bands of rakes have been previously used for conveying cut grain from the platform of reapers, and we do not claim separately and broadly such device.

But we *claim* the box or receptacle I, platforms J M M, and box K, provided with the hinged or adjustable bottom end-piece *l p*, when the above parts are used in connexion with the endless bands of rakes D E, and arranged relatively with each other, substantially as set forth as and for the purpose specified.

No. 21,434.—James Mitchell, of Osceola, Iowa.—*Improvement in Binding Attachment to Reaping Machines.*—Patent dated September 7, 1858.—This invention consists in the use of clamps or band-carriers, a band-twisting device, tucking rod, and discharging device applied to the reaper, arranged relatively with each other and operated, whereby the grain is bound into sheaves and discharged upon the ground, the whole working automatically as the machine moves along.

The inventor says: I *claim*, first, the combination of the jaws *o o r r*, arranged as shown, and attached respectively to the slider *m m* and springs *p p*, whereby they are made to receive and grasp the ends of the band, as described.

Second. The clamp J, constructed of two parts i^1 j^1, attached to the rotating wheel h^1, and used in connexion with the slide-bar K and ledge l^1, for the purpose of twisting the ends of the band, substantially as described.

Third. The jaws *o o r r*, clamp I, band-twisting device J, tucking-rod K, and discharge-rod G combined, arranged to operate substantially as and for the purpose set forth.

No. 19,020.—Isaac H. Conklin, of Rockford, Illinois.—*Improvement in Seeding Machines.*—Patent dated January 5, 1858.—In this invention the machine is so constructed as to sow either in hills, drills, or broadcast, and give a greater or less quantity of seed in a given area. The improvement is explained by the engravings and claim.

Claim.—First. The hoppers *j* and the hopper F, when arranged with the bar B, as shown and used in connexion with the bar E, provided with shares as described, so that the seed may, by the same mechanism, be distributed from either hopper, and sown either in drills or check-rows, as may be desired.

Second. The disk c^1, attached to the wheel A and provided with teeth d^1, arranged in connexion with the disk b^1, for the purpose operating intermittently the bar B, for the purpose specified.

No. 19,144.—John Huston, of Ottawa, Ill.—*Improvement in Seeding Machines.*—Patent dated January 19, 1858.—This is an improvement in the distributing device whereby the seed is equally measured at each discharge, and the tube is prevented from becoming clogged; this is effected by means of vertical and horizontal slides.

The inventor says: I do not claim broadly, and irrespective of the arrangement shown, the employment or use of two slides for distributing seeds.

But I *claim* the arrangement of the shaft G, levers J *g* H, spring I^1, bar D, and slide I, substantially as and for the purposes shown, whereby, when lever J is moved forward the lever *g* operates the bar D, lever H operates slide I, and spring I^1 acts to restore or throw the said parts to their first position.

No. 19,333.—Chester Barton, of Savoy, Mass.—*Improvement in Seeding Machines.*—Patent dated February 16, 1858.—This invention consists in attaching the frame B^1, which carries the seed-distributing device, and to which frame the pressure rollers N N, and driver's stand O are attached, to the axle A, of the wheels, in such a way that the frame may be readily raised when necessary by the driver, and kept in an elevated state so that the roller will be free from the ground while the machine is being drawn from place to place. The weight of the driver increases the pressure on the rollers, and tends to keep the machine in position when it is not elevated.

The inventor says: I do not claim the employment or use of the pressure rollers.

Nor do I claim the seed-distributing device, for these are old and well-known devices, and in common use.

But I *claim* the frame B^1, provided with the seed-distributing device, and having the pressure rollers N N, and driver's stand O, attached, when said frame is connected with the axle A, and the shaft or windlass I, or its equivalent, and the whole arranged to operate substantially as and for the purpose set forth.

No. 19,423.—G. W. Hildreth, of Lockport, N. Y.—*Improvement in Seeding Machines.*—Patent dated February 23, 1858.—As the plough moves forward, the rear propelling wheel C, communicates an oscillating circular motion to the distributors, through the intermediate connexions, and the seed in the hopper E, agitated and caused to run down off the inclined end of the distributors into the conducting tubes and from thence into the soil.

Claim.—The combination and arrangement of the bar L^2, levers L^1, horizontal feet *l*, and set screw O, with the cylindrical seed-distributors F, the whole being constructed, arranged, and operated in the manner described, and for the purpose set forth.

No. 19,514.—Aaron Ring, of Westbrook, Me.—*Improvement in Seeding Machines.*—Patent dated March 2, 1858.—The machine is operated in the following manner. The bag-hopper is filled with seed, the crank is then turned with the right hand, and the slide in the bottom of the hopper is then moved back, which will allow the seed to run freely into the revolving head, thence it will fly out of the distributing tubes spreading as it falls.

The inventor says: I do not claim sowing seed by centrifugal force, for that has been done before. Neither do I claim the distributing tubes in and of themselves alone, for they have been used in sowing seed broadcast.

Neither do I claim the bag-hopper in and of itself, neither do I claim the crank in and of itself alone, neither the shaft separate and alone, nor the slide at the bottom of the hopper, neither do I claim the revolving head alone.

But I *claim* the combination of these substantially as and for the purpose set forth.

No. 19,859.—Isaac B. Lutz, of La Fayette, Ind.—*Improvement in Seeding Machines.*—Patent dated April 6, 1858.—This invention is chiefly designed for sowing seed broadcast among standing corn, and consists in the means employed for distributing the seed, and in a peculiar arrangement of the seed-boxes and shares so that they are rendered capable of adjustment, to enable the implement to be expanded or contracted while in motion, to conform to the varying widths of the rows of seed.

The inventor says: I do not claim the adjustable bars D, separately, nor do I claim broadly the employment of screw rods for discharging the seed from the seed-boxes

But I *claim* the rotating rods K, provided with two screw threads placed in reversed positions, and so arranged as to discharge the seed at both ends of their seed-boxes G, substantially as and for the purpose set forth.

I further claim the seed-boxes G G H, attached respectively to the adjustable bars D, and beam A, and provided with seed distributing screw rods, operated from the driving wheel B, through the medium of the gearing *m n q j j j*, substantially as set forth.

No. 19,839.—Joseph Frey, of Battle Creek, Mich.—*Improvement in Seeding Machines.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The device of using a screw with double thread, coarse and fine alternately, in the bottom of the seed-hopper, in combination with the oscillating hand lever and the eccentric pivot, to force the seed through the holes in the perforated bottom of said seed hopper, by means of the compound oscillating motion of the screw.

No. 19,871.—Thomas A. Risher, of Circleville, Ohio.—*Improvement in Seeding Machines.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the combination of the bar and plates with the double-holed bottom and the reciprocating slides, as this I have patented.

But I *claim* the peculiar arrangement of the bars B B^1 B^2 B^3, with the right and left screws E E^1, slides a^1 and a^2, with its stirrer O, for the purpose of regulating the quantity of grain with uneven slides, as described.

No. 19,872.—Thomas A. Risher, of Circleville, N. Y.—*Improvement in Seeding Machines.*—Patent dated April 6, 1858.—In the operation of this machine, power being applied to the handles *d d*, the slides are set in motion and working between the two bottoms B and X the seed passes from the upper bottom through its apertures into the apertures in the slides, and as the slides alternate and their apertures pass over the wedge-shaped piece *n n* of bottom B, the seed is discharged on alternate sides of the wedge *n n* and passes into the discharge spouts below.

Claim.—The peculiar arrangement of the bottom B as constructed with the rock slides *c c c c*, handles *d d* and *e e*, rods *h h*, set-screw *a*, and bottom *x*, all operated in the manner set forth and for the purpose described.

No. 19,902.—Charles F. Anderson, of Charlestown, N. H.—*Improvement in Seeding Machines.*—Patent dated April 13, 1858.—This invention relates to an improvement in that class of Seeding Machines in which the distributing devices are combined for the purpose of distributing different kinds of seed by one and the same mechanism; and the invention also relates to a peculiar device for making the hills at certain points, and to a novel arrangement of means for elevating the body of the machine so that the seed-conveying tubes and shares may

be readily elevated from the ground while the machine is being drawn from place to place, or at any time when the distribution or planting of seed is not required, while the machine is in motion, as in turning at the end of rows.

The inventor says: I *claim*, first, actuating the seed slides Q R, by means of the shaft K, operated from the wheel P^1, by the spur wheel J, pinion L, beveled or made of double oblique form on its outer side, the tube or collar *i*, provided with the pin *o* and the zig-zag groove in the shaft K and the spring c^1, the above parts being arranged to operate as and for the purpose set forth.

Second. The latch or catch W, connected with the slides Q R, and used in connexion with the sliding collar M, and the boss or shell *o* on shaft K, substantially as and for the purpose set forth.

Third. The blade or scraper f^{11} attached to the rod e^{11}, and actuated when desired by means of the spindle z^{11}, shaft d^{11}, link c^{11} and spring g^{11}, substantially as and for the purpose specified.

Fourth. Raising and lowering the frame E of the machine by means of the eccentrics C C^1 attached to the axle A, in connexion with the straps D D and clutch *f*, substantially as and for the purpose specified.

No. 20,162.—James F. Kierstead, of La Porte, Ind.—*Improvement in Seeding Machines.*—Patent dated May 4, 1858.—The object of this broadcast sower and coverer is to prevent the distributing device from becoming choked; to insure a perfect and even movement of the same, and one that may be regulated to discharge more or less seed from the hopper in a given time as required; and further to obtain a perfect covering device, one that will conform to the inequalities of the ground and be under the perfect control of the driver.

The inventor says: I do not claim separately the adjustable perforated bar E, nor the reciprocating bar G, with its pendents *h* attached, for such devices or their equivalents have been previously used.

But I *claim* the reciprocating bar G, provided with the pendents *h*, and the adjustable perforated bar E, in combination with the bar L, the parts being arranged relatively with each other and the discharge openings *c*, so as to operate as and for the purpose set forth.

No. 20,301.—Luther Robinson, of Melrose, Mass.—*Improvement in Seeding Machines.*—Patent dated May 18, 1858.—This invention is chiefly designed for planting seed in hills and check-rows, and at the same time to distribute, at the time of planting, a fertilizing material in the hills with the seed, the whole being so arranged as to insure the perfect distribution of the seed and fertilizing material and to place the machine under the complete control of the attendant or driver. There are also drag chains to enable the driver to plant in parallel rows.

Claim.—The perforated reciprocating slide K, in combination with the supplementary or auxiliary perforated slides *h h i i*, one or more pairs, operated substantially as shown, for the purpose set forth.

No. 20,357.—Joseph McCammon, of Dayton, Ohio.—*Improvement in Seeding Machines.*—Patent dated May 25, 1858.—This invention consists in a peculiar means employed for distributing seed, whereby

the seed is prevented from arching and packing in the hopper and seed box, and presented in a proper manner to the seed apertures, the size of which may be graduated so as to sow a greater or less quantity of seed in a given space.

Claim.—The blades *b* attached to the rotating shaft D, which is placed within the hopper or seed box A, and arranged substantially as set forth, in combination with the adjustable slides F G H, and concave bottom E; the whole being arranged to operate as and for the purposes set forth.

No. 20,358.—G. W. L. McMillen, of Dayton, Ohio.—*Improvement in Seeding Machines.*—Patent dated May 25, 1858.—This invention consists in the employment of regulating slides, a gauge and a shaker, arranged and operated, so that the discharge of the seed may be regulated as desired, and the device prevented from being choked or clogged.

Claim.—The employment or use of the shaker G, placed between the rotating flanges E E, and operated by the curved rod F, and cam C; the sliding plates J M, gauge K, and cylinders D D; the whole being combined and arranged to operate as and for the purpose set forth.

No. 20,366.—A. M. Pratt, of Lowell, N. Y.—*Improvement in Seeding Machines.*—Patent dated May 25, 1858.—This is a novel arrangement of the furrow and covering shares with the seed-distributing shaft, in order that the seed-distributing device may be thrown out of gear simultaneously with the elevating of the furrow and covering shares, and by the movement of a single lever, so that the machine may be rendered inoperative when desired.

The inventor says: I do not claim the seed-distributing device, for that is in common use, and well known.

But I *claim* attaching the furrow and covering shares F D respectively to shafts E C, which are allowed to turn in their bearings, and are connected by the rods *k l* to the lever J, when said parts thus arranged are used in connexion with the shaft *i* attached to the lever J, crank *h* and lever I, which support one end of the seed-distributing shaft H; the whole being arranged to operate as and for the purpose set forth.

No. 20,575.—Daniel B. Neal, of Mount Gilead, Ohio.—*Improvement in Seeding Machines.*—Patent dated June 15, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The peculiar arrangement of the gauge slide *e*, the screen *d*, and the pin *p*, with the bottom *g*, and seed slide G, for the purpose of regulating the quantity of seed to be discharged, and at the same time preventing straws or chaff from choking the slides, as is fully set forth.

No. 20,547.—Samuel Burnside, of Reading, Ohio.—*Improvement in Seeding Machines.*—Patent dated June 15, 1858.—In this machine,

the seed slide D conveying tube K and hoe J, are so arranged that the seed is deposited in hills, covered, and the hills marked, the several parts acting automatically as the machine is drawn along. The machine is designed for planting seed in check rows, and to facilitate sowing in this way.

The inventor says: I do not claim separately the reciprocating seed slides D, for they are in common use; nor do claim the hoes J separately.

But I *claim* the movable conveying tubes K, with hoes J attached, in combination with the seed-slides D, the above parts being operated and for the purpose set forth.

No. 20,643.—Samuel F. Jones, of St. Paul, Indiana.—*Improvement in Seeding Machines.*—Patent dated June 22, 1858.—This is a novel arrangement of the parts composing the seed distributing device, whereby the operator has full and perfect control over the same, without regard to the draught movement of the machine, and also that the seed may be deposited in the exact spot wished by the operator.

The inventor says: I do not claim separately any of the parts, or when viewed irrespective of the arrangement shown and described for attaining the desired end.

But I *claim* the slides M I J, arranged, respectively, within the box E and tubes F G, and operated through the medium of the tube S, shaft P, pendent O, and rods N L K, as shown and described, for the purpose set forth.

No. 20,656.—William Morehouse, of Davenport, Iowa.—*Improvement in Seeding Machines.*—Patent dated June 22, 1858.—This is an improvement in that class of seeding machines by which the seed is planted in hills and in check rows, two rows being planted at the same time. The invention consists in a novel means employed for operating reciprocating seed-slides and markers, whereby the distribution or stopping of the seed is placed entirely under the control of the driver.

The inventor says: I am aware that markers have been previously used and arranged similar to the ones described; I therefore do not claim the markers separately considered. Nor do I claim the reciprocating seed-slides F, nor the seed conveying tubes S, for they have been used.

What I *claim* is, the cams J attached to the axle I, and laterally moving rods K M, attached, respectively, to the shafts H *g*, the seed-slides E being attached to the shaft H by rods G, and the shaft *g* being attached to a slide *z*, the above parts operating as and for the purpose set forth.

I also claim the markers *n* attached to the frame N, when said markers are used in connexion with the cams J and rods M K for operating the seed-distrbutiing device, and the whole arranged to operate as and for the purpose set forth.

No. 21,162.—S. R. Weldon, of Winnebago Station, Illinois.—*Improvement in Seeding Machines.*—Patent dated August 10, 1858.—

This invention relates to an improvement in that class of seeding machines which are designed for sowing seed broadcast. It consists in the employment of a seed box, formed with two compartments, and arranged with a slide, adjustable flap, and discharge orifice, so as to insure the perfect distribution of the seed, and to cut off the discharge when necessary.

Claim.—Dividing the hopper C into two equal compartments *a b*, and using a slide F to graduate the opening *a* between them, when the hopper thus arranged is used in combination with the rotating seed-distributing wheels K, flap or back-board G, and the double walls *f g*, all arranged to operate as and for the purpose set forth.

No. 21,152.—T. R. Richmond, of Masillon, Ohio.—*Improvement in Seeding Machines.*—Patent dated August 10, 1858.—This invention relates to that class of seeding machines which are designed for sowing seed broadcast, and consists in a novel distributing device, whereby the seed is dropped or discharged from the seed-box in a continuous stream, and by a simple arrangement.

The inventor says: I am aware that perforated seed-slides are an old device, and have been used in various ways; but I am not aware that a series of slides have been used in connexion with perforated caps and plates, so arranged as to discharge continuous streams of seed. I do not claim separately, therefore, the employment or use of perforated seed-slides.

But I *claim* the reciprocating slides I, operated as shown, in combination with the caps K and plates I^1; the above parts being perforated, and arranged substantially as and for the purpose set forth.

No. 21,252.—Joseph Fowler and F. M. Bacon, of Ripon, Mass.—*Improvement in Seeding Machines.*—Patent dated August 24, 1858.—This invention consists in a seed distributing device for scattering or sowing the seed in connexion with a drag or harrow attachment, whereby the seed will be evenly sown and properly covered with earth, and all the parts placed under the perfect control of the operator or attendant.

Claim.—The combination of the rotary perforated cylinder E, board H, and toothed bars I, arranged for joint action, as described.

No. 21,273.—D. B. Kieper and A. C. Fox, of Texana, Texas.—*Improvement in Seeding Machines.*—Patent dated August 24, 1858.—This invention consists in the employment of a perforated endless band, which is fitted in a seed box and arranged for distributing seed, in connexion with a reciprocating rotary agitator, and an adjustable plate K, for the purpose of preventing the seed from clogging, and insuring the proper discharge of the seed from the same box.

Claim.—The combination of the endless band F, oscillating arms *h*, and adjustable plate K, arranged relatively to each other, as shown, whereby the seed is properly agitated and kept, when reduced in the box A, within the path or reach of oscillation of the arms *h*.

No. 21,257.—PAUL HILDRETH, of Beloit, Wis.—*Improvement in Seeding-Machines.*—Patent dated August 24, 1858.—This invention is intended to sow seed broadcast, and is called a broadcast seed sower. It is operated by means of the driving wheel E, which is attached to the motive power by shaft and wheel, and connects with the revolving distributing cylinder by shaft and cog-wheel, as seen at D, and connecting also with shaft of feed-augers 1 by pulleys and belts, as seen at F H.

The inventor says: It is the arrangement of the cone or graduated pulleys F and H, and the feed-augers 1, in connexion with the revolving distributing cylinder *b*, and the distributing adjustable feeder C, that I *claim* as my invention, and no more.

No. 21,354.—LEWIS MOORE, of Ypsilanti, Mich.—*Improvement in Seeding-Machines.*—Patent dated August 31, 1858.—The nature of this invention consists in the combination of the zigzag strip projecting from the bottom of the reciprocating bar with an adjustable gauge plate, which has different sized seed cells, and a hopper having oblong slots or discharge passages in its bottom.

Claim.—The combination of the zigzag strip D projecting from the bottom of a reciprocating bar C with an adjustable gauge plate B, which has different sized cells *b c*, and with a hopper A having oblong slots or discharge passages *a* in its bottom, substantially as and for the purposes set forth.

No. 21,389.—ALEXANDER TURNER, REDDEN BESS, and HENRY SLOAN, of Franklin, Indiana.—*Improvement in Seeding-Machines.*—Patent dated August 31, 1858.—The nature of this invention consists in the peculiar construction of a plough and arrangement of a seeding apparatus connected therewith. The plough passes ahead of the seed boxes, and is altered and changed to suit the different kinds of seed which it may be desirable to sow.

Claim.—The arrangement of the seed boxes B and C, the seed slides *d* and *e*, rod H, wheels G and F, and ploughs J J, in the manner specified and for the purpose set forth.

No. 21,375.—JOSEPH D. SMITH, of Lancaster, Ohio.—*Improvement in Seeding-Machines.*—Patent dated August 31, 1858.—This invention consists in the combination of a peculiar seed distributing device and a device for forming the necessary furrows to receive the seed, with a peculiar arrangement of the framing whereby the device is allowed to conform to the inequalities of the ground, and the seed distributing portion elevated free from the ground when desired, as in moving from place to place, or in turning at the ends of rows, &c.

The inventor says: I do not claim, broadly, the employment of two wheels for opening the furrow, the seed being dropped between the wheels.

But I *claim* the arrangement and combination of the spout R, wheels M, frame H, and frame D as and for the purposes shown and described.

No. 21,349.—J. B. McCormick, of Versailles, Kentucky, and William R. Baker, of Boston, Mass.—*Improvement in Seeding-Machines.*—Patent dated August 31, 1858.—To the underside of the frame E two plates or shares H H are attached. These plates or shares are placed, one by the concave side of each wheel G. The front ends of the shares are rounded and they fit within the shoulders *b* of the wheels, said shoulders serving as a protection to the shares. The back ends of the shares are covered a little outward so as to form a sort of mould board *c* to make the necessary furrows.

Claim.—The arrangement and combination of the rotating wheel G with the stationary plates or shares H substantially as and for the purpose shown and described.

No. 21,350.—E. L. Lyon, of East Randolph, New York.—*Improvement in Seeding-Machines.*—Patent dated August 31, 1858.—This invention consists in the peculiar construction and arrangement of the seed-distributing devices as applied to the wheels, whereby the seed may be planted evenly in check rows or in parallel drills in an expeditious manner.

The inventor says: I do not claim broadly, attaching seed-distributing devices to wheels.

But I *claim* the sliding seed boxes F attached to the radial bars E, and outer end pieces *a* of the seed boxes, being provided respectively with the recesses *e f d*, and the outer ends of bars E projecting beyond the peripheries of the wheels, the whole being arranged for joint operation substantially as and for the purpose set forth.

I also claim in combination with the above-named parts, the covering shares H, arranged substantially as described.

No. 21,314.—Thomas J. Bottoms, of Thomasville, Georgia.—*Improvement in Seeding-Machines.*—Patent dated August 31, 1858.—In the operation of this invention the seed is placed in the hopper *b* and pass down through a hole or chamber *p* in the beam. The slide *o* is so constructed that it can be moved forward or backward so as to enlarge or diminish the size of the hole in the beam. The front shovel opens the ground and the rear shovels cover the seed. When the seed fall through the beam they are caught on the grain spreader and scattered broadcast. The spreader is used only when small seeds are sowed broadcast. The valve *m* is pressed up against the hole by means of the spring *c* at all times, except when opened by the eccentric pins in planting.

Claim.—The eccentric pin *i*, lever *d*, spring *c*, valve *m*, spreader *n*, rag pin *l*, slide *o*, and hopper *b*, the whole arranged and operating as described for the purposes specified.

No. 21, 323.—Smith Conklin and George Newton, of Sterling, Vermont.—*Improvement in Seeding-Machines.*—Patent dated August 31, 1858.—This invention consists in the arrangement of a seed-distributing device with the peculiar means employed for regulating the discharge of the seed therefrom.

Claim.—The inventors say: We do not claim broadly a perforated

reciprocating slide without reference to the form or shape of the perforation and the gauge or regulating bar H, for such device is common to many classes of seeding-machines.

But we claim the arrangement and combination of the plate F, guides C, bars G H, and box E, as and for the purposes shown and described.

No. 21,452.—Samuel Stanbro, of Salem, Mich.—*Improvement in Seeding-Machines.*—Patent dated September, 7, 1858.—The object of this invention is to overcome the defects in the measuring conveyor and diminish the cost of its construction, and the invention for effecting this object consists in the application of a twisted cord as conveyor in connexion with a series of curved bridges through which the cord vibrates, which forms a cheap conveyor and measurer that can easily be replaced when worn out.

Claim.—The application of a twisted cord, in combination with measuring tubes, arranged substantially as described, for the purpose of measuring and delivering the seed.

No. 21,595.—George C. Bunsen and Cyrus Roberts, of Belleville, Ill.—*Improvement in Seeding-Machines.*—Patent dated September 28, 1858.—This invention relates to an improvement in that class of seeding-machines designed for sowing seed broadcast or in drills.

The inventors say: We *claim*, first, the employment or use of the cylinder G provided with the step-like projections *j j* between circumferential flanges *h h*, oblique partitions *i* and zigzag grooves *k*, said cylinders being fitted within a cylindrical case F at the bottom of box D, and having a reciprocating rotating motion, as and for the purpose set forth.

Second. The arrangement of the adjustable tubes K attached to the arms J the rollers g^x and cutters i^x, whereby both the cutters and tubes may be adjusted as described, and the pressure on the cutters graduated as desired, as also the depth of the furrows made by the cutters.

No. 21,780.—Andrew Simmons, of Nora, Ill —*Improvement in Seeding-Machines.*—Patent dated October 12, 1858.—This invention consists in making the seed-slide of a corrugated form, with seed openings at its edges, and on opposite sides of its ridges, or corrugations, so that the grain is carried from the hopper at both motions of the slide, but will not waste out when the slide is at rest.

Claim.—Forming the seed-slide of a corrugated plate, and making the seed-openings therein at the edges and on opposite sides of the ridges or corrugations, substantially in the manner and for the purpose set forth.

No. 21,850.—Marshall S. Root, of Medina, Ohio.—*Improvement in Seeding-Machines.*—Patent dated October 19, 1858.—In this invention there is an arm P extending horizontally from rod O and backward, against which a bent arm Q which is inserted into the wheel D acts as an inclined plane against the arm P as the wheel revolves upon

the ground. This action of the bent arm Q against the arm P opens the slider N at regular intervals, the intervals being such as to sow the seeds at the required distances apart. The opening of the valve or slider N allows the seed to escape through the orifices in the bottom of the seed-box at *b g*. In order to close the orifices through which the seeds pass a coiled spring R is introduced, which by its elasticity moves back the slider N, the movement is relieved from the pressure of the bent arm Q.

Claim.—The bent arms Q Q, arms P and U, rod O, and spring R, when these several parts are arranged as described for operating the corn planter and sower, and combined with the revolving harrow, as set forth.

No. 21,807.—A. G. Babcock, of Galesburgh, Illinois.—*Improvement in Seeding-Machines.*—Patent dated October 19, 1858.—The nature of this invention consists in the arrangement of two rollers placed on a center shaft, the right hand roller being made fast to the shaft on which is supported a frame composed of two side and four cross timbers.

Forward of the rollers is placed a grooved cylinder, of the same length as the rollers, extending across the frame and supported by it, and at a sufficient distance from the rollers to admit the drags. Immediately over it is placed a hopper with an aperture in the bottom extending its whole length, through which the grain is discharged immediately into the grooves of the cylinder. Back of the cylinder is an apron which extends partly around the cylinder and terminates at the most dependent point. Beneath the lower edge of the apron is placed a guide plate by which the grain is conveyed to certain points.

Claim.—The described arrangement of the form rollers A A, grooved cylinder D, elastic wipers 3, hopper E, guide plate H, drags *i*, and windlass K, when constructed as and for the purpose set forth.

No. 21,995.—Joseph Walton, of Delaware, Ohio.—*Improvement in Seeding-Machines.*—Patent dated November 2, 1858.—The inventor says: I mount the drive wheel A, rotary disk B, and hopper upon any convenient frame, in such a manner that the top surface of the disk B may be horizontal, or nearly so, when at work, and the centre of the disk directly beneath the throat L of the hopper ; on the top of the surface of the disk I place wings *c c c* with their outer edges tangent to a small circle seen in fig. 3. The partition N N, I place at an angle of 60° with the line of draught. The gate, or valve, H I, for regulating the flow of grain from the hopper, I make with a semicircular disk three-sixteenths of an inch smaller than the throat L, which I make about six inches in diameter. The gate is raised or lowered by the screw K.

Claim.—The rotary disk B, in combination with the throat L, the partition N N, the valve H I, the finger E, and the grass seed hopper, when the whole are arranged and combined for joint operation as set forth.

No. 21,969.—Hermann Kaller, of Perry, Ill.—*Improvement in Seeding-Machines.*—Patent dated November 2, 1858.—To the front part of frame A, and at each side, a tube F is attached, said tube being secured by bolts *a*. These tubes may be formed by having metal plates *b* attached to the wooden standards *c*, the plates *b* projecting back of the standard so as to form the tube. To the front sides of the standards *c* the furrow shares G are attached, one to each, and at the upper part of each tube F a hopper H is placed. Directly below each hopper H a cylinder I is placed, and both cylinders are placed on opposite ends of a shaft J, which extends across the machine.

Claim.—The cylinders I I, provided with the seed cells d^1, having the slides *e* attached and arranged within the tubes F, and relatively with the hoppers H, to operate as and for the purpose set forth.

No. 21,958.—Aaron Hatfield, of Petersburg, Ill.—*Improvement in Seeding-Machines.*—Patent dated November 2, 1858.—The nature of this invention consists in the particular manner in which is arranged the seeding devices, and in which they are operated for drilling in grain and sowing it broadcast, one or both at the same time, and whether between corn rows or otherwise.

The two seed boxes F and D are similarly constructed, only that they have no plate corresponding to the additional bottom plate *v* in the seed box E, and have each a notched plate *x* instead of the slide *s*, which plates, *x*, however, can be adjusted similarly my means of stirrups, nuts, and screws *y* so as to cover up the holes *j* of the seed tubes *g f*, to a greater or less extent, and thereby to allow passage to corresponding quantities of seed or grain. The seed hoppers D E F are arranged for drilling in the seed or grain, whilst that (C) at the rear of the machine is arranged for sowing broadcast. They may be differently arranged, if desired.

Claim.—The arrangement of the seed hoppers represented in combination with the mechanism for driving the seed slides and dropping the grain or seeds, and covering them as described and shown.

No. 21,959.—W. Y. Henry, of Monmouth, Illinois.—*Improvement in Seeding-Machines.*—Patent dated November 2, 1858.—This invention relates to an improvement in that class of seeding machines which are designed for planting seed in check rows, and consists in a peculiar arrangement whereby the seeding device, markers, and shares are placed under the complete control of the driver, and the operation of planting seed in check rows greatly facilitated.

Claim.—Connecting or arranging the levers or rods M M, of the pestles or weights *h*, and the levers I, of the tubes H, substantially as shown, when used in combination with the wheel *i*, connected with the slide Q, and the whole arranged to operate as and for the purpose set forth.

No. 22,208.—John W. Vandiver, of Shelbyville, Missouri.—*Improvement in Seeding-Machines.*—Patent dated November 30, 1858.—This invention consists in a peculiar seed scattering device placed within the seed conveying tubes, and arranged so that the seed may

be scattered in the hill as it is dropped; so that the seed of each dropping will be planted in the hill as it is dropped at suitable distances apart, most favorable for its growth and cultivation.

Claim.—The bars or rods *j*, pivoted within the said conveying tubes E, and having elastic plates *l l* attached, the upper ends of said bars or rods being connected with the vibrating plates F, of the seed distributing device, substantially as and for the purposes set forth.

No. 22,184.—Daniel Markham, Austin S. Markham, and David Eldred, of Monmouth, Illinois.—*Improvement in Seeding-Machines.*—This invention consists in a peculiar manner of arranging two seed distributing devices in one and the same hopper, whereby seed may be planted in check rows, in drills, or broadcast as may be desired.

Claim.—The arrangement of the rotating shaft F, provided with distributing wheels *i*, having buckets attached to the slide bar G, the plate I, and adjustable strips or bottom *h*, substantially as shown, whereby seed may be planted from the same seed-box, either in drills, check rows, or broadcast as may be desired.

No. 22,180.—R. W. Hunt and M. Kennedy, of Galesburgh, Ill.—*Improvement in Seeding-Machines.*—Patent dated November 30, 1858.—A represents a horizontal frame, which is mounted on two wheels B B, and C is a draught-pole attached thereto. On the back part of the frame a driver's seat D is placed, and to each side of the frame a bar *a* is attached by a joint *b*, the front ends of the bars being attached to the under side of the frame. The back of each bar *a* is attached by a pivot *c* to a bar *d*, and the upper end of the bars *d* are pivoted to bars *e e*, which are pivoted to frame A. The upper ends of the bars *d* are attached to a transverse bar *f*.

Claim.—Arranging the levers *i* and plates *j*, which form the dropping device, with the levers *m m* in the tubes *g*, as described, whereby the above named parts are rendered capable of being operated simultaneously by the simple action of the bars *u* on the ends of the levers *i*.

No. 22,171.—Warren Drummond, of Woodbridge, N. J.—*Improvement in Seeding-Machines.*—Patent dated November 30, 1858.—This invention relates to an improved seed-distributing device. It is designed for planting seed in hills or drills, more especially for planting in hills, checks, and rows, and is intended to prevent the clogging or choking of the seed-distributing device, and also the breaking of the seed as the seed-cells are drawn underneath the cut-off.

Claim.—The elastic rollers K arranged relatively with the slides J, to operate as and for the purposes set forth.

No. 22,339.—John Badger, of Baileyville, Ill.—*Improvement in Seeding-Machines.*—Patent dated December 21, 1858.—This invention consists in the employment or use of a series of circular plates and stirrers fitted on a rotary shaft, which is placed in a seed-box provided with a slotted bottom and a slide; the whole being arranged whereby the seed may be sowed evenly in a broad-cast manner, and

the amount of seed to be sowed in a given area of ground graduated as desired.

Claim.—The circular plates I and stirrers *h*, attached to the rotating shaft F^1, within the seed-box C^1, arranged and combined with the slotted bottom D and slide E, substantially as and for the purpose set forth.

No. 22,374.—Albert W. Morse, of Eaton, N. Y.—*Improvement in Seeding-Machines.*—Patent dated December 21, 1858.—To the rear of box *b* is attached a seeding box *f* with tubes *c c c*, motion is communicated to the rod *d* by means of band E, which runs on grooved pulleys *g*. The seeding box *f* is attached to box *b* by hooks *h*. The said box *f* can be removed when the clod-crusher or roller is used as a compressing roller for pulverizing the ground when it is not desirable to sow seed. When a seed sower is wanted without a clod-crusher or roller, the intermediate wheels *m* are removed, and the external wheels m^1 and m^2 retained, as shown in fig. 3, which is a rear elevation view of the machine.

Claim.—The arrangement of the hopper *f* with the rollers *g g*, belt or strap E, rollers *m*, and rings *a*, as described, for the purposes set forth.

No. 22,418.—Joseph Fowler and F. M. Bacon, of Ripon, Wis —*Improvement in Seeding-Machines.*—Patent dated December 28, 1858. This invention relates to an improvement on the seeding-machine patented by these inventors August 24, 1858, and consists of an improvement in the seed-distributing device whereby the seed may be more evenly distributed or planted than by the patented machine above alluded to.

Claim.—The reciprocating perforated slide H and perforated roller G, in connexion with the inclined board J, the whole being arranged to operate as and for the purpose set forth.

No. 22,190.—S. Minnich, of Hopewell, Ohio.—*Improvement in Apparatus for Holding Sheep.*—Patent dated November 30, 1858.—The nature of this invention relates to the construction and adaptation of a couch upon which sheep are placed while being shorn of their fleece.

The couches in which the sheep are secured while being shorn are two in number, and are formed exactly alike. They consist of three longitudinal pieces each, seen at D D^1, E E^1, and F F^1, the pieces D E F forming one couch, and D^1 E^1 F^1 forming the other. They are alike, both in structure and office.

Claim.—The adjustable couches D E F and D^1 E^1 F^1, in combination with the neck piece I and extension levers M L, arranged and operating in the manner and for the purpose set forth.

No. 20,585.—David R. Reed and James E. Chapman, of Castile, N. Y.—*Device for Holding Sheep while being sheared.*—Patent dated June 15, 1858.—This invention consists in the employment or use of a concave bed G and rotating adjustable wheels E E, whereby sheep

may be securely held and properly and readily adjusted while being sheared, so as to greatly facilitate the operation of shearing.

Claim.—The adjusting wheels E E and bed G, fitted to a suitable base A, and arranged substantially as and for the purpose set forth.

No. 19,431.—WILLIAM H. MAY, of Alexandria, Va., and CHARLES W. COONTZ, of Winchester, Va.—*Improvement in Machine for Sowing Fertilizers.*—Patent dated February 23, 1858.—The nature of this invention consists in arranging a series of vertical wooden shafts E, armed with radial metal stirring arms K K^1, with in a guano or fertilizer hopper of a seed drill, the stirrer arms being attached by means of screws *c* on their ends, which allow of their attachment and detachment in a ready manner; and the lower ends of the shafts being encircled by a metal ferrule J, which prevents the splitting of the same when subject to great strain, and when being bored or punched to receive the arms. The arms of the shaft revolve horizontally.

Claim.—The combination of a metal ferrule or thimble J, wooden shaft E, and metal stirring arms K K^1, when said ferrule is arranged on the lower end of the shaft, and the stirring arms furnished with a screw thread, and connected with and fastened to the thimble and shaft, substantially as and for the purposes set forth.

No. 21,181.—LYMAN BICKFORD, of Macedon, N. Y.—*Improvement in Machines for Sowing Fertilizers.*—Patent dated August 17, 1858.—This invention consists in forming the part of the hopper through which the distributing apertures are made, and also the slide or slides by which the size of the apertures is regulated, of thin metallic plates or other fit material, or of plates of metal or other material shaped to an edge, so that a thin or sharp edge bounds the sides of the apertures, which severs and detaches particles from the mass, and causes the passage through the apertures of the substances sown, and permits these substances to pass the apertures obliquely as well as otherwise.

Claim.—The inventor says: I do not claim as my invention the formation simply of distributing apertures in the bottom of a hopper of a machine for sowing fertilizers, seeds, or other things, for such are employed in the machine for which letters patent were granted to Warren S. Bartle, April 22, 1856, and in other sowing-machines.

But I claim a hopper bottom A, formed of sheet metal or its equivalent, in which are arranged apertures *a*, constructed as set forth, when combined with a series of vertical stirrers *k*, and a slide or slides *b*, arranged on the inner side of the bottom A, in the manner and for the purposes substantially as described.

No. 21,803.—JUDD STEVENS, of Marengo, Illinois, assignor to Himself and JOHN L. BEADLE, of said Marengo.—*Improvement in Spading Machines.*—Patent dated October 12, 1858.—The nature of this invention consists in the employment of mechanism by which the spade is given a sliding and turning motion, for raising and discharging the earth, similar to the manipulation of that implement by human hands.

Claim.—The inventor says: I claim jointing or hanging the spade

K to the wheel A, in such a manner that in the forward motion of the machine it will remain in proximity with the periphery of the wheel until the lifting of the earth commences, when it shall pass outwards, or slide upon its bearing, thereby acting more efficiently to raise and disintegrate the soil, substantially in the manner and for the purpose set forth.

I also claim the combination and arrangement of the tripping lever H, with the spade *b*, substantially as and for the purpose described.

No. 22,473.—Carlos W. Glover, of Farm Ridge, Illinois, assignor to Himself, Bronson Murray and J. Van Doren, of La Salle county, Illinois.—*Improvement in Stacking Agricultural Products.*—Patent dated December 28, 1858.—This invention consists in forming a stack of any material out of two, three, four, or more lengths of the material which overlap, or break joint with each other, the heads all pointing to a common center, and so arranged that when the radial sides of the spread out material are drawn together and bound, a conical or pyramidal stack shall be formed.

Claim.—Making a stack of two, three, four, or more lengths of straw, or other material that overlap and break joint with each other, and which are laid with their seed ends pointing to a common center and communicating at the apex, and ending at the base, and drawn together and secured, substantially as represented, using a foundation to build upon an apron, or binding cords and chains as set forth.

No. 22,475.—John Van Doren, of Farm Ridge, Illinois, assignor to Himself, Bronson Murray and Carlos W. Glover, of La Salle county, Illinois.—*Improvement in Stacking Agricultural Products.*—Patent dated December 28, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The so placing of two, three, or more layers of stalks or straws in a box or former as that they shall break joint with each other, beginning at the apex and so continue until one-half of the stack is formed, and then reversing the operation and laying them from the base to the apex, for the other half of the stack, so that when bound up they shall form a stack shingled on its outside to protect the interior, substantially as described and represented.

No. 19,430.—James H. Maydole, of Eaton, New York.—*Improvement in Machines for Gathering Stones.*—Patent dated February 23, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, so constructing the scoops, and so arranging them in reference to, and in combination with, the other parts, that they will strike the earth and stones directly endwise in passing over the apron, and as they rise be turned or rotated to retain the stones, as described.

Second. So constructing the fingers of the scoops and so arranging them in connexion with those of the apron that they shall cover the fingers of the apron instead of the spaces between them, as set forth.

Third. The combined adjustment of the carriage and of the scoops

upon it described, by which the apron and scoops may be maintained at different angles at the same height, or at the same angle at different heights from or in the ground, or both varied at pleasure, as set forth.

No. 20,774.—G. W. Bishop, of Brooklyn, N. Y.—*Improvement in Machines for Gathering Stones.*—Patent dated July 6, 1858.—This invention consists in having a receptacle or box A mounted on wheels, and having an inclined plane D at its front end, the wheels of the box having rods attached ; said rods are connected to a scraper F which works over the inclined plane, and which scraper, by means of springs or drop-guide G G, in connexion with the rods, is made as the machine is drawn along, to draw up the stones into the box.

Claim.—The box A provided with the inclined plane D, and used in connexion with the reciprocating scraper F, and spring guides G G or their equivalents, the whole being arranged to operate as and for the purpose set forth.

No. 20,038 —Peter S. Clinger and Cyrus Cremer, of Conestoga Centre, Pa.—*Improvement in Straw and Stalk Cutters.*—Patent dated April 27, 1858.—The manner in which to work this machine is, first to cause the cylinder to revolve by means of a belt running around the pulley I from a horse or other power ; then take a bundle of stalks and drop them lengthwise into the trough K, from whence they will fall on the stationary knives A A A, and by action of the knives B B B or spikes C C C on the revolving cylinder each stalk will be cut into four parts, and each part will then fall into the concave beneath, and by the action of the teeth on the revolving cylinder and the teeth in the concaves the stalks will be torn apart in the direction of the fibre, and will be delivered beneath the machine.

The inventors say : We do not claim the invention of a revolving cylinder or stationary concaves with knives, teeth, or spikes, but we are not aware that they have ever before been combined for the purpose specified.

What we *claim* is, the revolving toothed cylinder H, armed with knives B and spikes C, in combination with the stationary knives A and toothed concave E, constructed to operate conjointly as and for the purpose set forth.

No. 22,117.—Carlos W. Glover, of Farm Ridge, Ill.—*Improvement in Straw Carriers.*—Patent dated November 23, 1858.—This invention consists in combining with a series of vertically and horizontally moving bars, for carrying forward and upward the stalks, the spring guide and holder, to prevent said stalks in their greatest ascent from slipping back or getting entangled.

Claim.—In combination with a series of bars *a b*, having the motions described, the spring shield for aiding to guide the stalks or other thing conveyed thereon, and preventing their falling back or becoming entangled, substantially as set forth.

No. 19,200.—Jacob H. Mumma, of Harrisburgh, Pa.—*Improvement in Straw Cutters.*—Patent dated January 26, 1858.—The object of

this invention is to divest corn stalks of adhering soil, crush, and then cut them into short pieces for food for cattle; also to be used as a straw cutter.

Claim.—The arrangement of the feed rollers e e^1, operated on by tappets o o, crushing cylinder d d^1, provided with gum springs n n, cutter bar g and h, and cutter l l, substantially in the manner and for the purposes set forth.

No. 19,462.—Thomas H. Willson and Daniel T. Willson, of Harrisburgh, Pa.—*Improvement in Straw Cutters.*—Patent dated February 23, 1858.—This improvement relates more especially to that class in which yielding feed rollers are used to crush the straw or stalks, and carry the same to rotary cutters, whose axis of revolution is parallel to the axis of the feed rollers, and in which the motion of the feed rollers is derived directly from the cutter shaft.

The inventors say: We *claim,* first, the arrangement of axis of the driving pinion to the yielding feed roller above the axis of said roller as described, when said yielding feed roller vibrates in vertical guides for the purpose set forth.

Second. Constructing the feeding trough with inclined openings in its bottom, arranged as described, in order to facilitate the passage of the dirt, and prevent the short pieces of fodder from escaping.

Third. Constructing the lower feed roller with openings in its periphery for the escape of the dirt or other hard materials which collect upon it during the passage of the fodder between the rollers.

Fourth. The combination of the longitudinal ribs on the lower feed roller with the openings in its periphery for the purpose described.

No. 19,425.—W. O. Hickok, of Harrisburgh, Pa.—*Improvement in Straw Cutters.*—Patent dated February 23, 1858.—This invention consists in the employment of a reciprocating serrated plate G, in connexion with rotating cutters h, so arranged that straw, corn stalks, and other substances usually cut by such machines, are cut expeditiously. Crushing rollers J K are used in connexion with the cutters.

The inventor says: I do not claim the feed rollers E F.

Nor do I claim, broadly, the crushing cylinders J K, nor the rotating cutters h.

But I *claim,* first, the reciprocating serrated plate G, in combination with knives h, arranged to operate substantially as and for the purpose set forth.

Second. The toothed crushing cylinders J K, rotating with different speed, in combination with the plate G and knives h, the whole being arranged substantially as and for the purpose set forth.

No. 19,779.—W. W. Hollman, of Eddyville, Ky.—*Improvement in Straw Cutters.*—Patent dated March 30, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The combination of the movable bottom, when constructed as set forth, with the cam shaft C, cams A and B, and connecting-rod D, for giving a projection of straw under the knife by raising the lever W, said projection being gauged and furnished by the upward

and downward motion of the lever, in the manner and for the purpose set forth.

No. 19,895.—Joseph B. Okey, of Indianapolis, Indiana, assignor to Himself and W. Y. Wiley, of Marion county, Indiana.—*Improvement in Straw Cutters.*—Patent dated April 6, 1858.—*a* is a double feed box; B a drum or wheel; C a slot for the screw D to operate through; G is a gauge plate; F F are knives or cutters.

Claim.—The combination and arrangement of the box *a*, gauge G, knives F F, or their equivalents, upon the drum or wheel B, when constructed and arranged substantially as set forth.

No. 19,952.—E. P. Russell, of Manlius, New York.—*Improvement in Straw Cutters.*—Patent dated April 13, 1858.—This invention consists in an improvement in that class of straw and stalk cutters in which a reciprocating knife is made to work over the end of the feed trough, or box, for the purpose of cutting the straw or stalks. Also, in the peculiar manner of hanging the knife, and the means employed for feeding the straw or stalks to the knife.

Claim.—The arrangement of the knife B, and feed rollers K L, when attached for operation, and arranged relatively with the feed box A, substantially as and for the purposes set forth.

No. 19,935.—John K. Landis, of Lancaster, Pa.—*Improvement in Straw Cutters.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* a yielding bed or bottom in the feeding trough or box, connected to and depressed by the lower feeding roller as it is forced down by the material fed into the machine, substantially as described.

And, in combination with the above, I claim the rotary cutting apparatus arranged to receive the cut fodder and cut it still finer, as described.

No. 20,103.—John Tittle, of Johnstown, Pa.—*Improvement in Straw Cutters.*—Patent dated April 27, 1858.—This invention consists in the peculiar means used for operating the feed rollers and regulating their movement, and the mode of hanging and operating the knife; also, in the use of a pressure bar for holding the straw or other substance firmly down upon the bed at the end of the feed box, so that the knife can act upon the straw or other substance to be cut.

The inventor says: I *claim* the arrangement, substantially as shown, of the knife G, with its arms or levers F F^1, when connected for operation conjointly with the feed rollers I J, pressure bar K, and feed box A, in the manner and for the purpose set forth.

I also claim in combination with the lever *n*, pawl *m*, bar *o*, and curved portion *r*, the sliding bar M, arranged as shown for the purpose specified.

No. 20,224.—Solomon P. Smith, of Crescent, N. Y.—*Improvement in Straw Cutters.*—Patent dated May 11, 1858.—In the engraving A

is the straw box mounted upon a frame K. The mouth B is provided with a fixed metallic shear plate D along its lower side for the knife E, fast on the arm C, to work against. L is a recoil spring, arranged so as to enable the operator to employ the surplus momentum of the knife-arm to cause the return of the same to its elevated position *o*, (figure 2,) ready for a new stroke.

Claim.—The arrangement of the arm C, knife E, and recoil spring L, with straw box A, when constructed for operation conjointly in the manner and for the purpose set forth.

No. 20,361.—Oren Moses, of Malone, New York.—*Improvement in Straw Cutters.*—Patent dated May 25, 1858.—The journals *c c* of the tooth feeding roller F, are received into the slots *m m*, in the guard plats *g g*, and in the upper ends of the legs *h h;* the said journals *c c* are connected to the driving shaft *a* by means of the properly perforated metallic plates *e e*, which are received into recesses between the guard plates *g g*, and the inner side of the upper portions of the legs *h h*, which allows the roller F to rise and fall without changing the distance from driving shaft *a*, or interfering with the working of the gearing.

Claim.—The inventor says: I am aware that a toothed vibrating feeding roller has been used in straw cutters in conjunction with a rigid cleaning comb, and therefore I *claim* the arrangement of the bridle pieces or connecting plates *e e*, attached to cleaning comb *d*, with driving shaft *a*, and journals *c c*, of feeding roller F, the whole being constructed for operation conjointly with feed-box A, rest *l*, shaft *b*, disk T, and knives *l*, in the manner and for the purposes set forth.

No. 20,582.—Charles P. Perry, of Norristown, Pa.—*Improvement in Straw Cutters.*—Patent dated June 15, 1858.—This invention relates to improvements in that class of straw cutters in which revolving knives, a feed roller, and a plain roller are used. This invention consists in so connecting and gearing together the shafts of the said cutters and rollers by peculiar combination and arrangement of links and cog-wheels that the feed roller may yield and change its position as regards that of the plain roller, without disturbing the movement and operation of the machine.

The inventor says: I do not claim the upward cut of the knives, neither do I claim, broadly, allowing the feed roller *d* to yield more or less from the roller *e*, and at the same time to continue its rotary motion.

But I *claim* the shaft E, with its pinions J, the shaft Z, with its wheel R, and the spindle P, with its pinion K, when the said shafts are linked together, and the said wheels and pinions are arranged with respect to each other substantially as and for the purpose set forth.

No. 20,958.—Robert Sinclair, jr., of Baltimore, Maryland.—*Improvement in Straw Cutters.*—Patent dated July 20, 1858.—The claim and engraving explain the nature of this improvement.

Claim.—The described arrangement of the teeth *a a* upon the masticating and propelling cylinder *b*, constructed with the nodular projections on either side, and operating like molar teeth to propel and crush the fodder, as set forth.

No. 21,110.—Darius Babcock, of Dryden, New York.—*Improvement in Straw-Cutters.*—Patent dated August 10, 1858.—On each axis is a shaft *a* of the feed rollers D D a lever F is placed, said levers being allowed to turn or work freely on the shafts, and to each lever a pall G is attached, the palls catching into the ratchets E. On each lever a sliding collar *b* is placed, said collars being secured at any desired point by set screws *c*. To each collar *b*, a connecting rod H is attached, and to the upper ends of these rods are attached a crank wheel *d*, by one and the same pin *e*. The crank wheel *d* gears into a wheel I, which is placed at one end of a shaft J at the upper end of the framing A. On the shaft J, at about the centre, a bevel wheel K is placed.

Claim—Operating the feed rollers D D through the medium of the levers F F, rods H H connected with said levers by means of the sliding collar *b*, palls G G, and crank pully *d*, arranged substantially as described and for the purposes specified.

No. 21,954.—Oliver C. Green, of Dublin, Indiana.—*Improvement in Straw-Cutters.*—Patent dated November 2, 1858.—This invention relates to a straw-cutter, having a V-shaped box, armed with knives at its front end, adapted to cut shear-wise with the knife on the sliding gate, and consists in a certain arrangement of parts to facilitate the operation of cutting.

Claim.—The described arrangement of the hinged connecting rod P, lever G, spring H, pin I, sliding gate D, and oblique knife E, with the V-shaped knives *b* at the ends of the trough B, for the purpose set forth.

No. 21,970.—James Lashbrooks, of Rockport, Indiana.—*Improvement in Straw-Cutters.*—Patent dated November 2, 1858.—This invention consists in placing series of toothed circular blades on parallel rollers fitted within a hopper, the blades being arranged relatively with each other, and with the clearing prongs, so that the desired work may be done rapidly without danger of clogging or choking the machine.

Claim.—The two rollers B B, provided with the circular toothed blades C, in combination with the clearers *b*, the whole being arranged to operate as and for the purpose set forth.

No. 22,072.—Wilson Green and Malcom McFisher, of Chattanooga, Tenn.—*Improvement in Straw-Cutters.*—Patent dated November 16, 1858.—A is the treadle, B the knife, *a* the connexion of the knife with the lever or treadle, C the double-leafed wooden spring, and *c* the connexion of the lever with the spring which elevates the knife; D is a leather strap on the end of the treadle, forming a stirrup in which the right foot is placed to adjust the spring to raise the knife

should it, from any cause, become wedged between the jaws when the cut is made.

E is a lever worked with the right hand, and serves to press the straw firmly into the box while being cut, causing the knife to cut much easier; F is an upright in which both levers work; G is a board attached to the treadle, moving up and down in front of the knife, regulating the length of cutting the straw.

Claim.—The arrangement of the treadle A, leather strap D, the regulating board G, and knife B, combined with the double-leafed lever C, lever E, and upright standard F, for joint operation, as set forth and described.

No. 22,207.—Peter Vandesande, of Rochester, N. Y., assignor to Himself and Martin Vanderwen, of Rochester, N. Y.—*Improvement in Straw-Cutters.*—Patent dated November 30, 1858.—The thread of the worm or screw H is deeply cut, and the spur teeth on the wheel I are permanent, so that the variation in the position of I, as the gate rises, does not throw it out of gear.

Claim.—Operating the feed rollers I J by means of the worm H on the shaft of the cutter-wheel, when combined to the adjustable feed gate K, pressure plate L, and weighted lever M, for regulating the pressure of the feed, and preventing the choking of the rollers, and keeping the straw uniformly compressed at the point of cutting during the progress of the knife, substantially as set forth and described.

No. 22,336.—Olive Ann Brooks, of Somersworth, N. H., administratrix of the estate of Lebbeus Brooks, deceased, late of Great Falls, N. H.—*Improvement in Straw-Cutters.*—Patent dated December 14, 1858.—This invention will be understood by an examination of the claim and engravings.

The inventor says: It is not intended to claim a rotary cutter cylinder and a roller for the cutter to work against, to feed and cut straw; nor is it intended to claim the feeding and cutting straw in the manner described in the specification of the United States patent numbered 13,807, wherein the knife has a compound motion composed of two circular motions, and operates in conjunction with a roller; nor is it intended to claim a rotary cutter cylinder or set of cutters and a swinging bed operating together, as shown in the United States patent 12,699; nor is it intended to claim a straw-cutting machine, as constructed in such a manner that its bed and knife shall each operate with a compound motion as described in the United States patent numbered 18,084.

But what is *claimed* as the invention of said Lebbeus Brooks is, an improved straw-cutting machine, as constructed of two cutting knives or shears I M, or their equivalents, and so that while one of them, when the machine is in operation, shall have a compound motion whereby its cutting edge shall be made to move in an elliptical path toward and away from the trough B, the other shall have only a reciprocating motion in a circular arc toward and away from the said trough, the lever frame carrying the lower knife or bed being made

to turn on a fulcrum rod or its equivalent, and to be connected with the upper knife by means or mechanism essentially as described.

Also, the application to the upper knife, having a compound motion as dèscribed, of a toothed rake N, to operate therewith and facilitate the feeding of the straw forward in manner as specified.

No. 20,976.—Leonard Ellig, of Mill Creek Township, Lebanon county, Pa., assignor to Andrew Garret, of Myerstown, Pa.—*Improvement in Straw-Shakers.*—Patent dated July 20, 1858.—The slide cap *a* is so constructed as to slide up and down the side-boards *m* m^1 and secured at any place. The movable bottom *w* is perforated for the purpose of relieving the grain from the straw, and is suspended on four arms at any desirable angle. The arms are of equal length.

The inventor says: I *claim*, first, the movable bottom *w* in combination with the arms 4 and 5 and spring *p*, as set forth in the specification.

Second. The movable cap *a*, adjusted as described and for the purpose set forth.

No. 21,111.—N. J. Becker and J. M. Harvey, of Amsterdam, New York.—*Improvement in Machines for Threshing and Separating Grain.*—Patent dated August 10, 1858.—The nature of this invention consists in a novel combination of parts operating in unison for actuating the threshing cylinder, blast fan, straw carrier, and separating screens, by one and the same main driving belt, in a positive and advantageous manner; in a new mode of means for changing the direction of the blast to operate portions of the separator and transverse of the grain through the machine to suit heavy or light grades of grain; and also in causing the reciprocating perforated bed and conducting board of the straw carrier to give an accelerated motion to the serrated bar frame of the carrier simultaneously with the travel of the bed, but in reverse directions to it, for the more effectual separation of grain in the straw and escape of it to the conducting board of the separator, and for more regular and rapid discharge of the straw.

The inventors say: We *claim* the combination of the swinging arm or arms S S, straw carrier brackets or projections *m m*, elbow lever T, connecting by links *n p* the swinging arm S to the separator, pitman *v v* operated by crank pin from the fan shaft to drive the swinging arm S, and fan and threshing cylinder pulleys D E, arranged substantially as described, and driven by the same band or belt as set forth.

We do not claim the combination of a reciprocating or independently moving perforated straw carrier with a stationary bed plate, but as gearing the serrated bar frame G to the perforated bed plate H and conducting board I, that said latter portion shall give an accelerated motion to the bar frame G simultaneously with but in reverse directions to the travel of the bed plate, essentially as and for the purposes set forth. Providing the feeding throat of the thresher or thresher concave with a dust spout or outlet Z above, and furnishing the cylinder race with a dust passage X in front, under the feed table, as shown and described.

No. 19,148.—P. W. Mills, of Conneaut, Ohio.—*Improvement in Threshing Machines.*—Patent dated January 19, 1858.—This invention consists of a ribbed threshing cylinder, having one end of greater diameter than the other, and a corresponding concave in combination with a winnower, for the purpose of threshing and winnowing grain at one operation, and for delivering the straw from the tail of the screen in regular order for binding. The heads of grain and butts of the straw being conducted abreast from their entrance of the machine to their delivery.

Claim.—The ribbed cylinder D having one end of greater diameter than the other, with the corresponding concave E, when employed in connexion with the winnower, provided with the screen N, for the purpose of threshing and winnowing grain, and delivering the straw at the tail end of the machine, in regular order for binding, as set forth.

No. 19,865.—John R. Moffitt, of St. Louis, Missouri.—*Improvement in Threshing Machines.*—Patent dated April 6, 1858.—This improvement consists in the construction and arrangement of the frame H, in which the multiplying gearing, which imparts motion to the threshing cylinder, whereby the said gearing is maintained in position for effective action, in any condition of the machine.

Claim.—The construction and arrangement of the metallic gearing frame H, provided with arms *h h*, and attached to the machine, substantially as explained.

No. 20,449.—Hamilton E. Smith, of Philadelphia, Pennsylvania.—*Improvement in Threshing Machines.*—Patent dated June 1, 1858.—This invention consists in arranging the concave E of a threshing machine, in respect to the spiked roller G, in order that the stalks of the grain may pass freely and unbroken, while the heads are being acted upon by the cylinder D and concave E.

Claim.—Arranging the concave of a threshing machine in respect to the spiked roller, substantially as set forth, in order that the grain may be operated in the manner specified.

No. 21,214.—Samuel D. Reynolds, of Lane, Illinois.—*Improvement in Threshing Machines.*—Patent dated August 17, 1858.—To obviate the necessity of preliminary band cutting, and enable the sheaves of wheat or other grain to be fed directly into a threshing machine, is the object of this invention.

This is accomplished by placing in suitable bearings a cutting and spreading cylinder A immediately in front of the threshing cylinder B, of a threshing machine, and imparting a rotary motion to the said cutting and spreading cylinder, by any suitable means, either by banding or gearing. The band cutting in this machine is performed by a series of blades *d d*, which radiate from the central portion of the cylinder A, and whose cutting edges may be of such shape as will enable them to perform their work in the most perfect manner.

The inventor says: I do not intend to limit myself to a single series of band-cutting blades upon the periphery of the cylinder A, for the reason that I may find it expedient to combine several series of cutting

blades and spreading teeth with the periphery of said cylinder. The said cutting and spreading cylinder may be used in conjunction with any description of threshing cylinder.

I *claim* arranging a band-cutting and stalk-spreading cylinder, with the threshing cylinder of a threshing machine, substantially in the manner set forth.

No. 21,963.—Abram Jackson, of Lebanon, Tennessee.—*Improved Threshing Machines.*—Patent dated November 2, 1858.—This improvement relates to travelling threshers and winnowers, and is intended to be employed with a common farm wagon. It consists in the mode of gearing or attaching the thresher and winnower to the wagon, and also in the mode of supporting the frame of the former upon the axles of the wagon, which forms the driving power.

Claim.—The arrangement of the band wheels D upon the spokes of the wagon wheels, in connexion with the hounds F, substantially as described for the purposes set forth.

No. 22,141.—Moses D. Wells, of Morgantown, Virginia, and Harrison Hagans of Brandonville, Virginia.—*Improvement in Threshing Machines.*—Patent dated November 23, 1858.—The nature of this invention consists in the combination of a peculiarly notched rib, with a bifurcated spike upon the cylinder.

Claim.—The combination of the bifurcated spikes *a* of the cylinder, with the peculiarly notched ribs R of the concave, operating together as described.

No. 20,892.—Job E. Owens, Clark Lane, and Elbridge G. Dyer, of Hamilton, Ohio.—*Improvement in Endless Chains for Threshing Machines.*—Patent dated July 13, 1858.—This invention consists in forming a chain out of malleable cast iron links of two forms, each of the alternate links being exactly alike and capable of being united into a chain without heating, and without any pieces or parts which are not cast with it, and a part of the link itself.

Claim.—A chain composed of two different kinds of malleable cast iron links, when constructed in all their parts, as represented, for all the purposes mentioned in the specification, and when the alternate links of chains are the duplicates of each other throughout the series, and the two kinds of links united in the manner and for the purposes set forth.

No. 20,474.—Peleg Barker, of Moscow, Michigan.—*Improvement in Machine for Measuring, Registering, and Receiving Grain Direct from Threshing Machines.*—Patent dated June 8, 1858.—The manner of using the machine consists of setting it on the ground or floor beside the threshing machine in such a manner that the spout from the separator shall be placed in the hopper, and when one measure is full it is removed by shoving in the other measure, which pushes the full one out of the left end of the machine, the measure being then taken up, and the end of the bag being drawn over the end of the measure,

the latch is touched by the finger which opens the door and empties the measure.

The inventor says: I *claim* the combination and arrangement of the parts, substantially as described, for receiving, measuring, and registering grain direct from threshing machines.

I also claim in combination with the machinery for registering, substantially as described, two or more measures or boxes, constructed and operated as described, for receiving the material to be measured.

No. 21,628.—F. W. Bobinson, of Richmond, Indiana.—*Improvement in Riddles for Threshing Machines.*—Patent dated September 28, 1858.—In other riddles, while the lips or tongues turn up, pointing backward, in this invention they turn downward and forward, and while these are left for the purpose of preventing the straw and chaff from passing through the riddle, in this invention they are for the purpose of deflecting the wind upward, thereby lifting the straw and chaff, and separating them from the grain; the wooden slats being used to prevent the passage of the chaff and straw.

Claim.—The plate C, with lips or tongues *c c c c*, as shown and described, in combination with slats B B B B, for purposes set forth.

No. 21,367.—F. W. Robinson, of Richmond, Indiana.—*Improvement in Straw Carriers of Threshing Machines.*—Patent dated August 31, 1858.—The object attained by this invention is the prevention of the straw from passing down through the endless chain of slats and choking the riddles.

The platform F forms a sort of diaphragm immediately below the upper part of the endless chain of slats D, closing the entire area of the interior of the straw carrier.

The inventor says: I am aware that a platform or table has been previously combined with one endless chain of slats, in a manner somewhat similar to mine, though for a dissimilar object, as in the case of J. C. Birdsall's clover huller, of May 18, 1853; such parts, therefore, of themselves, I do not claim.

But I *claim* the combination of the perforated platform F, with the endless chain of slats D, in the manner and for the purposes set forth.

No. 19,357.—Josiah Foster, of Sandwich, Mass.—*Improvement in Tree Protectors.*—Patent dated February 16, 1858.—The nature of this improvement will be understood by referring to the claim and engravings.

The inventor says: I do not claim surrounding the trunk of a tree by a trough to contain a liquid, and so that such liquid may present an impediment or barrier to the passage of insects or worms across the trough.

But what I do *claim* is arranging the trough around the tree so that there may be a clear space for the passage of insects or worms between it and the tree, and suspending the said trough from the body of the tree by means of an elastic or flexible elastic cover of cloth or other suitable materials, extending around and affixed at its upper edge or part to the trunk of the tree, and at its lower edge to the trough, the

whole being substantially in manner, and so as to operate as and for the purposes above specified.

I also claim in connexion with a flexible cover applied to the trunk of the tree as described, making the circumventing trough in two or more sections or separate troughs so jointed or applied together at their abutting ends as to be capable of being tipped, so as to enable their contents to be discharged in manner as set forth.

No. 21,057.—W. H. Angel and M. Coffeen, of Watertown, N. Y.—*Improvement in Wheat Separators.*—Patent dated August 3, 1858.—The object of this invention is to separate the perfect grains of wheat from all impurities, which is effected by an arrangement of perforated plates; in this arrangement mainly this invention.

The inventors say: We *claim*, first, the arrangement of the three perforated plates, having holes of the same diameter or area, and placed at the same inclination with the fourth perforated plate, having holes of a less diameter or area than the other plates, and at a greater inclination, as set forth.

Second. We claim the spring bar or rod P and yoke R, in connexion with the plates Z and bars N, at the other end of the plate box, for giving to the plate box the compound motion, as described.

No. 19,615.—Henry H. Beach, of Philadelphia, Pa.—*Improvement in Grain Winnowers.*—Patent dated March 16, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the bottom delivery board F, having one or more series of fingers at its lower end, when the same is vibrated in a vertical direction, the blast of air from the fan acting upon the fingers in the manner described and for the purposes set forth.

Second. The combination of the series of inclined planes S S^1, with the shoe O, and fingers M M^1, when arranged in relation to each other, and to the cover B and partition C, as described, for the purpose of deflecting the blast of air from the fan and directing it through the riddle and through the fingers, as set forth.

No. 19,905.—Alfred Belchamber, of Ripley, Ohio.—*Improvement in Chaff Screens for Winnowing Machines.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim forming chaff screens for winnowers by punching sheet metal plate, so that burs may be formed and turned up, for this has been previously done.

But I *claim* constructing the screen of sheet metal plates or strips *a*, bent or turned over at one edge, and slitted or cut at the opposite edge, so that portions *c d* may be bent up as shown, the plates being secured in the frame or between the sides A A, so as to overlap each other, and the whole arranged substantially as and for the purpose set forth.

No. 21,087.—Joseph H. Riggs, of Gloucester, Mass.—*Improvement in Ox Yokes.*—Patent dated August 3, 1858.—The object of this inven-

tion is to retain all the advantages of lightness, cheapness, and durability possessed by the common yoke, and yet render the point of draught adjustable.

A is the yoke with its bows made similar to those in common use; to the lower end of the yoke is attached a rack *a;* this may be a simple plate of metal cast of the required form and of a width equal to the yoke. Another rack *b*, the teeth and grooves of which correspond to those of the rack *a*, is furnished with lips or flanches *c*, which are turned up on each side and lap over the edges of the rack *a;* these lips are notched out at the middle of their length to receive a staple *d*.

Claim.—The racks *a* and *b*, arranged and operating in the manner substantially as set forth, for the purpose specified.

No. 21,392.—George W. Weeks, of Boston, Massachusetts.—*Improvement in Ox Yokes.*—Patent dated August 31, 1858.—The nature of this invention consists in making ox yokes and bows hollow, of iron or other suitable material, so as to be as light and strong as possible. B B are the bows, H the draught ring, and F the link.

Claim.—Making ox bows and yokes of iron or other suitable material, hollow, substantially as described, for the object specified.

II.—METALLURGY.

No. 22,245.—Lewis Solomon, of New York, N. Y.—*Improved Amalgamator.*—Patent dated December 7, 1855.—This invention consists in constructing a machine in such form and manner as to prevent the mercury used in the amalgamation of ores from flowing along the lower side of the cylinder in advance of the ore, and insure a more thorough searching of the ore by the mercury.

The inventor says: I *claim*, first, the use of elongated amalgamating chambers I, when arranged to operate in the manner and for the purposes specified.

Second. The arrangement of the amalgamating chambers I within a heated chamber A, for the purposes specified.

No. 19,246.—Joseph H. Fisher, of Placerville, California.—*Improved Gold Amalgamator.*—Patent dated February 2, 1858.—This invention consists in placing a cylinder E, having a face of silver or other metal which readily amalgamates with mercury, within a wheel D, which is placed in a box B, the face of the wheel being open or formed of bars or slats *g*, and the whole arranged so that the wash from the crusher is made to fall upon the silver face *j* of the cylinder.

The inventor says: I *claim* the employment of a rotating cylinder, having its face or periphery of silver or other suitable metal, and placed within a wheel D, or arranged in any suitable or equivalent way, so as to receive the wash from the crusher, and unite, by amal-

gamation, the globules of alloy that escape with the wash from the crusher, as described.

No. 21,204.—Samuel Longman, of Brooklyn, New York.—*Improvement in Amalgamating Gold and Silver.*—Patent dated August 17, 1858.—The inventor, in describing his improved amalgamating machine, says: It is composed principally of an annular trough A to receive the metallic substance to be treated together with the quicksilver, and a water cylindrical roller or edge-runner B, which is fitted to turn on a horizontal axle C, which is attached to a vertical shaft D, which rotates in the center of the trough A, and carries the roller round and round the trough. The shaft D has also attached to it two scrapers or agitators *a b*, which stir the contents of the trough in front of the roller; while the roller is passing over the substances behind the scrapers work them together.

The inventor says: I do not claim as my invention the machine herein described, and I do not confine myself to the use of my particular machinery or apparatus in performing my invention.

I *claim* masticating or kneading, in the manner set forth, the dry mataliferous powder of the gold and silversmith's sweeps, scraps, and polishings, or the native precious metals, when so prepared with quicksilver, when sprinkled with barely sufficient water to cause the mass to agglutinate.

No. 19,901.—Herrick Aiken, of Franklin, N. H.—*Improvement in Awls and Tools.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the form, shape, construction, combination and arrangement of the set of awls and tools, (twenty in number,) as described in the specification and represented in the drawings, for the purpose of connecting them with a handle, having a receptacle in the large end to contain the said awls and tools, and a socket and gripe secured in the other, and to confine and hold the several awls and tools for use as occasion may require.

I also claim making the shanks of the awls and tools square with parallel sides serrated and equal in size, for the purpose of inserting them into a gripe connected with a handle, the shanks being serrated so that the gripe will hold them more firmly for use than if the shanks were made plane without the serrating; and these improvements in awls and tools I claim when used in any kind of socket and gripe for holding and changing them.

No. 20,957.—George Reynolds, of Manchester, N. H.—*Improved Machine for Making Axe Polls.*—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim broadly the method described of manufacturing an axe poll, by compressing a bar of metal between dies or swages projecting from the face of the rolls in which they are set. Neither do I claim as new the use of a die provided with a groove or recess in which the head of the axe poll is to be formed.

But I *claim*, first, the use of a drawing die D^1, provided with pro-

jections o o^1 o^2 o^3, or their equivalents, substantially as described, so that the blank of metal when subjected to compression shall be thereby drawn out furthest at the corners, whereby the bit can be more completely welded into the poll, and the eye of the axe in consequence be made more perfectly, as set forth.

Second, I also claim making the lower die D, with a recess or groove across its face, of the form substantially as described, so that the metal which forms the head of the axe poll shall be thereby crowded toward the edges of the head instead of being piled into a ridge in the middle, and at the same time a greater proportion of metal be forced into the back of the head, as and for the purposes specified.

Third, I claim the combination of the feeding fingers I I^1 I^2, or their equivalents, with one or more cams J J^1, or their equivalents, so arranged and operated that at the proper moment of time the blank of metal can be by the machine automatically fed between the dies, to undergo the several operations to which it is to be subjected, as described.

Fourth, In combination with the dies or rolls, an adjustable guide S S, and gauge R, either with or without the spring fingers V V, Fig. 7, for the purposes specified.

Fifth, The compressing clamp for holding the axe poll, and shaping the head of the axe, during the operation of bending, constructed and operated in the manner and on the principle substantially as described.

No. 20,780.—Zina Doolittle, of Perry, Ga.—*Improved Machine for Upsetting Carriage Axles.*—Patent dated July 6, 1858.—To operate this machine extend the clutches F F, then place the tire upon the slides I I with the hot part on the rest L, the weight of the tire or axle depresses the slides I I and releases the clutches F F, which strike against the axle, pressing it against the dies G G; then apply one of the hand levers D, which causes the clutches F F to take a firm hold on the iron and compresses it in part; then apply the other hand lever D, keeping the first lever raised in the meantime, and when the iron is sufficiently compressed drop the hand levers D D, and as the springs K K extend the jaws B B, the clutches let go their hold.

The inventor says: I *claim*, first, the arrangement of the centre bar or anvil A L, pivoted jaws B B, and eccentric levers D D, in the relation to one another shown, for the purposes set forth.

Second, The combination with the above of eccentric clutches F F, dies G G, springs H H, and slides I I, substantially as and for the purposes set forth.

No. 19,940.—William Maurer, of New York, N. Y.—*Improved Bar for Securing Bank Vaults.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the attachments of hooks to a sliding piece or bar, broadly, as this has been proposed before.

But I *claim* attaching on the inner side of a movable cross bar, by which vaults or safe doors are secured and strengthened, a sliding piece provided with hooks and so arranged that said sliding piece may be operated after the bar is in its place, for the purpose of firmly con-

necting by means of said hooks the bar with the door and the door frame, or with both doors where double doors are used, in the manner as described.

Secondly, I do not claim the mode of *hinging* a bar to the door or door frame generally.

But I *claim* the arrangement and use of a revolving hinge plate, to which the bar for securing and strengthening doors is attached, constructed in the manner and for the purposes specified.

No. 19,261.—Thomas E. Purchase, of Reading, Pa.—*Improvement in making Railway Bars.*—Patent dated February 2, 1858.—The nature of this improvement consists in forming a hollow or groove in the top layer of the pile, which is to be of sufficient size to form the entire head of the rail, and providing the layer in contact with the top with a projection conforming to and fitting into such groove, or *vice versa.* The shape of the groove is immaterial, the object being to prevent displacement of the layers in charging the pile into the heating furnace.

The inventor says: I *claim* the manufacture of railroad rails from a pile, the top bar of which is of a superior quality of iron, immovable laterally, and sufficiently heavy to give the rail, when rolled, a consolidated head, connecting with the lower layers in the stem of the rail, substantially as set forth.

No. 20,128.—Benjamin Pitcher, of Peoria, Ill., assignor to himself, William Tobey, and John Anderson, of said Peoria.—*Improvement in Bending Mould Boards for Ploughs.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The combination of the stationary die B, with the movable die C hinged to the stationary, and constructed and arranged as described, so that the heated metallic plate subjected to their action is, during the process of being bent into shape, gradually compressed and drawn from its inner to its outer edge, and retained under compression until the entire bending is completed, for the purpose described.

No. 21,638.—James A. Dorman and Joseph E. Stearns, of Worcester, Mass., assignors to James A. Dorman aforesaid.—*Improved Blind Operator.*—Patent dated September 28, 1858.—To operate this improvement after it has been attached to the window frame, grasp the knob E with the hand, at the same time press the head of the rod G in with the thumb; this will push the slide piece H out of the recess *m*, the catch plate D and the shaft will be free to turn in either direction, at the same time it will move the blind in an opposite direction by means of the bevel gears. To fasten the blind, remove the thumb from the head of the rod G, and the spring K will press the piece H into the recesses of the catch plate D, which recesses are so arranged as to hold the blind at any desired place.

The inventors say: We do not claim an inside blind operator as such.

But we *claim,* first, the combination of the rod G, slide piece H, and

spring K, with the catch plate D and knob E, when constructed and operating substantially as described.

Second. The manner of holding the blind down in place by combining with the stud R, the projection S fitting into the recess T, as specified.

No. 22,172.—L. N. Fay and William Mason, of West Warren, Mass.—*Improved Blind Operator.*—Patent dated November 30, 1858.—The object of this invention is to obtain a simple device whereby a window blind, by simply turning a knob, may be opened and closed at the inside of a window, and also retained at any desired point without raising the sash, and the blind slats also adjusted, or opened, or closed by the turning of the same knob when the blind is in a closed state.

Claim.—The spirally flanched plate F, and worm wheel G, when attached to the sill A, and used in connexion with the slotted bar H, stop *q*, and the slat adjusting device formed of the arms *j k*, shaft *i*, and spring *o*, the whole being arranged to operate as and for the purpose set forth.

No. 19,751.—John E. Clokey, of Washington, D. C.—*Improvement in opening and closing Outside Blinds.*—Patent dated March 30, 1858.—The blind is opened and thrown back by pressing the handle O down, (this relieves the lever *d* from the catch *l*,) and then moving the handle horizontally from the side of the frame towards its centre. By removing the downward pressure the lever falls into the catch *k*, and the blind is secured in its open position.

The inventor says: I am aware that blinds and shutters have been opened and closed from the inside by various complicated contrivances; but this I do not claim broadly.

I *claim* the combination of the bent levers *d* with the bars *g*, when they are constructed, arranged, and operated in the manner described and for the purpose specified.

No. 19,891.—John Woolman, of Philadelphia, Pa.—*Improvement in Door Bolts.*—Patent dated April 6, 1858.—The nature of this invention consists in the use of a flat or elliptical bolt, confined in a casing or straps of such shape and construction as to allow said bolt, after being entered to its required place for fastening in the catch or socket to be moved with an eccentric motion, by means of a handle or lever, from its position when so entered to any required angle with said surface, so as to draw firmly together the respective surfaces to which the said bolt, and the socket for receiving it are attached, and holding them in that position.

Claim.—The arrangement of the flat or elliptical bolt A, contained and moving within suitable straps or casings, with an eccentric motion, when operated and moved by means of the handle or lever B, substantially as described.

No. 19,485.—Henry Carter, of Pittsburg, Pa.—*Improved Bolt Machine.*—Patent dated March 2, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, The use of a stationary heading tool arranged centrally to the converging dies, in the manner substantially as described.

Second, The use of a swinging hammer for upsetting the head in combination with the converging side dies and corner dies, arranged and operating substantially as described.

No. 21,279.—Elisha Simkins, of Alleghany, Pa.—*Improved Bolt Machine.*—Patent dated August 24, 1858.—The nature of this invention consists in a mechanical arrangement for adjusting the dies removing the bolts, stopping, starting, and regulating the stroke and force of the hammer; and also in arrangement for relieving the machinery from the concussion produced by the action of the hammer.

Claim.—First, the flexible connecting rod *h* and the arrangement of the cylinder *e*, the spiral springs *f* and nuts *g*, as described and for the purpose set forth.

Second, The arrangement of the lever *i*, the rachet *j*, the bevel wheels *k* and K^1, the screw *y* and the cross head *d*, when used in connexion with the flexible connecting rod *h*, as described and for the purpose set forth.

Third, The arrangement of the compound lever *u* and the pulleys *v*, in connexion with the lever *t* and stop *r*, as described and for the purpose set forth.

Fourth. The arrangement of the stud 15, the stop *r* the levers *p* and *q* and the bolster *l*, as described and for the purpose set forth.

No. 20,149.—George W. Devin, of Ottumwa, Iowa.—*Improved Ring Bolt.*—Patent dated May 4, 1858.—The nature of this invention consists in the employment or use of a slide bolt A with ring C attached, and used in connexion with a spring D socket or "nosing" and guide.

The inventor says: I do not claim separately a slide bolt and spring, for that is a common and well-known fastening.

But I *claim* the slide bolt A, provided with the spring D, and ring C, and secured to the door substantially as shown, in combination with the socket or nosing E, provided with apertures to receive the shackle of a padlock, the whole being arranged as and for the purpose set forth.

No. 20,940.—Edward Doen, of New Britain, Conn.—*Improved Spring Bolt.*—Patent dated July 20, 1858.—The claim and engravings explain the nature of this improvement.

Claim.—The combination with the guided sliding bolt A and surface-plate B of a loose or freely arranged spring S let into the body of the bolt, and protected or encased thereby for operation on at points some distance apart, and with the bolt and against the surface-plate, substantially as described, for the purpose set forth.

No. 21,910.—C. L. Stevenson, of Charlestown, Mass.—*Improved Machine for Drawing Bolts.*—Patent dated October 26, 1858.—The claim and engravings explain the nature of this invention.

Claim.—A machine for drawing bolts from timber, consisting essentially of the rotating toothed wheel D which is forced up by the bolt by the pressure applied through the roll E or its equivalent.

No. 22,470.—Joseph L. Chapman, of Philadelphia, Pa., assignor to Himself and George Chapman, of said Philadelphia.—*Improved Turn-buckle for Window-blinds.*—Patent dated December 28, 1858.—The object of this invention is to obtain a fastening that will secure window-shutters, or blinds, in an open state without allowing the same to play, or rattle, and at the same time accommodate itself to shutters, or blinds of different thicknesses, and one also that will not be liable to work loose in a building by the action of the shutter or blind upon it when thrown open.

The inventor says: I *claim* the turn-buckle F and sliding-collar D provided with the flanch *b*, and the spring E placed on the spindle, or arbor A, the whole being arranged to operate substantially as and for the purpose set forth.

I also claim, in combination with the abovenamed parts, the washer C placed on the abor A for the purpose set forth.

No. 19,988.—Charles Frampton, of Brooklyn, N. Y.—*Improved Burnisher.*—Patent dated April 20, 1858.—From the quadrant towards the handle, the surface of the burnisher is made nearly flat for the distance of about an inch, commencing at the sharp edge, at one end of the burnisher and continuing the same up over the rounded and flat part thereof towards the handle, two or more grooves are cut rounded in cross section at the bottom, leaving three or more ribs at their sides, rounded in cross section on their tops. These grooves and ribs should be of uniform depth and height throughout, except at their termination towards the handle the grooves should slope up easily into the flat surface. The engravings clearly illustrate the peculiarities of this invention.

Claim.—A burnisher for spinning screws, whose operative extremity is formed substantially in the manner described.

No. 22,452.—James S. Ray, of East Haddam, Conn.—*Improved Burnishing Attachment for Lathes.*—Patent dated December 28, 1858.—The object of this invention is to facilitate the manipulation of the burnishing tool to such a degree that apprentices, females, and inexperienced persons may perform the desired work. A is the bed of the lathe, B B^1 are uprights or heads attached thereto, and C is a mandrel which is fitted in the heads. The lathe is of the usual construction. D is a standard which is attached to the bed of the lathe, a short distance in front of the end of the mandrel C, and a little at one side. To standard D a plate E is attached at right angles, said plate being parallel with the mandrel C, and extending nearly to the head B^1 of the lathe. The standard D and plate E are of metal, and the plate E has a circular opening *a* made through it, said opening having its inner edge about in line with the end of the mandrel. The guide plate F is so attached to the plate E as to admit of being adjusted thereon nearer to or further from the head B^1. G is a

burnishing tool, formed by having a cylindrical head *d*, on a shank *e*, the outer end of the head *d* being flattened at two opposite sides e^1 e^1.

Claim.—The arrangement and combination of the plate E, plate F, spring *k*, mandrel and tool G, as and for the purposes shown and described.

No. 21,304.—Le Roy S. White, of Hartford, Conn., assignor to E. W. Sperry, E. Hurlbut, and J. H. Ashmead, of said Hartford.—*Improved Burnishing Machine.*—Patent dated August 24, 1858.—The nature of this improvement consists in the construction and adaptation of machinery for burnishing spoons and other ware.

Claim.—The holding or rolling jacks H, and the oscillating or vibrating stock F, substantially in the manner and for the purposes described.

No. 22,459.—O. W. Stow, Southington, Conn.—*Improved Burring Machine.*—Patent dated December 28, 1858.—This invention consists in a novel manner of applying the gauge to the instrument, whereby the gauge is permitted to adjust itself with the lower roller, and compensate for all the wear of the journal of the lower roller shaft. The object of the invention is to prevent the difficulty attending the wear of the journal of the lower roller from the gauge, whereby the latter is frequently rendered useless or prevented from performing its proper function.

Claim.—The arrangement and combination of the spring K, gauge I and rollers G H, substantially as and for the purpose shown and described.

No. 21,796.—Edward Clark, of New York, N. Y., assignor to William H. Dolson, of said New York.—*Improvement in Cans for Preserving Paint.*—Patent dated October 12, 1858.—This invention consists in forming a projection all around the interior of the body of the can, near the top and bottom thereof, by forming a groove round the exterior, and dropping the heads on to those projections, and turning the edges of the body over them. In this way the heads may be tightly secured without solder, and the use of untinned sheet-iron is permitted, and a sufficiently durable can or keg is produced at a less cost than a tin can or wooden keg.

Claim.—Attaching and securing the heads to the sheet metal body of the can or keg, by forming a projection round the interior near each end of such body, in the manner described, for the heads to rest against, and turning the edges of the body over the heads after the insertion of the latter, substantially as set forth.

No. 20,635.—Samuel Falkenbury, of Susquehanna Depot, Pa.—*Improvement in Repairing Cast-iron Cylinders.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The uniting the old and new cast iron in the box of steam cylinders, which consists of drilling the broken parts for increase of expanding surface, and the application of a charcoal or other fire to

equalize the expansion previous to pouring the metal, in the manner set forth in the specification.

No. 20,022.—Robert Poole, of Baltimore, Md., assignor to Himself and German H. Hunt, of said Baltimore.—*Improvement in Casting Car Wheels.*—Patent dated April 20, 1858.—The claim and engravings describe the nature of this invention.

The inventor says: I *claim* the base A of the flask made in sections, so that the centre one may be removed without disturbing the remaining one, for the purpose set forth.

I also claim the sectional cope C, so made that either section may be removed without disturbing the other one, for the purposes set forth.

I also claim in combination with the sectional base and cope the central member B of the flask, with a lining of some non-conducting material, substantially in the manner and for the purpose described.

No. 20,151.—David Finley, of Champlain, New York.—*Improvement in Casting Car Wheels.*—Patent dated May 4, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the heating of moulds in an oven or muffle before pouring the metal into them.

Nor do I claim the annealing of castings in their moulds, when that is effected by placing the moulds in an oven, or any receptacle that has been previously heated.

But I *claim* the heating of the knowel and cope of the flask, and parts of the mould contained therein, separately from the chill ring, then putting the whole of the flask and mould together, and either placing it in a box, or its equivalent, and surrounding it with non-conducting material within the said box, and after pouring the metal into the mould, burying the whole in a pit, or omitting the box, surrounding the flask and mould with the non-conductor in the pit, substantially as specified.

No. 20,395.—Oliver T. Wood, of Pittsburg, Pennsylvania, assignor to Thomas R. Wood, of Philadelphia, Pennsylvania.—*Improvement in Casting Faucets.*—Patent dated May 25, 1858.—This invention consists in placing the spigot of the faucet C within a mould A, which is formed for casting the body of the tube of the faucet, so that the body of the tube of the faucet may be cast around the spigot, and the latter accurately fitted thereby in place, without any after work or finishing.

The inventor says: I do not claim as novel the faucets in themselves considered, or as new articles of manufacture.

But I *claim* constructing the faucets by placing the spigots within a mould formed for the tubes of the faucets and casting the tubes around the spigots substantially as shown and described.

No. 20,948.—Conrad M. Lane, of Cincinnati, Ohio.—*Improvement in Casting Hinges.*—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim forming the joint of the hinge by casting teats at the ends of the knuckles of one leaf into corresponding recesses in the ends of the knuckles of the other leaf, for this has been previously done.

But I *claim* casting substantially, as shown, the knuckles *a g*, of the respective leaves B D, so that the inner parts or sides of the knuckles will form parts of cylinders of smaller diameter than the outer parts to admit of the easy moving of the joint without additional labor or finishing as described.

No. 20,951.—Cornelius McGinnis, of Pittsburg, Pa.—*Improvement in Cast-iron Kettles.*—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Constructing the metallic core, as described, of three or more pieces $a\ a^1\ b$, united by bolts *c c c*, so as to be readily detachable, one of which pieces is a narrow central strip, which may be removed after the kettle is cast, and before it is sufficiently cool to remove the entire core, for the purpose of allowing the contraction of the casting without danger of bursting.

No. 19,258.—F. Nishwitz, of Brooklyn, N. Y.—*Improvement in Flasks for Casting Wheels.*—Patent dated February 2, 1858.—This invention consists in providing the flask A B with guides or sockets C D, of metal or wood of a proper size, to receive the shaft F snugly within them, and properly arranged to hold the shaft in its proper place within the mould, independently of the sand, thereby enabling the mould to be made more expeditiously, and the wheel to be cast more truly upon the shaft.

Claim.—The employment of guides or sockets C D, of metal or wood, attached to the flasks to receive and hold the shaft or axle within the sand mould, independently of the sand, substantially as and for the purpose set forth.

No. 20,955.—Edwin H. Perry, of Providence, R. I.—*Machine for making Chain.*—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the combination of a carrier on which the blank link is transported, a die or perforated plate, by which the arms of the links are bent inward, and a forming guide or tube, in which the chain is held and transmitted, as such combination is covered by the patent granted heretofore to Lauriston Towne, October 20, 1857.

But I *claim*, first. The perforated plate F, or its equivalent, in combination with a former for striking up the body of the link, the two so combined performing the function of enabling the link after it is struck up in the die, to be lifted out of the same for the purpose of being deposited in the next position necessary in the formation of the chain, substantially as described.

Second. I claim the arrangement of the slides *p p p*, for bending over the arms of each link after it has been struck up in the die.

Third. I claim constructing the end of the tube wherein the chain

is formed, in the manner substantially as described, so that it shall be enabled to perform the function of grasping the link when deposited in it, and retaining it at the same time, holding it firmly in place while the arms of the under link are being bent over it, as set forth.

Fourth. In combination with said tube, I claim the adjustable contracting collar, for the purpose of regulating the degree of resistance which must be overcome in forming the chain, by means of which the chain can be at pleasure woven more or less compactly, as set forth.

No. 21,362.—Edwin H. Perry, of Providence, R. I.—*Improvement in Machine for Making Chain.*—Patent dated August 31, 1858.—This invention has reference to an improved means of removing the link from the die after it has been struck up for depositing it in the next position necessary in the formation of the chain.

Claim.—The combination of a separating die F F with the tube, wherein the chain is formed, for the purpose of permitting each link of the chain after it has been struck into form to be transmitted to the tube, substantially as described.

No. 19,094.—William J. Lewis, of Pittsburgh, Pa.—*Improved Chain Making Machine.*—Patent dated January 12, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The arrangement of the fork *m* with its groove *n* and springs *o o*, the levers *j j*, with their notched dies *t t*, and the forked springs lever *x*, when operating in relation to each other and to the mandrel E, substantially as described, whereby the bar composing the link is presented in an inclined position to the mandrel E, and closed or bent around the same spirally, and then discharged.

No. 19,955.—Joseph Snelling, of East Boston, Mass.—*Improved Chain Shackle.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim a shackle or chain link made in four separate parts, arranged at right angles to each other, and held together by rivets, screws, and nuts.

But I *claim* the improved connecting shackle or link as made in two parts, A B, and with one of them formed in one piece as a double hook, and with a space *c* between its extremities, and with tenons *d d*, as described, and its other part constructed so as to extend into and fill the said space and lap over the hooks and receive these tenons, substantially as specified.

No. 21,088.—Daniel N. Smith, of Boston, Mass.—*Improvement in Chucks for Centering, &c.*—Patent dated August 3, 1858.—The object of this invention is to produce a machine by which a shaft or other similar article may be centered, or have a hole drilled in its end in the axis of the shaft, and at the same operation have its end turned off square, or in a plane at right angles to the axis of the shaft, or in any other form that may be desired.

Claim.—The described centering tool, consisting of the chuck C D, constructed and operating as set forth, in combination with the shafts G and I, arranged and operating as described.

No. 19,918.—James Eaton, of Townsend Harbor, Mass.—*Improvement in Cop Tubes.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

Claim.—As a new article of manufacture a metallic cop tube, having corrugations or grooves *a a* upon its surface, formed by corresponding knife edges, or their equivalents, upon the face of the die in which the table is made, as set forth.

No. 19,188.—E. L. Evans, of Providence, Rhode Island.—*Improvement in Curry Combs.*—Patent dated January 26, 1858.—This invention consists in forming the teeth of the curry comb, which are connected to India rubber backs, entirely of India rubber or other similar substance, so that the back is not only rendered flexible, but the teeth also.

The inventor says: I do not claim separately the flexible back A.

But I *claim* constructing the curry comb with a flexible back A, formed of India rubber, and flexible teeth *a*, formed of the same material as the back, or other pliable or flexible substance which may be moulded with the India rubber, substantially as shown and described.

No. 19,937.—George W. McGill, of Buffalo, New York.—*Improved Door Fastener.*—Patent dated April 13, 1858.—The teeth *a a* on the crooked blade B are pushed into the door Z. The thumb-screw C is then drawn into the socket *d*, and the door is pulled to. Blade B, being shaped to the jamb of the door, allows it to shut. The gimblet-pointed screw C is then screwed into the jamb, and the door is secured.

The inventor says: I *claim*, first, the formation of the blade B, with its peculiar connexion with blade I.

Second. The use of the blade B, constructed as described, and operating in connexion with screw L, and blade I, and screw C, for the purpose specified.

No. 22,469.—Gilbert Yates, of West Dresden, New York.—*Improved Door Fastener.*—Patent dated December 28, 1858.—The nature of this invention consists in having the bolt (when turned at a right angle) pass through a slot in the face plate, which operation is accomplished by the hinge joint in said face plate.

Claim.—A door fastener constructed of the pieces A A^1 A^{11}, bolt B, keeper C, and slot D, operating as set forth.

No. 22,234.—Henry Hackman, Jr., of Paque, Pa.—*Improved Door Latch.*—Patent dated December 7, 1858.—The frame or latch box D D C, made as usual, having a partition piece B, dividing the interior into a lesser and a greater chamber. The pivot N of the bolt E enters the side A of the frame, supported in the partition B, and projects, with its notched end H, to the spring catch *o* on the door frame plate

S, through the front side C of the latch frame; on the bolt E are two upright levers G G, the external one having a peg, I, resting on the end of the coiled spring K, fastened by a screw N, or otherwise, in the upper inside corner of the end piece A of the latch frame.

Claim.—The revolving bolt E, the lever arms G G, peg I, coiled spring K, the shouldered shank I, and spring catch O, when combined and used substantially as described.

No. 20,570.—George H. Lindner, of Hoboken, New Jersey.—*Improved Fastening for Double Doors.*—Patent dated June 15, 1858.—By this invention the hand bolts or fastenings which have hitherto been employed are dispensed with, and an automatic catch D D, which secures a door by merely closing it, is substituted, the security or fastening being complete when the door to which the catch or lock is attached is closed, and secured to the other door.

Claim.—The catches D D, having cams *b* attached to their inner ends, and arranged with the slides E, having springs *c* placed on them, in connexion with the plate *f* and springs *e*, the whole being applied to the door B, so as to be used in connexion with the fellow door C, substantially as and for the purpose set forth.

No. 20,381.—A. W. Webster, of Waterbury, Conn.—*Improved Attachment for Opening and Closing Doors, &c.*—Patent dated May 25, 1858.—To the inner side of a blind or shutter a projection is attached, to which a pin is secured; this pin is fitted on the outer end of a slotted lever, the inner end of which is of a semi-circular form, provided with teeth which gear into a corresponding lever and pin on another blind or shutter, so that by moving one blind or shutter the other will be operated simultaneously in the same direction.

Claim.—The levers D D, pivoted to the lintel *d* of the casing or sill thereof, the inner ends of the levers gearing into each other, and the outer ends connected by the arms C to the doors or shutters A A, the whole being arranged substantially as and for the purpose set forth.

No. 20,469.—William Daggett, of Troy, N. Y., assignor to A. B. Davis, of New Lebanon, N. Y., and W. H. Tolhurst, of said Troy. *Improved Drill for Gas Pipe.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim*, first, the combination of the light and heavy springs D C and adjustable follower E with the drill spindle B and stock or frame A, substantially as described, for the purpose of controlling and regulating the endwise movements of the drill-spindle, as specified.

And I also claim the clamp F, composed of the adjustable jaws *d d* and foot E, as described, when combined with the drill-stock for securing the latter to gas and water pipes, as set forth.

No. 20,728.—Henry H. Packer, of Boston, Mass.—*Improvement in Hand-Drill.*—Patent dated June 29, 1858.—The mechanism is caused to partially rotate at every forward stroke or vibration of the handle F, while, at every backward stroke, the pall *g* rides over the

ratchet-wheel *c*, leaving the mechanism stationary. By the peculiar construction of the drill with shells A^1 and *m*, the screw-barrel C, with its internal screw-thread, and the male screw B are protected from dust, &c.

Claim.—The combination of the cylindrical shells A^1 and *m* with the feed screw and screw-handle, substantially as and for the purpose specified.

No. 22,085.—Frederick McNair, of Fultonham, Ohio.—*Improved Hand-Drill.*—Patent dated November 16, 1858.—The object of this invention is to obtain a portable hand-drill; one that may be readily manipulated and capable of being more generally adapted to various kinds of work than those previously used. It consists in attaching the frame of the drill, on or in which frame the sliding gate works, to a movable or adjustable bed which is hinged or jointed to a permanent or stationary bed, so that the drill may be used either in a vertical or horizontal position, as the nature of the work may require.

Claim.—The arrangement of the feed-screw F and sliding gate D and frame C in combination with the adjustable bed B, as and for the purposes shown and described.

No. 20,385.—Horace Woodman, of Biddeford, Me.—*Improvement in Power and Head-Drills.*—Patent dated May 25, 1858.—The nature of this invention consists in so constructing a drilling machine that the spindle can be placed on any desired angle and firmly held in place during the process of drilling, and also combining with the hand-drilling machine the pulley and platen, so that it can be used as a power drilling machine.

The inventor says: I *claim*, first, constructing an eye or box in the upper end of the post A, in combination with the hollow shaft B and spindle frame D, arranged substantially as described, whereby the spindle carried by the frame D may be set and operated at any required distance from an angle to the said post A, as set forth.

Second. The combined arrangement of the hollow shaft B, frame D, gears F F^1, and spindles C and G, with their projecting ends, substantially as described, whereby the drill spindle may be driven either directly or through the medium of shaft C and bevel gears, as and for the purposes set forth.

Third. The arrangement of the movable platen or face-plate U with the sliding clamp-jaws W, collar V, and set-screw X, as specified.

No. 22,323.—Robert Wilson, of Milton, Penn.—*Improved Machine for Drilling Metals.*—Patent dated December 14, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first, the adjustable inclined plane, for the purpose of increasing and decreasing the feed of a hand or power-drilling machine for all kinds of metal.

Second. I claim the peculiar construction of the self-acting feed-escapement combined with the adjustable inclined plane, for the purpose of throwing off and on the feed to suit any depth of hole within

its entire descent, and then return again only to the height required within its ascent.

Third. I claim the adjustable bearing against which the lower end of the feed-hand rests, in combination with the involute or scroll and the feed hand which works upon it, for the purpose of producing a safety adjustable self-acting pressure escapement, all substantially in the manner and for the purpose set forth.

No. 22,446.—John Murphy, of Boston, Mass.—*Improved Blind Fastener.*—Patent dated December 28, 1858.—A A denote a pair of blinds, and B a window frame to which they are applied. Each blind bearing two metallic pintles *a b*, fastened to its outer edge, and extending from it. The head *c* of the lower pintle is furnished with a notch or recess *d* arranged in it, as shown in the engravings; the pintle, or that part of it extending below it being made to enter a round bearing or step *x*, formed in a metallic shank C, which projects and is driven into the window frame. The upper pintle works in and is supported by another stepped shank carrier C^1, each of the said shanks being supported by a strut *e*.

The inventor says: I *claim* the arrangement of the spring catch on the pintle step shank, and with respect to the notched pintle, as described.

I also claim combining with the catch and its case, a movable projection or cover, applied so as to be capable of being moved on and off the pintle head, and to carry the thumb projection or stud of the catch, substantially in manner and for the purpose as specified.

No. 19,501.—William H. Forbes, of New York, N. Y.—*Improvement in Sash Fastener.*—Patent dated March 2, 1858.—The device A is composed of two pieces of metal, these pieces are secured together by means of a hinge, or themselves forming the hinge. The lower portion of this device is made perfectly straight and plain, with holes in it for the purpose of securing it to the sash. The upper portion of the device is bent at a right angle at its upper extremity, and is rendered solid and firm by the triangular support X.

Claim.—The described device, marked A, secured to the sash, operated, constructed, and arranged, substantially for the purpose and in the manner set forth and described.

No. 20,238.—Frederick W. Brocksieper and Joseph B. Sargent, of New Britain, Conn., assignors to Stephen B. Cram, of said New Britain.—*Improved Sash Fastener.*—Patent dated May 11, 1858.—In figure 1, C is the striking plate or catch, which is fastened to the top of the lower sash in front of the main sash A; B is the bar which turns on the pivot P, and is made with a hook at the outer end to the hook over the turned up edge of the striking plate C; D is a bolt which by its own weight or by the force of the spring E is forced down, and catches into the hole F; G is the front of the case.

Claim.—The bolt D as an attachment to a sash fastener, operating substantially in the manner as described.

No. 20,405.—Oliver Charter, of Bristol, Conn.—*Improved Sash Fastener.*—Patent dated June 1, 1858.—The nature of this improvement consists in uniting the lift with the fastener in such a manner as to operate at or near the centre of the window.

The inventor says: It is well understood that lifts have been used for the purpose of raising windows, and also that spring fasteners have been used to hold and fasten the window sash; therefore such are not claimed.

But I *claim* the construction and arrangement of the lift A, spring B, thumb-piece F, lever D, and connexion rod E, operating substantially in the manner and for the purpose as described.

No. 20,526.—John B. Witherle, of Upton, Mass.—*Improved Sash Fastener* —Patent dated June 8, 1858.—At the outer end of the lever *d* is a pall or catch g^1, which is hinged to the lever, and is pressed outward or toward the rack *b* by a spring *h* extending from the lever. A retractor K is fastened to the edge of the sash.

Claim.—The combination and arrangement of the retractor K, the pall or catch g^1, the spring *h*, and the lever *d*, applied in the window-sash, and in relation to the rack *b* of the sash-frame, as specified.

No. 20,759.—Solomon Carhart and William Moore, of Brooklyn, New York, assignors to themselves and James H. McWilliams of New York, N. Y.—*Improved Sash Fastener.*—Patent dated June 29, 1858.—The meeting rail of the lower sash is *a*, and *b* that of the upper sash; *c c* are the vertical central bars of the sash, *d* is one-half of a hinged drop screwed on to the upper side of the meeting rail *a*, and *e* is the drop united by the hinge to the part *d*; *f* is a plate screwed on to the bar *c* of the upper sash, beneath the lower edge of which the drop *e* is turned up, when the windows are to be fastened, so that the said drop *e* forms a strut between the two sashes to prevent either from being moved, and is very strong and durable in its character.

Claim.—The hinged drop *e* and plate *d* attached to the lower sash, in combination with the plate *f*, attached to the upper sash when the said drop *e* is kept beneath the edge of the plate *f* by means of the bolt Q, or its equivalent, substantially as and for the purposes specified.

No. 21,328 —Ralph J. Falconer, of Washington, D. C.—*Improved Sash Fastener.*—Patent dated August 31, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Extending the cap portion m^1 of the catch *m* over and along the front edge of plate *n*, to form a catch *x*, opening flush with the edge of plate *n*, so that the window cannot be unfastened without having the point of the hook *a* withdrawn entirely clear from the meeting rail of the upper sash, and out of the way of the bars when the lower sash is raised.

No. 21,968.—Edward M. Judd, of New Britain, Connecticut.—*Improved Sash Fastener.*—Patent dated November 2, 1858.—This invention relates to an improvement in that class of sash fastenings in

which a pintle is attached to a flat spring; the spring being secured to the end of the sash at one side, and the pintle fitting in holes in the styles of the frame or case. The object of the invention is to facilitate the application of the fastening to the sash, and render the same more efficient in its operation than usual.

Claim.—Attaching the rod D to the spring B, by means of the grooves a^1 in said rod, the button a^{11} at its end, and the hole *b* and slot *c* in the spring B, substantially as and for the purpose set forth.

No. 22,105.—John Bestwick, Jr., of Dedham, Massachusetts.—*Improved Sash Fastener.*—Patent dated November 23, 1858.—In the box C of the lower sash B, and just below its eccentric D a slide bolt *f* is placed. This bolt has a spiral spring *g* bearing against it, the spring having a tendency to keep the bolt pressed against the side of the style *d*. On the upper surface of the bolt *f* there is a vertical projection *h*, the upper end of which intersects the path of the movement of the eccentric above it.

Claim.—A sash fastener, having an independent eccentric D and an independent bolt *f*, combined and arranged as shown and described.

No. 22,421.—Porter A. Gladwin, of Pawtucket, Mass.—*Improved Sash Fastener.*—Patent dated December 28, 1858.—The nature of this invention consists in constructing a spring catch or fastener secured to the meeting rail of the window sashes, so that by the pressure of the finger against the thumb-piece of the spring catch at the same time the sash is lifted, will free the sash, and when the sash is lowered down will be fastened by the action of the spring catch.

Claim.—The employment of the perforated plate D with the notched spring F for fastening window sash.

No. 22,187.—John McGerrah, of Philadelphia, Pa.—*Improved Shutter Fastener.*—Patent dated November 30, 1858.—The claim and engraving explain the nature of this invention.

Claim.—The application of the brace to the under leaf of an ordinary hinge, and the nut, as a continuation of the axis of the segment on which revolves the upper leaf of the hinge, which is secured by the brace and the pin securing the embrace of the brace and nut.

No. 19,588.—Eliphalet S. Scripture, of New Haven, Connecticut.—*Improvement in Window Fastener.*—Patent dated March 9, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I am aware that bolts with spiral grooves formed in them have been used before for various purposes; I therefore do not claim such.

But I *claim* the vibrating tracer B *b*, or in other words, small section of a screw nut, allowed to be vibratory in its operation, in combination with the elastic pillow block C, the regulating block D, the bolt E, and the catch stud G, with their flanges and inclined planes, all being secured in a two-part tube, and all being arranged substantially in the manner and for the purposes set forth.

No. 21,370.—Irving Root, of Austin, Texas.—*Improved Window Fastener.*—Patent dated August 31, 1858.—*a* represents the plate to be screwed upon the lower side rail, 1 represents the fulcrum with a lever and a bolt attached to the fulcrum, which is a round cylinder to fit the holes or tubes in the upper rail, which holes are only bored half through the corresponding side rail of the upper sash ; *a* and *b* in perspective represent these tubes.

Claim.—The plate and thimbles, the groove, the spring plate and cylinder, constructed and operating in the manner specified.

No. 19,143.—Joseph U. Huston, of West Meriden, Connecticut.—*Improved File.*—Patent dated January 19, 1858.—The claim and engravings explain the nature of this invention.

The inventor says : I do not claim making a file of separate plate of steel, held together on a rod or bar by means of a screw, or its equivalent.

Nor do I claim making the cutter-plates of the file either round or with an angular periphery.

But I *claim* an improved file, or an improvement on a file so made, my improvement consisting in making each of the plates with a concavo-convex bend or angle, as described, and so that one plate shall extend into another, and be supported by it, and the whole be arranged to better advantage for being sharpened than is the case when the plates are plane or unbent pieces of metal.

No. 22,329.—George W. Fogg, of South Dedham, Massachusetts, assignor to Himself and D. S. Fogg, of said South Dedham, Massachusetts.—*Improved File Cutting Machine.*—Patent dated December 14, 1858.—The claim and engraving explain the nature of this invention.

The inventor says : I *claim*, first, controlling the opening of the regulating valve of an atmospheric trip hammer employed in a file cutting machine, for the purpose of regulating the blow thereof, and producing a uniform depth of cut from end to end of the file by means of a pattern whose form corresponds with or has a proper relation to the longitudinal profile of the file blank, applied and operating upon the said valve substantially as described.

Second, in combination with the arrangement of the cutter guide block K, at a greater inclination from a vertical plane than the hammer stem, and with the fitting of the cutter or cutter stock loosely in said guide block, I claim the employment of a clamping piece Z, or its equivalent, applied to the said guide relatively to a proper bearing on the opposite side of the cutter, and operated substantially as described, to produce the peculiar action of the cutter specified.

No. 20,286.—F M. Mattice, of Buffalo, New York.—*Improvement in Tile Machines.*—Patent dated May 18, 1858.—The nature of this invention consists in such a construction of the machine and the arrangement of its several parts that it may be self operating, that is when it is properly supplied with moistened clay and put in motion that the clay may be wrought into mortar of the proper consistence

and formed into tile, delivered upon a handling board and ready to be set away to dry previous to being set in the kiln for burning.

Claim.—The cut-off valve O, the lever Q, cam S, plunger H, chest F, and cams I and K, when arranged and operating in conjunction, for the purpose of opening and closing the passage P, while filling the chest and discharging the contents of the same by the openings G G, in the manner and for the purpose specified.

No. 19,854.—J. Nelson Jacobs, of Worcester, Massachusetts.—*Improved Machine for Cutting Files.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the wedge I, at the top of the toggle by which the cutter is operated, combined with a foot piece r, with its shoe r^1 resting upon the file blank or file, by means of mechanism substantially such as described, and with a loaded lever O, or its equivalent to operate as set forth, for the purpose of controlling the depth of cut throughout the whole length of the file.

Second, supporting the file blank or file upon a rolling bed fitted to a carriage with rollers interposed in the manner substantially as set forth, for the purpose of insuring an uniform depth of cut all across the file.

Third, the combination of the rocking shoe r^1, of the foot piece r, with the rolling bed E, substantially as and for the purpose set forth.

Fourth, the cam W, combined with the wedge I, foot piece r, and shoe r^1, by mechanism substantially as herein described, for the purpose of raising the cutter and shoe r^1 of the foot piece r from the file or blank to prevent injury during its return.

No. 22,034.—E. K. Root, of Hartford, Connecticut.—*Improved Drop for Forging Metals.*—Patent dated November 9, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the method of elevating the drop or hammer by means of a lifting strap having a vertical reciprocating motion, in combination with the retaining notches and pawls and the spring bolt, or their equivalents, substantially as described.

I also claim the method of disengaging the drop or hammer from the elevating strap by means of a wedge-shaped shoe on the strap, which strikes the end of the bolt, or its equivalents, and forces it clear of the strap, and into engagement with the retaining latch, substantially as specified.

I also claim the employment of an adjustable disengaging shoe, in combination with the series of retaining notches and pawls, essentially as described, whereby the hammer may be readily disengaged from the lifting straps, and retained at any desired height from the base block.

I also claim the sliding ratchet bar, in combination with the retaining notches in the posts, and retaining pawls on the hammer, when arranged and operating substantially as described, for the purposes set forth.

And finally, I claim, in combination with the bolt which forms the connexion with the elevating strap, and with the retaining latch

which holds the slide when disengaged from the elevating strap, or their equivalents, the employment of the angular lever, or its equivalent, by which the hammer may be readily disengaged from the elevating strap by the operator at any required point in the ascent of the hammer.

No. 19,930.—Solomon Johnson, of New York, N. Y.—*Improved Machine for Excavating and Washing Gold.*—Patent dated April 13, 1858.—The object of this invention is to obtain from the beds of streams the auriferous sands, &c , which contain gold, and to wash and separate the same by an incidental and instantaneous process.

Upon the frame *a* the chain-wheel *b*, with a suitable shaft, is placed; the wheel is grooved on its outer edge and otherwise adapted for receiving a chain and buckets in some respects like an ordinary chain pump. Over and upon this wheel an endless chain is made to pass constituted of an ordinary iron chain with, at suitable intervals, the buckets *c c c*.

Claim.—The chain and buckets in their peculiar form of construction, and method of operation in combination with the pump *d*, all substantially as set forth.

No. 19,337.—Henry Barnard, of Morristown, N. Y.—*Improved Ore Washer.*—Patent dated February 16, 1858.—This machine consists of a series of pans C C attached, one below another, to an upright shaft B, which has a rotary, vibratory, and longitudinal motion imparted to it by suitable motion. The pans gradually increase in size from the top to the bottom of the series, and the substances to be washed being introduced with a stream of water into the top one, the overflow of the water from one pan to another from the top to the bottom of the series, combined with the movement of the pans with the shaft, and the action of a series of stationary or moveable agitators, effect the washing operation in a very perfect manner.

Claim.—The series of pans C C, of sizes graduated as described, attached to the upright shaft B which receives a combined rotary, reciprocating and vibratory motion, by which varying degrees of agitation are given to the pans, substantially as and for the purpose described.

No. 21,820.—Josiah P. Clark, of Portland, Maine.—*Improvement in Hammers.*—Patent dated October 19, 1858.—This invention consists in the novel means employed for holding the nail to be driven, so that, without being fixed or held by the hand of the carpenter or other person in the place where it is to be driven, the nail is by one blow of the hammer firmly fixed into the place where it is to be driven by means of an apparatus attached to the side of the hammer.

Claim.—The combination with an ordinary hammer of the metallic plate *d d d* with an opening *a* and slide *b*, constructed and operating substantially as set forth and described.

No. 21,691.—David A. Morris, of Pittsburg, Pa.—*Improved Trip-Hammer and Anvil.*—Patent dated October 5, 1858.—The nature of

this invention consists in arranging one or more trip or tilt-hammers on a suitable foundation to strike either at the same time or alternately on iron held upon one anvil, which should be moveable on rollers beneath it on which the anvil can be moved with facility.

Claim.—The arrangement of a gang of trip or tilt-hammers, substantially as described in connexion with the moveable anvil, constructed in the manner and for the purpose specified.

No. 22,092.—Benjamin Shiverick, of Pittsburg, Pa.—*Improved Forge Hammer.*—Patent dated November 16, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the cam F, so constructed as to act on the collar K, opposite the spindle, or nearly opposite the spindle, during the whole time of its action in raising the hammer, except when the extreme end of the cam is passing out from under the collar to let the hammer drop, as described.

I claim a wedge, or its equivalent, so constructed and arranged as to be moved by the workman or attendant while the hammer is in motion, to graduate the action of the springs upon the hammer, to make it strike light or heavy blows, as desired.

No. 22,073.—Alfred Gregory, of Washington, D. C.—*Improvement in Hand-Hammers.*—Patent dated November 16, 1858.—A is a hollow handle made of metal, bamboo, or other material, among which are reeds of a large bore. The one end of this hollow handle has secured on it the hammer-head B. The other end, as far as grasped by the hand, may be covered so as to secure a good hold. Within this handle is a stick, one part *a* of which is of a light structure, and the other part a^1 of lead or other heavy material. This stick is made reversible on, in, or along the handle, and adjusted by one or more set screws *b*, or in any other way.

Claim.—The heft-regulating "hammer-shaft" or helve, substantially as specified, and operating to secure to the implement, of which it forms the handle, an enlarged and variable capacity to deal light or heavy blows, as required, essentially as set forth.

No. 21,823.—Rufus Dawes, of Washington, District of Columbia.—*Improvement in Hammer-Heads.*—Patent dated October 19, 1858.—This invention consists in giving to the face of a hammer-head such an inclination to the longitudinal axis of the head that the workman shall be enabled to strike a succession of parallel blows when driving a nail, or at other work, without raising the whole arm at each blow.

Claim—As a new article of manufacture, a hammer-head with its face inclined to the longitudinal axis of the head, in the manner set forth.

No. 19,997.—James W. Kerr, of Rochester, New York.—*Improvement in Operating Blacksmith's Hammer.*—Patent dated April 20, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the various parts of my automatic blacksmith separately considered.

But I *claim* the combination and arrangement of the eccentric H

with the slotted reciprocating gate I and bellows K, whereby the required motions for successfully operating the bellows are obtained by the revolutions of the balance-wheel G, in the manner and for the purpose herein set forth.

I also claim the combined operation of the wheel G with cam or cams *o*, lever-bar M, hammer-lever *f*, hammer L, and spring *d*, whereby the power may be reciprocatingly employed between the actions of the bellows and trip-hammer, so that the power released from one is expended on the other, and *vice versa*, substantially in the manner and for the purpose described.

No. 21,981.—Joseph B. Sargent, of New Britain, Connecticut.—*Improvement in Lifting-Handles.*—Patent dated November 2, 1858.—By casting the plate (fig. 1) in any malleable metal, and the handle (fig. 2) in any metal, and placing them together and bending the top of the plate downward around the handle, so that the projections A A will rest on the shoulders C C, the handle is secured to the plate; and on being used the projections D D will strike upon the projections A A, holding them firmly in the proper place, and, besides, preventing the handle from being raised above its proper position.

Claim.—A "lifting handle" with the plate cast in any metal that can be bent, having the socket formed in the manner described, and operating in connexion with the handle, as specified, the whole being an improved article of manufacture.

No. 20,052.—N. F. English, of Hartland, Vermont.—*Improved Hatchet*—Patent dated April 27, 1858.—This invention consists in forming the claw on the upper part of the hatchet, adjoining the eye, so that the face of the hammer and claw will have nearly the same relative position as in an ordinary hammer, thereby rendering the implement very efficacious.

Claim.—Forming the claw *b* at the outer edge of the hatchet and over the eye or end of the handle C, substantially as and for the purpose set forth.

No. 19,374.—John C. Mason, of New Hartford Center, Connecticut.—*Improved Hinge.*—Patent dated February 16, 1858.—The nature of this improvement will be understood by reference to the claim and engraving.

Claim.—The construction of a loose joint butt hinge, which becomes a tight joint as soon as turned from the position in which it is put together in the manner set forth, or in any other manner substantially the same, whereby I am enabled, by putting hinges on each edge of a door, to open it right or left, or by reversing the butt to make a solid hinge, as described.

No. 21,124.—W. H. Elliot, of Plattsburgh, New York.—*Improvement in Hinges.*—Patent dated August 10, 1858.—The nature of this invention consists in combining with a table hinge *b*, a portion of the joint of rule joint *d*, tables.

Claim.—Combining with the table hinge a portion of the rule joint as specified.

No. 21,735.—Mathias Bettinger and August Boos, of Cincinnati, Ohio.—*Improved Hinge.*—Patent dated October 12, 1858.—This invention relates to that class of hinges in which a door or shutter is held open or closed by gravity, by means of the upper section of the hinge settling down on to inclined surfaces on the lower, and consists in combining with the above arrangement a device by which the door or shutter is prevented from being unshipped by wind or otherwise, while swinging to and fro.

Claim.—The described arrangement and combination of the lugs F F, and horns C C, for the purposes set forth.

No. 21,925.—R Hart, of Washington county, Ohio, assignor to Theodore F. Hall, of Marietta, Ohio.—*Improvement in Hinges.*—Patent dated October 26, 1858.—The hinge is constructed of some suitable metal. H H^1 show the wings, or portion of the lower and upper hinges to be attached to the post of the gate. T T represent the wings, or portions of the lower and upper hinges to be attached to the gate.

The inventor says: I *claim* the employment of the shifting yoke *y*, and in combination therewith of the spring *s*, constructed, arranged, and operating substantially in the manner and for the purpose set forth.

I claim also the combination of the hook or part K, having a salient angle *a*, constructed and arranged substantially as set forth, with the inclined plane closing and opening gates and doors.

No. 19,076.—John B. Cornell, of New York, N. Y.—*Improved Hinge Eye for Shutters.*—Patent dated January 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that hinge pivots have been cast into the winged portions of shutter hinges; and I am also aware that the said pivots frequently work loose and drop out of their places, when it is very difficult, if not impossible, to replace them.

I do not claim to be the inventor of the skeleton wing which forms a portion of my improved eye. Nor do I abstractly claim the chill-hardening of any portion of said hinge eye.

But I *claim* as a new manufacture the described improved hinge-eye, the said hinge eye consisting of a chill-hardened eye-hole projection, cast in one piece, with a wing of suitable shape for its being built into a wall, as set forth.

No. 21,347.—John Loudon and Hans Iversen, of New York, N. Y.—*Improvement in Hinges for Window Blinds.*—Patent dated August 31, 1858.—The nature of this invention consists in the combination of a latch lever moving with the blind hinge, with a notched plate on the fixed half of the hinge, whereby the blind can be retained in a partially or entirely open or shut position, and also in the manner of fitting these parts, so that they can be applied to blinds already in use.

The inventors say: We do not claim a hinge formed with a latch to retain the blind.

But we *claim* the combination of the lever *h* on one part of the

hinge with the plate *f* on the other part, for the purposes and as specified.

We also claim the plates *f* and *g* connected with the respective parts of the hinge by the countersinks, and holding said hinge in the desired position by the cam lever *h* and notches in the plate *f*, as set forth.

No. 22,214.—Thomas E. Williams, of Washington, D. C.—*Improved Hinge for Window Blinds.*—Patent dated November 30, 1858.—The nature of this invention consists in arranging a catch-bar upon the face of the hinge in such manner that when the blind (hinge) is thrown open or back, it will be retained firmly in that position, and by applying the finger to the handle of the catch-bar it disengages itself, so that the blind or hinge can be shut or closed, and the bar remain in the same position without strain, locking the wings of the hinge together, so that to break the connexion the plates of the hinge would have to be broken, or the screws of the hinge drawn.

Claim.—The catch-bar *i* and catch *m*, in combination with the cavities *c*, *d* and *f*, and hinge, substantially in the manner and for the purpose set forth and described.

No. 21,496.—A. T. Hedrick, of Clyde, N. Y.—*Improved Gate Hinge.*—Patent dated September 14, 1858.—This invention consists in the employment of an angle plate having an oblong slot cut vertically through its horizontal angle, in combination with a plate which has the pintle or axle pin of the hinge on its lower edge, and a shifting projection on each of its side edges. By this combination a hinge is provided which will cost but little more than the ordinary hook and eye hinge, and will be capable, when used in connexion with an ordinary hook and eye or other hinge, of allowing the gate to open both ways, or inward and outward, and will cause the gate to close automatically, or not allowed to remain stationary in any other but a closed condition, unless held so by a cord or hook.

Claim.—The employment of an angle plate having an oblong slot cut vertically through its horizontal angle, in combination with a plate which has the pintle or axial pin of the hinge on its lower edge, and a shifting projection on each of its side edges, substantially as and for the purposes set forth.

No. 21,939.—C. E. Burnham, of Binghamton, N. Y.—*Improved Gate Hinge.*—Patent dated November 2, 1858.—This invention consists in having pintles fitted in sockets and attached to each end of the gate, and having plates with double inclined planes and steps attached secured to the gate posts, the pintles being acted upon by springs connected to levers, and the whole arranged so that the gate may be made to swing at either end, the pintles serving in the capacity of both hinges and catches, either as may be desired.

Claim.—The pintles *e*, placed within the sockets a a^1 that are attached to the ends of the gate A, in connexion with inclined planes *d* and steps e^1 attached to the posts B B^1, the spring *d* acting or bearing on the pintles *e* and the levers j j^1 or their equivalents, connected to

the pintles through the medium of the rods *h* and arms *g*, the whole being arranged to operate substantially as shown and described.

No. 19,526.—Elbridge Wheeler, of Marlborough, Mass.—*Improvement in Horse Shoes.*—Patent dated March 2, 1858.—The blank is drawn down to the proper width and to a thickness equal to the thickness of the shoe and the height of the calk, the proper level being given to it to form a sharp calk. It is then passed through the machine, where certain indentations are made in the rolls to correspond to the toe-calk C and the heel-calks D, when the portion of the blank between these parts is rolled down E to the thickness required for the shoe, and the projection C and D are left forming the calk.

Claim.—The described horse shoe, the calks and shoe being of one piece of metal, formed by drawing down the shoe, and without welding or turning up.

No. 20,713.—William E. Hubbard, of Randolph, N. Y.—*Improvement in Horse Shoes.*—Patent dated June 29, 1858.—The hook B has a shank of sufficient length to pass through the thick heel part of the shoe A, and receive a nut *c* on the end, and with sufficient length of screw to admit of the necessary expansion of the hoof.

Claim.—The combination of the hooks B—the screw nut *c* being condensed as a part thereof—with the stiff unyielding shoe A, for the purposes as set forth.

No. 21,571.—John Maddock, of Bloomington, Illinois.—*Improved Horse Shoe.*—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention.

Claim.—A nailless horse shoe, provided with lugs *a*, or their equivalents, formed on the upper side of the sole A, when used in connexion with corresponding projections *b*, formed on the inner side of the upper flange B, the former being made to fit cavities formed in the horse's hoof, and the latter into grooves *c*, formed for their reception in the sole A; the whole being constructed and secured together in the manner and for the purposes substantially as set forth.

No. 19,528.—Harry A. Wills, of Keeseville, N. Y.—*Improved Horse-Shoe Machine.*—Patent dated March 2, 1858.—Power is applied to the rollers B C. A bar is first placed between the shears M N, after having been heated. The blank is first cut off from the bars by the shears, the pin *h* actuating the bar L, to which the cutter M is attached. As soon as the blank is cut off, the lever O is moved by the cam on the roller C, and the bar P is moved towards the rollers, carrying the blank forwards to the rollers, and retaining it until it is caught by the front end of the mould E; the blank, as the roller B rotates the rollers *c* on the bars H, serving as supports, and keeping the blank to the mould. Just previous to the entering of the mould E and blank F into the die G, the bar *j* is moved forward by the bar Q, which is operated by the tappet or pin *n* on the roller C, and the bar *j* shoves the front end of the blank F a little off from the mould

E, so as to allow the blank to be expanded laterally while being compressed by the die G.

The inventor says: The rollers B C, mould E, guide rollers *c*, and segment T, have been previously used, and were employed in the machine of Young & Titus, previously alluded to; I therefore do not claim such parts.

But I *claim*, first, the peculiar arrangement of the shears M N in relation to the upper roller B *h* and the feeding bar P, so that the cutter shall be brought into action, and the cutting off of the blank effected in the revolution of the upper roller B by means of the projection *h* on the same, and the blank, when cut off, left in a position to be certainly fed between the rollers, substantially as set forth.

I further claim, in combination with the guide rollers *c*, attached to the bars H H, the auxiliary spring guides *e*, attached to the bars J J, and arranged to operate conjointly with the guide rollers *c*, as shown and described.

I also claim loosening or shoving back the blank F on the mould E, just previous to its entering the female die G, by means of the vibrating or loosening bar *j*, for the purpose set forth.

No. 19,957.—George Stiles and Strickland Kneass, of Philadelphia, Pa.—*Improved Horse-Shoe Machine.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We are aware that an arrangement of a revolving "former" has been heretofore patented in combination with two stationary bending levers; we do not therefore claim any such arrangement.

But we *claim*, 1st. The employment of the stationary former $e\ e^{1}\ e^{11}$, in connexion with the reciprocating levers K K^{1} K^{11} K^{111}, and with the fixed cam S, arranged and operating as set forth.

2d. The employment of the moving swager $d\ d^{1}\ d^{11}$ and fixed swager $f\ f^{1}\ f^{11}$ for forming and swaging the shoe while on the former $e\ e^{1}\ e^{11}$, and enclosed at the side in a hollow moving die box H H^{1}, arranged and operating as set forth.

3d. The employment of the hollow box plunger H H^{1}, in connexion with the former C C^{1}, for creasing and punching the shoe at the same time that the outer edge is finished by the hollow die box; the whole arranged and operating substantially as above described.

No. 20,023.—Elwin Shaw, of Providence, R. I., and Calvin Carpenter, of Pawtucket, Mass., assignors to Themselves and G. B. Justram, of said Providence.—*Improved Horse-Shoe Machine.*—Patent dated April 20, 1858.—By varying the position of the patterns I, with reference to a vertical plane passing longitudinally through the centre of mould K, the amount of pressure given to the edge of the shoe may be regulated and the thickness and width of the heel be varied.

Claim.—Varying the point at which the pressure for narrowing and thickening the heel commences, by moving the mould K in or out in the manner substantially as described.

No. 20,646.—William W. Lewis, of Cincinnati, Ohio.—*Improved Horse-Shoe Machine.*—Patent dated June 22, 1858.—A full description of this machine would require too much space to be given here. To the frame A are secured two brackets A^1 A^1, which contain the bearings for a horizontal shaft D, which carries a cam D^1 for operating through a toggle E E on the die *e*, which forms the top of the shoe; also two cams D^2 D^2 operating through levers F F, rods F^1 F^1, and wedges F^2 F^2 on the two dies *b b*, which form the sides of the shoe, and a cam D^3 which operates on the feed rollers *f f*, which feed the bars of iron.

The inventor says: I *claim*, first, the combination with the stationary table B of the mandrel C P P, the stationary front die *a*, sliding side dies *b b*, and top die *e*, all applied to operate together, substantially as described.

Second. Operating the dies *b b*, which form the sides of the shoe, by means of the upright sliding rods F^1 F^1 with their wedge-shaped ends, the levers F F, and the cams D^1 D^1 on the shaft D, the whole combined and applied as described.

No. 21,779.—T. H. Russell, of Northfield, Vt., and Amos Morrill, of Strafford, Vt.—*Improved Horse-Shoe Machine.*—Patent dated October 12, 1858.—This invention consists in the use of two lateral forming rollers, a vertical pressure roller, and an adjustable or movable former and die; the whole being arranged and operated whereby the desired work, namely, the making of horse shoes, is performed at one operation, the shoes being made directly from the bar without any manipulation on the part of the operator or attendant, except the feeding of the bar to the machine.

The inventors say: We *claim* the movable former K, lateral forming rollers Q Q, arranged with the guide rollers O R and grooves *l l n n*, the vertical pressure roller I, and the female die L, when combined and arranged for joint operation, substantially as and for the purpose set forth.

We further claim the particular arrangement of the roller bar G, to wit, having said bar provided with the rollers i^1 i^1, which bear against blocks *j j*, attached to the uprights H H, and having the pin *h* pass through an oblong slot *g*, in the upper part of the bar, substantially as and for the purpose set forth.

No. 20,079.—John McCarty, of Philadelphia, Pa.—*Improvement in Machines for making Horse Shoes.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: Without claiming separately the various parts described, I *claim*, first, the combination of the mandrel with the rollers 8 8, when the said mandrel is of the same form as that presented by the inner edge of the shoe to be manufactured, when it is so operated as to convey the bent bar to the dies, there retain it while it is submitted to the action of said dies, and subsequently withdraw the formed shoe from the same, and when the rollers are caused to approach each other as the mandrel advances.

Second. I do not claim exclusively the employment of opening, closing, and reciprocating dies.

But I claim the jaws Z and Z^1, the reciprocating mandrel X with its projection underneath, the lower die P with its recess for receiving the projection of the mandrel, and with its projecting lip *p* and the upper die *k*, when the said dies, mandrel, and jaws are arranged to close and lap over each other, in the manner set forth, and when they are otherwise arranged and actuated substantially as and for the purpose specified.

Third. Piercing the requisite nail holes in the shoes by means of the punches *q* when the same are attached to the plates R and R^1, when the latter are hinged to the guide blocks T and T^1, when the upward movement of the latter is regulated by the adjustable wedges V, and when the whole is arranged and operated substantially in the manner set forth and for the purpose specified.

No. 20,441.—Charles H. Perkins, of Putnam, Conn.—*Improved Machine for making Horse-shoes.*—Patent dated June 1, 1858.—This invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the combination and arrangement of the hammer K and the creaser L with one rotary tripping shaft I, so as to be operated thereby substantially in the manner and for the purpose specified.

Second. I also claim the mode of constructing and operating the former B—that is, making said former with the vertical edge *g* and beveled top surface *x*, and causing the said former to take two separate positions with respect to the benders and hammer, in manner and for the purpose set forth.

Third. I also claim constructing the bed or anvil A, with the projection or die *w*, for hollowing the shoe or making it concave in rear of the toe, as specified.

Fourth. I also claim the combination of the straight toe die *b* with the benders C C and the former B.

Fifth. I also claim the combination of a set of notches, or their equivalent, with the rear end or toe or other proper part of the former, and for the purpose of maintaining the shoe blank in its proper place or position with respect to the former during the process of bending the shoe thereon.

Sixth. I also claim in combination with mechanism for giving to the hammer shaft its tilting or vertical motions, mechanism for rotating the shaft at the proper times, in order to bring the hammer and creaser to operate alternately on the shoe, as specified.

Seventh. And in combination with the mechanism for tilting and turning the hammer and creaser shaft, I claim the mechanism for arresting the operations of the tilting mechanism, and for preventing the fall of the hammer shaft long enough to allow of a semi-rotation of the hammer shaft, and the withdrawal of the made shoe from its place about the former, and the substitution of a shoe blank therefor.

No. 19,836.—George James Farmer, of Birmingham, England.—*Improvement in hardening Iron and Steel.*—Patent dated April 6, 1858.—The claim explains the nature of this invention.

The inventor says: I wish it to be understood that I do not confine

myself to these precise details, nor to the exact proportions of the several chemical compounds stated, as I have merely specified those details and proportions which I have hitherto found the best suited to effect the intended purpose, and they may probably admit of some slight variation when operating upon different qualities of metal.

I *claim* the hardening of articles formed of iron or steel, by plunging them into a solution of prussiate of potash, sal ammoniac, and saltpetre, after they have been heated red-hot and rolled in a powdered mixture of the same materials, as fet forth.

No. 21,863.—George S. Bosworth, of Troy, N. Y., assignor to Anson Atwood, of said Troy.—*Improvement in Manufacturing Car Wheels of Cast-Iron.*—Patent dated October 19, 1858.—This improvement is for the purpose of more perfectly chilling or hardening the wheel, making at the same time a more complete casting, without the flaws of "cold sheets," naves, or other defects, making also a more smooth, even surface and perfect form, undistorted by unequal shrinkage, than has been done by other processes.

Claim.—The employment of highly heated "chills" when combined with sand moulds, in the manner and for the purposes set forth.

No. 22,476.—Moses Wrangle, of New York, N. Y., assignor to Hunter, Keller & Co., of said New York.—*Improved Cast-Iron Mercury Bottle.*—Patent dated December 28, 1858.—In this invention the inventor says: I form the pattern, fig. 2, conforming to the shape of the article, and parted, as usual, in the middle longitudinally. I then cut the pattern off at right angles at *a*, the lower portion *b* that forms the concave being connected with the upper part by the dovetail, or other convenient fastening. In the same way I form the cone box, fig. 2, by cutting off the lower section *e*, so that when the mould or cone is formed the upper part can be lifted off, and then the lower part, forming the concave bottom, can be removed laterally and the concavity thus secured.

Claim.—Moulding iron mercury bottles with concave bottoms by means of the patterns, substantially as described.

No. 20,009.—Adam V. Van Hoevenbergh, of Southside, N. Y.—*Improvement in Hollow Cast-Iron Cooking Utensils.*—Patent dated April 20, 1858.—The claim and engravings explain the nature of this invention.

Claim.—As a new and improved article of manufacture, to wit, hollow cast-iron cooking utensils, kettles, griddles, &c., having the interior surface which comes in contact with the cooking material polished by any of the usual processes for polishing metals.

No. 21,844.—James Noble, of Monongahela Borough, Pennsylvania.—*Improved Rolls for Planishing Iron.*—Patent dated October 19, 1858.—The claim and engraving explain the nature of this invention.

Claim.—The use of rolls having a straight groove, depression, or recess, extending parallel to its axis for the entire length of the roll,

or at least for the length of the other roll of the pair into which the other roll is placed before they are pressed together for the purpose of securing a degree of pressure adequate to the planishing of single sheets of metal, in the manner described.

No. 19,799.—Webster A. Stephens and Richard Jenkins, of Covington, Kentucky.—*Improvement in the Manufacture of Tubular Wrought Iron Shafts.*—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The manufacture of wrought iron bars for the tubular axles, shafting, or other purposes, by rolling from a solid pile in a system of grooves, substantially like that described, by which the pile is first flattened, then grooved longitudinally, and afterwards has the sides of its groove closed together and welded, as set forth.

No. 21,772.—David A. Morris, of Pittsburg, Pennsylvania.—*Improvement in the Manufacture of Sheet-Iron.*—Patent dated October 12, 1858.—By this invention the process of manufacturing sheet-iron, to possess most of the qualifications of "polished Russia sheet-iron," consists in procuring well carburetted pig-iron, charcoal cool-blast, having silicium, aluminum, and manganese only alloyed with the iron, being free from sulphur, arsenic, phosphorus, copper, &c., which are difficult to extract and always injurious to the iron. A flux or compound of reagents, so constituted and proportioned as to take up the excess of aluminum, silicium, and manganese, only permitting a minimum of each to remain. This flux may be used either in the refinery or puddling furnace. After this the usual process of reducing iron to thin plates is resorted to.

Claim.—The manufacturing of enameled anti-corrosive sheet-iron, by the process specified.

No. 21,817.—Josephus Chandler, of Attica, Ohio.—*Improvement in the Manufacture of Sheet-Iron.*—Patent dated October 19, 1858.—The nature of this invention consists in treating iron, during the manufacturing process, with certain mineral matter, either alone or in addition to that already used, for the purpose of chemically regulating or altering the character of the surface-scale on the iron, and also facilitating its manufacture; which mineral matter acts upon the iron during the processes of heating and rolling the iron into plates, sheets, &c.

Claim.—Coating or covering bars, plates, or sheets of iron, or either of them, before, at, or during the manufacturing process of heating and rolling, with clay, iron-ore, or other mineral matter, salts, and also with the chlorides or other compounds of zinc, tin, &c., or of their mixtures with other mineral matter, for the purpose substantially as set forth.

No. 21,692.—David A. Morris, of Pittsburg, Pennsylvania.—*Improvement in Rolls for Making Sheet-Iron.*—Patent dated October 5, 1858.—The inventor says: In making this roll, I first have the rolls, of chilled iron, turned off and finished very smoothly; then I

dot or spot them all over with melted wax; the spots of wax may be large or small, and can be arranged to suit the fancy of the maker. After the roll has been properly waxed, I immerse it in diluted sulphuric acid, (about one part acid and twelve or fourteen parts of water,) where it should remain about eight or ten hours, or long enough to etch or eat in the depth required; then I place the roll in a lathe and finish it off with emery and oil, which takes off the sharp edges and gives the projections a rounded form.

Claim.—The employment of mottled chilled iron rolls for rolling sheet-iron, when constructed substantially as described.

No. 21,616.—John Moulson, of Philadelphia, Pa.—*Improved Key-hole Stop.*—Patent dated September 28, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The construction of a key-hole stop consisting of two pieces of metal, one to slide into the other, which, when introduced into a key-hole, first the female then the male piece in conjunction with a lug on one piece and a padlock or its equivalent through both pieces, all combined as described, or their equivalents, will fill the key hole and effectually prevent depredations on locks by preventing the introduction of any unwelcome key or other instrument therein.

No. 20,280.—Rufus K. Lee, of Brooklyn, N. Y.—*Improved Safety Drop for Keys.*—Patent dated May 18, 1858.—The nature of this invention consists in the use of a notch drop *b*, and a key having a flattened shank or groove over which said drop passes, in combination with a peculiar eccentric or cam piece *f*, to prevent said drop from being moved from the outside by a piece of wire inserted through the key hole, and also a revolving disk 6 attached to the inner side of the drop that will revolve by any pick or similar instrument inserted through the key hole, and prevent strain being applied to move said drop.

Claim.—The revolving disk 6 on the rear side of the notched drop *b*, for the purposes and as specified.

I also claim the employment of the notched drop *b*, the eccentric *f*, and disk 6, arranged, constructed, and operating as specified.

No. 19,017.—Orestes Cleveland, of New York, N. Y.—*Improved Bolster for Plated Table Knives.*—Patent dated January 5, 1858.—The bolster D is made separate from the knife blade, and out of some solid metal which is not liable to change its appearance or corrode. The form of the bolster D is represented in the engravings, it being flat and having a hole in the centre. The bolster is passed over the shank C fitted snugly against the shoulder A of the blade and then confined to the handle, which is passed over the shank and its end made to bear up closely against the bolster, as represented.

Claim.—A table knife made substantially as described.

No. 19,641.—Lyman Jennings, of Ewing, Mass.—*Improved Holder for Planing Knives while grinding.*—Patent dated March 16, 1858.—There is a clamp *h h* secured in a frame A, provided with rollers E E,

one or more, and with handles C C, so that the cutter or tool to be ground may be firmly secured in the clamp, and by applying the frame to the stone, the tools are ground in a perfect manner.

Claim.—The frame A, provided with the rollers E E, one or more, and the plate C, clamps *h h*, and adjusting screws *m m*, or their equivalents, for securing and adjusting the knife or cutter D, in the frame, substantially as and for the purpose set forth.

No. 19,614.—Thomas C. Ball, of Keene, New Hampshire, assignor to A. S. Davis and H. C. Henderson, of said Keene.—*Improved Latch for Doors.*—Patent dated March 16, 1858.—The nature of this invention consists in a certain arrangement of the handle D and latch A, by which sliding doors may be closed and latched, or *vice versa*, by a single effort of the hand exerted upon the handle, and by which, with the aid of a padlock, the latch may be firmly in place and the door securely fastened.

Claim.—The combination of the latch A, the handle D, the lever E, the spring B, the lock seat *f*, or their equivalents, for the purposes stated and fully described.

No. 19,786.—John L. Mason, of New York, New York.—*Improved Lathe Chuck.*—Patent dated March 30, 1858.—The screw part is made separate from the flange, with a short stem at its rear; the screw is either screwed together by a screw on the stem of the screw part and a corresponding screw in the flange part, or else the flange part is heated and the two are shrunk together, the flange coming so far on that the thread and groove of the screw shall gradually terminate at the flange.

Claim.—The chuck described for spinning screw caps, &c., having a flange or rounded thread and a rounded groove, the groove and thread vanishing gradually at the flange, substantially as described.

No. 19,533.—John M. Perkins, of New York, New York, assignor to Robert M. Patrick, of said New York.—*Improvement in Locks.*—Patent dated March 2, 1858.—The object of this improvement is to give increased security by a more simple construction, to increase the durability, and to reduce the liability to get out of order. The locking is effected by the yoke *o*, from one end of which a pin passes out through the front and near the key hole, and it is by pulling this outward that the yoke will draw all the tumblers together so that each one will be directly over the other, and in which position the slots *e* no longer coincide, consequently the bolt *f* is kept from entering.

The inventor says: I *claim*, in combination with a set of tumblers, arranged and operating in the manner described, a set of stationary bars at one end, and a set of washers at the other end of and interposed between said tumblers, for the purposes specified.

I also claim the yoke embracing the whole set of tumblers, in combination with a pin, or its equivalent, projecting out and through the case, for the purpose of enabling the tumblers to be shoved together so as to cover each other, whereby the slots of the tumblers are caused not to coincide, thus preventing the bolt from being withdrawn.

No. 19,564.—Abraham Hoagland, of Jersey City, New Jersey.—*Improved Lock.*—Patent dated March 9, 1858.—A in the engravings is the bolt; B the quadrant tumbler; C part of the key hole case; D the ward; E the stem; F india rubber spring; G shaft of the knob; H cam of the lock; I springs to hold the quadrant tumbler firm; J small stems to hold the quadrant tumblers when thrown back in unlocking; K quadrant tumblers in separate parts used when it is required to complicate the lock; L the key. The act of locking is performed by turning the quadrant tumblers to the position in fig. 1, where they are held by the steel spring I.

The inventor says: I do not claim as original any one of the parts of this lock. But I *claim* the combination of the several parts to form a catch lock, with a separate key hole on each side, having the bolt A operated by the segments B and the spring F, constructed and arranged substantially as described.

No. 19,628.—William Denney, of Philadelphia, Pennsylvania.—*Improved Lock* —Patent dated March 16, 1858.—The lever I works on a pin N, and bears on the inside of front plate A of the casing. Its longest arm is provided with a grooved extension l, which plays in peculiarly shaped openings in the tumblers h h^1 h^2 h^3, and which, while at rest in the position shown at fig. 1, prevents the taking of measurements for the proper length of square projections m m on the key. The V-shaped end of the spring R bears against an angular face r on the detector P, and serves to hold it in its place.

The inventor says: I wish it to be distinctly understood that I do not desire to confine myself to the shape of the tumblers in every minutia, nor to any particular number of the same.

I also do not claim the use of the detector P exclusively, as similar contrivances have been made use of before.

But I *claim*, first, the employment of the lever I, in combination with the tumblers, the whole being constructed and operating substantially as set forth.

Second, the combination of the detector P with one of the tumblers in the manner shown.

Third, the described employment of the supplementary key for the purpose of releasing the bolt plate from the detector.

No. 19,879.—Erasmus M. Shaw, of Baltimore, Maryland.—*Improved Lock.*—Patent dated April 6, 1858.—In this improved lock the cover or box plate is moved upwards or downwards by the key when the key is moved. The bolts cannot be separated until the plate r is moved downward so as to cover the narrow portion of the bolts, than it does when it is up as far as it can be moved, for in that position it fits close to the bolts and prevents their separation. B is the hole in the plate A for the stem S to pass through.

Claim.—The plate r, spring plates p p, pins x, and hollow stem q, combined as described.

No. 20,027.—Ludwig Baier, of Cincinnati, Ohio.—*Improved Lock.*—Patent dated April 27, 1858.—The nature of this improvement con-

sists in the combined arrangement of the bolt and tumblers of the lock, together with the means employed for operating the tumblers when attached to the bolt, which arrangement of the parts dispenses with the use of springs, levers, and gearing which are more or less used in all locks for bank vaults and similar purposes.

Claim.—The combined arrangement of the tumblers *c c c c c c* and *d*, guard plate J, T-piece *i*, with the bolt B, all for the purposes mentioned and represented in the specification.

No. 20,476.—Joseph A. Braden, of La Grange, Georgia.—*Improved Lock.*—Patent dated June 8, 1858.—This invention consists in the employment of a series of slides G, provided with teeth or racks h h^1, and arranged relatively with a bifurcated bolt B B, into the parts of which the ends of the slides work, these parts being used in connexion with a series of bits H attached to separate arbors *j k l m*, placed one within the other, and operated by means of keys or knobs.

Claim.—The slides G placed relatively with the bars B B, as shown, and provided with the stationary teeth *h* and yielding teeth h^1, in combination with the bits H, placed on separate arbors, and arranged to operate as and for the purpose set forth.

No. 20,850.—John Philip Lipps, of Newark, N. J., assignor to George D. Baldwin, of New York, N. Y.—*Improved Lock.*—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The independent bit M, constructed as shown and held anteriorly or above the belt by the horizontal spring *z*, (and independent of the spiral springs) thereby securing against the introduction of any instrument to pick the lock.

No. 21,193.—Fayette Gould, of Huntington, N. Y.—*Improved Lock.*—Patent dated August 17, 1858.—This invention consists in the use of two sets of sliding tumblers in connexion with a rotating plate or boss provided with a key chamber and slide whereby the desired object is attained by a simple arrangement of means.

The inventor says: I am aware that sliding slotted tumblers have been used and arranged in various ways in locks, and also used in connexion with guards and other devices for rendering locks unpickable or burglar proof. I therefore do not claim, broadly and separately, series of sliding tumblers provided with notches or recesses at varying points.

But I *claim*, first, the rotating plate or boss C, placed within the annular ledge *a*, and provided with a key chamber or recess *b*, and yielding or elastic pin E, in combination with the sliding tumblers *k*, notched or recessed as shown, the above parts being arranged substantially as and for the purpose set forth.

Second. The rotating plate or boss C, arranged with the sliding plate D, and tumblers k k^1, in combination with the check or guard tumblers n^1, substantially as and for the purpose specified.

No. 21,293.—Hjalmar Wynblad, of West Hoboken, N. J.—*Improved Lock.*—Patent dated August 24, 1858.—The nature of this

invention comprises that kind of plate locks which have recesses in the periphery of the revolving wheel plates to receive the end of a pendular lever, and consisting principally in an improvement on the shape and position of the plates, and in simplifying the action of the same by making them to operate upon the belt direct, dispensing with the lever, &c.

Claim.—The arrangement of tumblers *c d e*, provided with cogs *g* and notches *i*, in connexion with a projection on the bolt, and operating in the manner and for the purpose set forth.

No. 21,346.—John P. Lord, of Manchester, N. H.—*Improvement in Locks.*—Patent dated August 31, 1858.—The nature of this invention consists in the various ways of adjusting the movable driving pins *h*, so that the location of the rotary wards G may be known only to the person adjusting them, the movable driving pins being fitted to any desirable number of holes, or drills, tapped in each and all the wards G at particular distances from each other, thus allowing a great number of changes or variations to be made.

The inventor says: I *claim*, first, the application of the guides *a a a a*, or their equivalents; also the groove B and spring C, or their equivalent, substantially as specified.

Second. The application of the tongue D and guards E E E E E, or their equivalent, combined with the bolt *n*, substantially as specified.

Third. The application of the slotted stud, substantially as specified.

Fourth. The application of the slotted rotary wards G G G G G, or their equivalent, in combination with the driving pins *h h h h h h h h h h h h* and indicator I, or their equivalent, constructed substantially as specified.

Fifth. The application of the driving ward gear J and driving bolt gear O, or their equivalent, constructed substantially as specified.

Sixth. The application of the key L, in combination with the ward and bolt gears, substantially as specified.

No. 21,543.—Christian Ackerman, of Newark, N. Y.—*Improved Lock.*—Patent dated September 21, 1858.—The nature of this invention consists in such a construction and arrangement of parts as to give a peculiar rolling motion to the bolt, and so to secure the same that it cannot be driven back without the entire destruction of the lock.

Claim.—The use of the fall *b* and lever *c*, in their combination with the eccentric moving bolt *a*, when constructed and operated as herein set forth.

No. 21,636.—Thomas L. Pye, of New York, N. Y.—*Improvement in Locks.*—Patent dated September 28, 1858.—This invention consists in the use of a series of sliding slotted tumblers, arranged with a shackle and spring bar, whereby a very simple and efficient lock is obtained, and one that cannot be opened without the proper key. The invention is more especially designed for padlocks, but still is applicable to other forms of locks which have a bolt that enters the casing.

Claim.—The tumblers C, slotted as shown, provided with projections *d*, and used in connexion with a shackle B, or its equivalent, in combination with the bar D and spring *e;* the above parts being arranged to operate as and for the purpose set forth.

No. 21,994.—O. B. Thompson, of Hudson, Ohio.—*Improved Lock.*—Patent dated November 2, 1858.—This invention consists in the use of a series of slotted tumblers and guards peculiarly arranged, and placed in such relation with a bolt tumbler and adjustable lever that a very simple burglar and powder proof lock is obtained.

The inventor says: I *claim* the tumblers *f* and guards *g*, constructed and arranged substantially as shown, and placed in such relation with the plate *b* of the bolt tumbler C and slides *j* to operate as and for the purpose set forth.

I also claim, in combination with the above parts, the bar H, arranged substantially as shown, so as to be acted upon by the arbor bit *s*, to adjust the tumblers *f*, as the bolt B is shoved out from the case.

I further claim the plate *l* and buffer *m*, placed at the back part of the slide-chamber E, substantially as and for the purpose set forth.

No. 22,048.—Linus Yale, jr., of Philadelphia, Pa.—*Improvement in Locks.*—Patent dated November 9, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I make no claim to the particular form of tumblers or other parts of the lock, as my improvement can be adapted and applied to any of the old forms of locks, however simple or however complex and costly.

But I *claim* providing a main bolt or bolts with two or more systems or sets of stops or tumblers, or their equivalents, whether alike in form and construction or dissimilar, commanded by or obedient to one and the same key, or its equivalent, or by separate and distinct keys, or their equivalents, so placed and arranged, whether near or distant, that when the key is applied to either one set, that set shall release the bolt, irrespective and independent of either of the other sets, substantially as and for the purpose described.

No. 22,146.—William Moore, of Brooklyn, N. Y., assignor to George S. Cameron, of Chester C. H., S. C.—*Improvement in Locks.*—Patent dated November, 23, 1858.—This improvement relates to a peculiar check tumbler that acts when the door is locked from the inside, and is turned out of the way while the lock is operated from the outside of the door; it thereby takes the place of the revolving check tumbler.

The inventor says: I *claim*, as an improvement on my said patent of September 14, 1852, the check tumbler *l* and spring *m*, in combination with the tumbler *f*, that is acted on from both key-holes *h* and *i*, substantially as and for the purposes specified.

No. 22,319.—Charles S. Westcott, of New York, N. Y.—*Improved Lock.*—Patent dated December 14, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The inventor says: I am aware that revolving slotted wheels have been heretofore used, and therefore distinctly disclaim the invention of the same.

I also disclaim the invention of the direct entering of a shoulder or attachment to the bolt into the slotted wheels.

But I *claim* the ungearing of two sets of wheels, when a lock is unlocked, in such a manner as to allow the slotted wheels which receive the tongue of the bolt to remain stationary while the remaining wheels can be turned to any desired position, so that the combination can be changed through the key-hole from the front of the lock, said ungearing being effected by means of a bar K, or its equivalent, acting upon a movable piece of metal which supports the shaft upon which one set of wheels revolve, said bar being moved by the action of throwing the bolt, so as to throw one set of wheels out of gear with the slotted wheels when the lock is unlocked, and bring them into gear again when it is locked.

No. 22,425.—Spencer Hiatt, of Indianapolis, Ind.—*Improved Lock.*—Patent dated December 28, 1858.—Upon the lever A is the catch-plate B, designed to operate in the notches of the tumblers 1, 2, 3, 4, 5, 6, 7 and 8. M is a comb spring designed to operate upon each tumbler separately. The tumblers 1, 2, 3, 4, 5, 6, 7 and 8 are designed to hold the lever A up to the bolt N, and the stop or catch S into the notch U or Z, when the catch-plate B is withdrawn from the notches in the tumblers, and rests upon the top of the same. E is a follower, upon which are the levers or arms V and K, designed to force back the catch-bolt P and lock-bolt N, by operating the yoke Q and lever F. L is a rest firmly attached to the lever A, and extending to the lever F, holding it up, and preventing the catch G from falling into the notch X, while the bolt N is held by the catch S.

The inventor says: I *claim*, first, the combination and arrangement of the tumblers 1, 2, 3, 4, 5, 6, 7 and 8, and key bits 9, 10, 11, 12, 13, 14, 15 and 16, with the lever A, sliding yoke Q, and lever arms V and K, when constructed and arranged substantially as set forth.

Second. The combination of the comb spring M and slide R with the tumblers 1, 2, 3, 4, 5, 6, 7 and 8, when constructed, arranged, and operated substantially as and for the purposes set forth.

No. 21,962.—Joseph Hoffacker, of New York, N. Y.—*Improved Lock and Key.*—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, constructing a lock which is closed or locked by the bolt shooting forward and upward, and which is opened or unlocked by a screw key urging the bolt downward and backward, substantially as described.

Second. The construction of the bolt, in combination with the barrel and the three springs, substantially as described.

Third. The combination of the door handles with the lever, substantially as described.

Fourth. The construction and operation of the screw key, substantially as described.

No. 21,689.—L. H. Miller, of Providence, R. I.—*Improvement in Bank Locks.*—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that slotted sliding tumblers have been used in various forms of locks, and arranged relatively with bolts and bolt latches in various ways, and I therefore do not claim, broadly, the slotted tumblers.

But I *claim*, first, a series of slotted sliding tumblers M within a sliding box L, arranged in such relation with the bolt or a bolt latch C that each tumbler will require to be adjusted separately, in order to allow the bolt to be shoved back and the lock unlocked.

Second. The arrangement of the hollow arbor E, rod *g*, lever G, and tude *l*, with projection *n* attached, in connexion with the notched disk H and click H^1 and a key O, constructed as shown, or in an equivalent way, whereby the tumbler box L is moved the correct distance for the several tumblers to be brought in line with the projection *n*, and the several tumblers adjusted at each movement of the box, as described, and for the purpose set forth.

Third. Operating the sliding tumbler box L from the arbor E by means of the part pinion I and the rack *p* of the plate J, arranged in such relation with the dogs *d e*, slide D, and bolt B, that, by the time the tumblers M are all properly adjusted, the dogs *d e* will respectively raise the latch C and throw back the bolt B.

No. 21,862.—Stephen S. Burlingame, of Warwick, R. I., assignor to Himself and William Taylor, of said Warwick.—*Improvement in Bank Locks.*—Patent dated October 19, 1858.—This invention consists in one or more pairs of spring slides arranged to close the key-hole when the key is withdrawn and lock the working key, the slides being so constructed as to be pushed open by the point and bits of the key when it is inserted; also, in providing the working key with spring pawls to lock it when the key is withdrawn, the pawls being so constructed and arranged as to be pushed out by bits of the key when it is inserted; and in locking the second working key and stopping the key-hole, and in fastening the working key to the back plate of the lock.

The inventor says: I *claim* one or more pairs of spring slides *q q* to close the key-hole Z^2, provided with pins to enter the notches *n n*, and lock the collar or working key W, the slides being so constructed as to be pushed open by the point and bits of the key Z when it is inserted as described.

I claim the collar or working key W, in combination with the pawls *p p*, so constructed and arranged as to be pushed out by the bits V V of the key Z, when it is inserted as described.

I claim closing the key-hole and locking the working key T by the sliding tube or collar S^1, pushed out by a spring and locked in the key-hole by the bolt V, as described.

I claim fastening the working key T to the back plate of the lock by means of a flange and plate, substantially in the manner described.

No. 21,947—Lyman Derby, of New York, New York.—*Improvement in Bank Locks.*—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: First. I *claim* the use of the bars or cross-bars secured on an axis eccentric to its true centre, for the purpose of obtaining gravity to unlatch them, in combination with the inside of the door of a safe or other place, substantially as set forth.

Second. I also claim the use of a pendulous latch lever, secured to the inside of a safe, in combination with the bars or cross-bars operating as set forth, on the inside of the door of a safe, and for the purposes described.

Third. I also claim the use of the application of a clock-work movement, in combination with an inverted Y-shaped pendulous latch lever and bars or cross-bars, on the inside of the door of a safe, for the purposes set forth.

No. 20,716.—William Johnson, of Milwaukie, Wisconsin.—*Improvement in Bank and other Locks.*—Patent dated June 29, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, interposing between the key-hole of the lock and the racking stump or thrust plate of the bolt B centrally-pivoted horizontal tumblers, which, by the act of the key alone, are brought into proper position to allow the unlocking movement of the bolt when the key is withdrawn; the whole being constructed and capable of being operated as set forth.

Second. So connecting the sliding bridge-plate E to the sliding guard-plate G that the latter shall move to bring its slot in line with the slot in the socket by the motions of the bridge-plate, and allowing the bridge-plate motion only when the key shall be withdrawn from the socket, as described.

Third. Interposing between the horizontal tumblers T and the pin or stud of the bridge-plate an angular level L, constructed as and operated by the means described.

Fourth. The arrangement of the bolt-plate with the bridge-plate and the guard-plate in their relation to each other and the moving parts of the lock, so that, while being operated by the same means, they have different periods of motion, as set forth.

No. 19,927.—Amos Holbrook, of Milford, Massachusetts.—*Improved Chronometric Lock.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the use, in the construction of automatic and chronometric locks, of jointed release levers, so arranged that their action, when released, shall be from the time-work, and so that the releasing of either lever from its rest on the time-work shall release one end of the crescent I, or its equivalent.

Second. The retaining of release levers while the lock remains locked upon fixed or adjustable rests, which shall receive all pressure necessary to insure the action of the levers when released by the time-work.

Third. The use of a crescent I, or its equivalent, so arranged that

the releasing of either end of it shall also release the unlocking spring or springs, and unlock the lock, as set forth.

Fourth. The use of a spiral grooved cylinder (operated by time-work) with the base or bottom of the spiral grooves full and entire, without notch or cavity, as set forth.

Fifth. The use of a hollow cylinder locking bolt revolving loosely in its bed when locked, as set forth.

Sixth. The adjusting springs J J K, or their equivalents, for the purposes set forth.

Seventh. The arrangement of a T guide, or its equivalent, with its guides and unlocking springs between the unlocking bolts, as set forth.

Eighth. The spiral spring bolt, operated from the outside of the lock plate, for the purpose of retaining the locking spring compressed till closing the door, as set forth.

No. 20,658.—Stuart Perry, of Newport, New York.—*Improvement in Combination Locks.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim*, first, a key of such construction, in combination with a lock without a key-hole or other opening from the outside to the working parts inside, that the said key may be applied to the lock without the aid of an index, figures, letters, or other marks that require a light to be seen, and which key shall govern with precision all the necessary movements of the shaft by which the slides and tumblers of the lock must be adjusted, substantially in the manner and for the purpose described.

Second. I claim, in the construction of locks without key-holes, the employment of two movable shafts, one of which adjusts the slide tumblers, both being accessible from the outside, and one within the other, substantially in the manner and for the purpose set forth.

Third. I claim the method described of adjusting the slides by means of the two movable shafts, which, when operated, are guided in their movements by the key above described, substantially in the manner and for the purpose set forth.

Fourth. I claim the restorer Q, in combination with cam R, shaft E, and bet F, by which all the movable parts in the lock are moved by the force of the hand only, and in the locked and unlocked position are held fast, substantially in the manner described.

Fifth. I claim so constructing the ring cam L that it shall move the slide carriage N at the proper moment, and that it shall hold said carriage fast at all other times, substantially in the manner and for the purpose described.

Sixth. I claim the steel arm D^1, or its equivalent arms, the peculiarly shaped slide y^4, substantially in the manner and for the purpose set forth.

Seventh. I claim the piston b^1 for coupling the slide carriage cam L with the wheel G of the shaft D, for the purpose described.

No. 20,524.—Livonia Whitney, of Toledo, Ohio.—*Improvement in Door Locks.*—Patent dated June 8, 1858.—This invention is designed

for an inside lock or bolt, and is intended to supersede the usual slide bolts and catches hitherto employed for such purposes. The invention consists in the peculiar manner of securing the arbor of the knob F^1 in the lock, said knob F^1 having a bit *a* attached to its inner end and operating the bolt as the arbor is turned.

The inventor says: I do not claim the sliding bolt C and tumbler D operated upon by a bit *a*, for this is a well known and common device used in the majority of locks.

Neither do I claim attaching a knob F^1 to an arbor having a bit *a* at its inner end, for this or its equivalent is used in cases where the arbor passes entirely through the lock and door.

But I *claim* the combination of the slotted plate H, arbor E, and washer G, as shown and described.

No. 20,571.—John R. Marston, of New York, N. Y.—*Improvement in Door Locks.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim separately any of the parts, as they are well known.

I am aware of the patent of William Moore, September 14, 1852, and I therefore make no claim to any device patented to him.

But I *claim* the sliding key-hole cover I, constructed and operating substantially as described, and acting in combination with the bolt C, for the purpose of making a door lock proof against any outside communication when locked from the inside without requiring any adjustment, substantially as set forth and specified.

No. 21,504.—Jacob Kinzer, of Pittsburg, Pa.—*Improved Door Lock.*—Patent dated September 14, 1858.—The nature of this invention consists, first, in the use of a plate on the inside of the lock which, by the insertion of the key, is moved to the other side of the lock and closes the opposite key-hole.

And, secondly, in the use of said plate upon which to raise or form circles or segments, wards or pins, or their equivalents, corresponding to the formation and changes of the key.

The inventor says: I *claim* the use of a plate on the inside of a lock, which, by the insertion of the key, is moved to the other side of the lock and closes the opposite key-hole, substantially as described.

I also claim the use of said plate upon which to raise or form circles or segments, wards or pins, or their equivalents, which correspond to the formation or changes of the key, thereby facilitating and cheapening the manufacture of the lock, substantially as described.

No. 20,063.—James J. Hamilton, of New Castle, Ind.—*Improved Lock for Doors.*—Patent dated April 27, 1858.—The nature of this invention consists in providing a lock with two sliding plates, one of which, when the bolt is thrown out, will close the key-hole on the side opposite to that on which the key is inserted, and further in providing a straddling lift, or catch, which holds the bolt and sides in the position given them by the key. These improvements are applicable to locks of any form, either mortise or box locks.

The inventor says: I *claim*, first, the slides G G, constructed, arranged, and operating substantially as described.

Second. The double lift E, constructed and operating as described.

No. 19,208.—John Schneider, of Chicago, Ill.—*Improved Padlock.*—Patent dated January 26, 1858.—This invention consists in the peculiar construction and arrangement of padlock mechanism, whereby a bolt or bolts are shot through a staple or staples in the shackle by the action of the shackle itself, but which is not capable of being moved, except by the key or its duplicate applied to it from without.

The inventor says: In padlocks wherein the bolt is shot through the staple of the shackle by the direct action of the shackle itself, I *claim* the peculiar mechanism described, consisting of a bolt and tumbler rotating upon a common stationary spindle, in combination with an auxiliary trigger; the said parts being constructed, arranged, and operating in connexion with each other, in the manner substantially as specified.

No. 22,000.—E. M. Mix and J. E. Mix, of Ithaca, N. Y., assignors to Themselves and C. D. Johnson, of said Ithaca.—*Improvement in Padlocks.*—Patent dated November 2, 1858.—This invention consists in the use of a dog and a series of curved tumblers, constructed and arranged so as to render the lock extremely difficult to pick or open by any other instrument than the proper key.

Claim.—The combination of the curved or bent tumblers *a* and dog D, provided, respectively, with springs C *k*, and arranged relatively with the bolt or shackle B, to operate as and for the purpose set forth.

No. 19,815.—John H. Morse, of Peoria, Ill., assignor to Lester Patee, of said Peoria.—*Improved Permutation Lock.*—Patent dated March 30, 1858.—In operating the lock, the nicks in the indicator plates M M M must be turned to figures 1 1 1 on the dial plate. Turning the indicator plate to this position brings the slots G G G in plates B B B directly over the projections E E E on bar A; then by turning the arbor J the short arm *t* lifts the bar A, raising its lugs K K out of the slots N N in the bolt, thus releasing it. In the act of throwing the bolt, the short arm *t* is released from its bearing on the bar A, which allows the springs *f f* to take effect and force the bar back, so that the lugs K K enter the slots N^1 N^1 in the bolt and secure it.

The inventor says: I do not claim the arrangement by which a change of combination or mental key is produced.

Neither do I claim the arrangement for finding the combination in case it should be lost in making a change.

But I *claim* the "blind" or shallow slots *i i i*, or their equivalents, in the circular plates B B B, made and arranged so as to receive the points of projections E E E on the bar A, acting in the manner and for the purpose specified.

No. 19,529.—Nathaniel Wilton, of Boston, Mass.—*Improved Piano Lock.*—Patent dated March 2, 1858.—This lock is composed of a bolt,

which is made to enter a recess or mortise in the edge of the lid, which requires the bolt to have two motions—one upward or vertical to enter the slot, and one forward or horizontal to secure the lid, by hooking over a plate set in the edge of the lid.

Claim.—The construction of the bolt plate B, with the slots 1 and 2, of the form shown, whereby said plate is guided in its two positive motions, as described, and actuating said bolt directly by the key in its motions, as set forth.

No. 22,057.—Obadiah Bayly, jr., of Dearborn county, Ind.—*Improved Safe Lock.*—Patent dated November 16, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the action of niche-wheel N N, in preventing the bolt B B from being passed back so as to unlock. The application of a movable pinion on the shaft-wheel W W, in connexion with a steel plate and hand, by means of which the lock is set to unlock at any given hour by the niche passing in front of the bolt B B, and permitting it to pass within the niche, and not until then.

Also, the application of security spring H, security lever F F, and security catch I, in allowing bolt B B to pass back and over the rim of niche-wheel N N, and again securing it opposite the rim of niche wheel N N, when the door is shut.

Also, the application of stop-levers S S and Q Q, in stopping the clock when the niche is opposite bolt B B, by lever S S coming in contact with the cogs of wheel U U of the clock.

Also, the application of spring L, in pressing bolt B B against the plate of the works.

No. 22,068.—Leger Diss, of Utica, N. Y.—*Improved Safe Lock.*—Patent dated November 16, 1858.—The nature of this improvement consists in so constructing the lock as to render it impracticable to pick it, and also to render it impracticable to explode the lock or destroy it by powder introduced at the key-hole.

Claim.—The combination of the reciprocating stop-holder with the levers *h*, stops *a*, and the compound slotted tumbler D, the construction and operation being as described.

No. 21,655.—Henry W. Covert, of Rochester, N. Y.—*Improved Cam for Throwing Bolts in Locks.*—Patent dated October 5, 1858.—The nature of this invention consists in constructing the cam for throwing the bolt to locks, with a movable cone or wedged-shaped centre, and the rim or socket to be reamed out to fit, the centre being fastened and forming a part of the spindle to which the knob is attached. The knob can be turned or wrenched and no damage done the lock, and at the same time when the cone or centre is pulled forward into the socket or rim there is friction enough to throw the bolt forward and backward.

Claim.—The combination of the cone or wedge-shaped centre with the socket or outer rim, to form a cam for throwing the bolt to the lock, substantially as described and represented.

No. 21,567.—Daniel R. Knowles, of Centre Groton, Connecticut.—*Improved Machine for Cutting Metal Bars.*—Patent dated September 21, 1858.—The object of this invention is to obtain a portable machine, and one that may be operated by a small expenditure of power, for cutting metal bars transversely with a clean, smooth cut. The invention is designed for the use of blacksmiths, repairers of rails, and others who cannot employ large machinery for such purpose, and consists in attaching a proper cutting tool to a reciprocating slide, which is connected with a lever and fitted in a rest, which has an automatic feed motion given it by the movement of the lever.

Claim.—The bed-piece A, provided with the clamp B, block or rest C, slide D, having the cutting tool E attached and connected with the lever G in combination with the automatic feed movement formed of the adjustable lever H, pawls I, ratchet J, and screw-shaft K, connected with the block or rest C; the whole being arranged to operate conjointly as and for the purpose set forth.

No. 19,945.—Samuel Nowlan, of New York, N. Y.—*Improvement in Connecting Rigidly the Ends of Metal Beams.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that gas and water pipes are jointed together by pouring in molten metal to confine the ends of the pipes together, and that molten metal has been used to confine bolts and other fastenings in stone and other material; and I do not, therefore, claim broadly the use of molten metal poured into a joint to confine and retain it in place.

But I *claim* forming a rigid joint of two metal beams by pouring molten metal between the tongue of one beam and the mortise of the other, constructed respectively and arranged in the manner described; *i. e.*, when the sides of the tongue, which have a latch projection, fit on to the sides of a similar shaped mortise and socket, and when the opposite sides of both the tongue and the mortise are corrugated, and leave a space between themselves into which the molten metal is to be poured, substantially in the manner and for the purposes specified.

No. 19,517.—E. A. Smead, of Tioga, Pennsylvania.—*Improved Machine for Forming Sheet Metal Pans.*—Patent dated March 2, 1858.—This invention consists in the employment or use of two dies or formers F G, one of which is attached to a plunger, and the other is provided with jointed sides *e f*, and works within guides which actuate said sides, all so arranged and operating that the body of the pan or vessel will be formed or swaged at a single operation from a plate of sheet metal.

The inventor says: I am aware that dies have been used for swaging or forming dishes, cups, boxes, and similar articles; and I do not claim, broadly, the employment of dies without reference to the peculiar arrangement and construction of the same.

But I *claim* the combination of the two dies F G, when arranged as shown, viz: the lower die G being provided with the movable side-pieces or strips *e*, actuated by the guides *i* as the die descends, the

upper die being attached to the frame C, actuated by the cam D, or its equivalent, for the purpose specified.

No. 22,044.—Peter L. Weimer, of Lebanon, Pennsylvania.—*Improved Machine for Coiling Metal Pipe.*—Patent dated November 9, 1858.—The nature of this invention consists in providing a movable groove or die for the purpose of bending either hot or cold metal pipe into coils, which obviates the grooved cone or cylinder, and enables the coil to be removed from the cone or cylinder without hindrance, as said cylinder is a plain surface and made solid.

The inventor says: I do not claim any movable or springing arrangement for the purpose of keeping the movable die or groove in contact with the coiling mandrel during the operation of coiling the pipe.

But I *claim*, first, the coiling of hot or cold metal pipe on a plain cone or cylinder, by means of a movable groove or die, as described and specified.

Second. I also claim feeding the movable groove or die forward, so as to form the coil by means of a pattern-coil, or its equivalent, as described and specified.

No. 19,090.—David Howell, of Louisville, Kentucky.—*Improved Machine for Bending Metal Plates.*—Patent dated January 12, 1858.—This invention is particularly applicable to boiler heads, and such like work. It consists in the employment of a series of rollers, operating in combination with a circular rotating bed or anvil.

Claim.—The use of a pair or series of rollers R R^1, fitted to swinging frames of lever-like character, which are attached in an adjustable manner to a beam K, or its equivalent, and operated by a double screw S, or its equivalent, substantially as described, in combination with a rotating circular or annular bed or anvil, for the purpose set forth.

No. 19,866.—Edmund Morewood and George Rogers, of Enfield, England.—*Improvement in Coated Metal Plates.*—Patent dated April 6, 1858.—A description of this improvement is too long for a place in this volume. The reader will have an idea of it by examining the claim of the inventors.

The inventors say: We *claim* the new article of manufacture herein described, termed coated metal plates, consisting of sheet metal prepared and coated with a mixture of repellant and preservative coating, substantially as herein set forth; the said coated sheet metal being intended as a substitute, for many purposes, for tin plates, galvanized iron, or other articles of that description, produced by dipping sheets of metal into melted metals.

No. 20,846.—W. J. Granger, of Chicago, Ill., assignor to D. J. Lake and C. B. Brown, of Chicago, aforesaid.—*Improved Punch for Perforating Metal.*—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the employment of springs for the purpose of elevating the punch and retaining it in place.

But I *claim* the arrangement of a punch with a series of slides *j* accurately fitting both punch and tube, and retained in their places by springs K, or their equivalents, substantially as set forth, for affording a lateral support to enable the punch to withstand strain while operating.

No. 20,446.—William Sellers, of Philadelphia, Pa.—*Improved Lathe for Turning Metal Shafting.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of his invention.

Claim.—In combination with rotating cutters, substantially as described, the employment of a guide bar and sliding chucks, or their equivalents, for the purpose of keeping the rough bar in the line it is intended to have when finished, and preventing it from turning or vibrating during the operation, substantially as described and for the purpose specified.

No. 21,749.—Lucien Fay, of Cincinnati, Ohio.—*Improved Machine for Cross-seaming Sheet Metal.*—Patent dated October 12, 1858.—This invention relates to an arrangement of presenting seaming and reeling mechanism, chiefly designed to facilitate the "cross-seaming" of sheet metal for roofing purposes.

The inventor says: I *claim*, first, in the described connexion, with a cross-seaming tool, the gauge bar Q *q*, constructed and operating substantially as and for the purpose set forth.

Second. The grooved roller or reel D *d*, constructed substantially as explained, and employed in the described connexion with a cross-seaming tool to roll up the metal as joined, and afterward discharge the roll without unwinding, as set forth.

Third. The adjustable guides U U, in the described combination, with a seaming tool for the purpose of insuring accuracy of work.

No. 19,677.—Timothy Brown, of Georgetown, N. Y.—*Improvement in Casting Metallic Cheese Hoops.*—Patent dated March 23, 1858.—The object of this improvement is so to construct the mould that the halves, although precisely alike, shall fit together properly to compose a suitable hinge at one joint, and a suitable firm connexion to be opened and closed at pleasure at the other joint.

Claim.—The combination of the cylindrical guiding and supporting mould-piece A, provided with the flange bottom *a* and side projections *b b*, the semi-cylindrical mould-piece B, and the guide top C, all arranged in relation to each other as described, and united by the rods *c* and *d*, substantially in the manner and for the purpose specified.

No. 20,118.—S. W. Wood, of Washington, D. C.—*Improvement in Making Metallic Nuts.*—Patent dated April 27, 1858.—The nature of this invention consists in a solid female die, in which the nuts are formed with a sliding hook, or its equivalent, for discharging the finished nut from said dye, and in a receding punch, which forms part of the solid female die, which recedes on the approach of the

corresponding punch, allowing said advancing punch to pass entirely through the metal to complete the orifice with but slight loss of material.

Claim.—A solid female die, with a sliding hook for discharging the finished nuts, substantially as set forth.

No. 20,165.—Benjamin Mackerley, of New Petersburg, Ohio.—*Improvement in Punching Metallic Tubes.*—Patent dated May 4, 1858.—A gouge-shaped wedge *k*, whose length corresponds with that of the tube to be punched, is inserted into the mouth of the tube, and is pressed between the under side thereof and the under side of the mandrel *a*, for the purpose of keeping the upper side of the mandrel firmly pressed against the upper side of the tube during the operation of punching apertures therein.

The inventor says: I *claim* the combination of the mandrel *a*, the punch d^1, and the detent *j*, substantially in the manner and for the purpose set forth.

I also claim the use of the gouge-shaped wedge *k*, in combination with the mandrel *a* and the punch d^1, substantially in the manner and for the purpose as set forth.

No. 20,794 —George Henderson and Jacob Steetle, of Allegheny, Pa.—*Improved Lathe for Turning in Metals.*—Patent dated July 6, 1858.—This invention relates to a new centreing lathe for doing the kind of centreing practiced by machinists in metal, and consists in a novel combination and arrangement of mechanism for boring centres in line with the geometrical centre of any desired part, either of regular or multiform objects. A represents the shear of the lathe provided with a head B, in which is a spindle C holding a boring tool D, revolves and slides by means of the cone pulley E and handle wheel and screw F and G. H H represent two chucks made to slide freely on the shear and be concentric with a geometrical line parallel with the shear, extending through the centre of the boring tool and spindle C. K L represent the cover and driving wheel of the chuck H.

Claim.—The combination of the two chucks H H with a lathe, the whole being constructed and operated in the manner specified. This invention is designed to operate in metal.

No. 19,498.—Julius C. Dickey, of Saratoga Springs, N. Y.—*Improvement in Shaping and Punching Metals.*—Patent dated March 2, 1858.—When a bar of iron is properly heated it is forced through the conical die *a* into the die *b* until it comes in contact with the punch; and as the shafts revolve the dies are closed upon the bar, and the metal which separates the die *a* from the die *b* is forced into the recess formed in the bar by the projections in the conical die, and the surplus metal is forced out of the conical die on to the bar; after which the punch is forced through the nut by the cam on the main shaft B passing through the opening in the metal which separates the die *a* from the die *b* into the die *a*.

Claim.—The conical die *a*, in combination with the finishing die *b*

and punch D, when constructed and operating in the manner and for the purposes set forth.

No. 22,211.—William H. Van Gieson, of Newark, N. J.—*Improved Machine for Plating Nail Heads.*—Patent dated November 30, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim,* first, combining the stop pawl f^1 of the intermittently rotating die table J with the dog *c*, which give motion to the said table by means of a link f^3 applied to produce the operation of the dog in combination with the pawl and the two series of ratchet teeth on the said table to lock the table, substantially as described.

Second. The pair of receiving jaws N N, with their cavity *l*, to receive and retain the nail while they are closed, applied and operating, in combination with the nail feeder and the intermittently rotating die table, substantially as described.

Third. The combination of a shaking apparatus for bringing the shells rim upward, and a curved conductor U for overturning them in their passage through it, applied substantially as described, to permit and insure the deposit of the shells crown upward in the dies.

Fourth. The combination of the pincers *r r* and the plunger *u*, operating as described, in relation with the conductor U to take the shells therefrom and deposit them in the dies.

Fifth. The combination of the discharging plunger *x* and the stationary hood *y*, having a descending spout Y^1, with the intermittently rotating die table J, substantially as and for the purposes set forth.

Sixth. The stop motion, consisting of a feeding rod 27 suspended from a spring-catch 24 attached to the bar, which throws the machine in and out of gear, and operated substantially as described, by means of a cam H on the main shaft, acting on a spring 33, connected with the said rod, in combination with a stationary stop 26, or its equivalent, substantially as described.

Seventh. The arrangement of the nail-feeding apparatus, the shell-feeding apparatus, the shell-closing punch, the discharging apparatus, and the stop motion relatively to the intermittently rotating table, substantially as described.

No. 20,126.—Henry Green and William J. Gordon, of Philadelphia, Pa., assignor to Henry Green, aforesaid.—*Improved Nail Machine.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim,* first, the combination of the carrying chains H H, and the rack chain J, with the nail rod holder, in the manner substantially as described, to move the rods laterally along the anvil and turn them simultaneously.

Second. The arrangement of the front edge *r r* of the anvil obliquely to the direction of the movement of the carrying chains, substantially as described, for the purpose of causing the nails to be drawn from head to point in the foregoing process.

No. 20,312.—John L. Krauser, of Reading, Pa., assignor to Himself and James Harper, of Philadelphia, Pa.—*Improved Nail Machine.*—Patent dated May 18, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, forming a groove or grooves in the anvil cutter to receive the flange or flanges on the nail plates, as set forth.

I also claim, in combination with a vibrating anvil or anvil cutter, the placing of the cutting edge of said cutter at or near the centre of motion of said vibration, in the manner and for the purpose set forth.

I also claim the rims or adjustable sections B, on the perimeter of the rotating cutter wheel C, for regulating the size of the nail to be cut, as set forth.

I also claim, in combination with a rotating cutter wheel and a vibrating anvil, the inclination given to said anvil and its cutter, for the purposes stated.

No. 20,829.—Hiram W. Taylor, of Birmingham, Pa.—*Improved Nail Machine.*—Patent dated July 6, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the use of a rocking journal box for the sleeve of the feeding rod, to permit of the elevation of the lower end of the feeding rod when the nail plate is turned, or when a full nail plate is to be inserted.

Second. The combination of the pivoted lever *z*, with the lugs c^1 on the cog wheel, and the inclined projection on the segmental cog wheel, for the purpose of securing their gearing together in the correct relative situation, as described.

Third. The use of a crab $f\,f^1$, for connecting shafts, having one lug nearer the centre than the other, so that the inner lug of one half of the crab will pass the outer lug on the other half without locking, for the purpose of causing them to gear always at the same relative point in their revolution.

Fourth. The use of a bottom or stop at the head of the feed rod in combination with a lever, through the extremity of which the feed rod slides freely until the button or stop touches or presses forward the lever, for the purpose of disconnecting the feed apparatus from the nail machine automatically so soon as the nail plate is worked up.

Fifth. I claim the use of the gripping jaws, constructed as described, in combination with the rest K^1 and the spring S^3, for the purpose of producing the requisite feed motion of the feed rod.

No. 19,631.—G. C. Grodhaus, of Jamestown, Ohio.—*Improvement in Cut Nail Machine.*—Patent dated March 16, 1858.—The nail-plate, either hot or cold, is put in at the upper end of the sheath *b*, and immediately finds its way to the bottom thereof, and comes in contact with the guide-plate H, which is also a gauge-plate. The vibratory motion of the sheath C and fork *i* in one direction brings the extremity of the nail-plate between the cutters D L, and the cutter D descending at the proper time cuts off a nail; after which the sheath C and fork *i* immediately commence moving the nail rod towards the cutters D^1

L^1, and as soon as the end of the rod is clear of the cutters D L it descends the sheath C by gravitation till stopped by the gauge-plate H, which conducts it to the cutters D^1 L^1 in a proper manner for a nail to be cut off by those cutters.

The inventor says: I *claim* the arrangement of the sheath C, the circular guide H, and the fork-bar I, as described; the said sheath C having its upper end pivoted at *e*, and its lower end travelling upon a track *f*, the circular guide H extending from one set of cutters to the other, and the curve of its arc corresponding to the sweep of the lower end of sheath C, and the fork-bar I being attached to and carried by the same bar F which actuates the sheath C.

No. 21,198.—John W. Hoard and Thomas A. Searle, of Providence, Rhode Island.—*Improved Nail-Plate Feeder.*—Patent dated August 17, 1858.—This invention consists in a certain contrivance for varying the distance of the feeding movement to cut nails of different widths or thicknesses. It also consists in a certain arrangement of parts for stopping both the forward and rotary motion of and causing the running back of the plate-holder when the plate is all cut up.

The inventors say: We *claim*, first, the polygonal concave-sided and oblique-grooved feed-bar K, applied in combination with the pins *e e* on the feeding-shaft, substantially as set forth, to produce the feed movement of said shaft by its own revolution, and to provide for variation in the feed.

Second. The arrangement of the feed-bar K, the driving-shaft R, and driving-gear I, and the plate *t*, for throwing out the stop pawl of the running back mechanism in the same movable frame, which is liberated by a latch lever, actuated by the feeding-shaft, and thus permitted to be operated upon by a spring L, or its equivalent; the whole operating substantially as set forth.

No. 21,222.—James H. Swett, of Pittsburg, Pennsylvania.—*Improved Nail-Plate Feeder.*—Patent dated August 17, 1858.—The nature of this invention relates to a nail-plate feeder which forms its several functions of turning the nail-plate; advancing it to the gauge partly by a positive motion, and partly by its own momentum, after it is released from its positive motion; and opening the jaws to gripe the nail-plate to release the end of the plate and be ready to receive another plate automatically, and by an arrangement or combination of devices.

The inventor says: What I *claim* is, first, in combination with sleeve E and rod F, the cam slots *a a* and pivoted switch *b* for automatically turning said rod first in one direction, and then in the opposite one, for the purpose set forth.

I also claim giving the rod and nail plate a positive movement during the first of its forward motion by means of the crank Q, pitman R, arms S, crosshead U, levers V, and their projecting portions *u*, which are then forced apart by the cam wedge W^2, and then releasing them by the action of the springs *v*, whilst in motion, so that

their momentum will carry the nail plate up to the gauge, substantially as described.

I also claim, in combination with the nail plate gripers, the spring dogs for automatically opening said gripers to drop the end of the nail plate and be ready to receive another one, as set forth.

I also claim, in combination with the rod F and swinging plate M, with its stud *j*, the ledge N, with its openings, for automatically throwing the feed within out of gear when the nail plate is used up, and into gear again when a fresh plate is supplied, substantially as set forth.

I also claim, in combination with the plate M, the traversing projection Z for catching and drawing back said plate when the nail plate is used up, substantially as set forth.

No. 22,238.—Adrian V. B. Orr and Gideon Bauty, of Frederick, Maryland.—*Improved Wrought-Nail Machine.*—Patent dated December 7, 1858.—The nature of this invention consists in forging spikes, nails and rivets with the grain of the iron, and at a welding heat, by means of excavated faced dies, or swages, and heading the spike, nail, or rivet before the forging dies shall open, thus finishing at a single operation, and obviating the necessity of removing the unfinished nail from the forging dies to be headed by another operation.

The inventors say: We *claim*, first, the dies E and F, constructed in the manner described, and when acting simultaneously, in combination with the heading swage upon the heated bar, as specified.

Second, we claim with the said header and dies, the use of the elongated tweer, opening in the manner and for the purpose set forth.

No. 19,993.—James Houck, of Green Castle, Indiana —*Improvement in Clenching Horseshoe Nails.*—Patent dated April 20, 1858.—A is a post two feet in height, two inches in diameter at the bulge in the center, and tapering towards the top to about three-fourths of an inch in diameter; B. is a band around the top; C an iron or steel cap or plate about two inches in diameter, secured to the top of the post; D is a wooden or metal plate into which the post may be inserted, and to be secured by bolts or screws; and E E E are braces which may be used to steady the post.

Claim.—The use of the post A when constructed with the cap C and band B, in the manner and for the purpcses described in my specification.

No. 20,141.—Tisdale Carpenter, of Providence, Rhode Island.—*Improved Machine for Making Horseshoe Nails.*—Patent dated May 4, 1858.—The operation is as follows: The workman feeds the plate to the shear *m*, turning it over at each cut so that the heads of the blanks are all in one direction when they fall into the box R. The spring *o* prevents them from falling out, when the descent of the shear *m* as it forces in a blank at the top forces out one at the bottom, which drops into the die *e;* as the table I revolves a portion of a turn, at each revolution of the shaft D a fresh die is brought under the box R. When the die containing the nail has come round beneath the

cleaver U, the pin *x* on the wheel H strikes the dog *v* and revolves the shaft V; this slides the piece U in its slots, and the point of the claw *s* strikes under the point of the finished nail and drives it out of the die *e*.

The inventor says: I *claim* the described machine for making horseshoe nails, consisting essentially of the revolving die-table I, arm P carrying the swage *l* and shear *m*, the carriage S with its swage *b*, constructed and operating in the manner substantially as set forth.

Second. I claim the receiving box R with its retaining spring *o*, substantially as described.

Third. I claim, in combination with the table I, the guide *h*, arranged and operating as set forth.

No. 21,213.—S. S. Putnam, of Boston, Massachusetts.—*Improved Machine for Forging Nails.*—Patent dated August 17, 1858.—This improved machine is designed for the manufacture of horseshoe nails, there being suitable dies in the face of the hammers for the purpose. The claim and engravings explain the nature of the improvements.

The inventor says: I do not wish to limit myself to interrupting the motion of the horizontal hammers while the nail is being cut off, as under certain circumstances the vertical pair may be held stationary, or even all four of the hammers may be caught while the nail or other article is being cut off.

Thus far I have spoken of my improvements as particularly applicable to machines for making horseshoe nails, but it is evident that they are equally applicable to machinery for forging a great variety of other articles. I do not, therefore, limit my claims to machinery for any particular class of forging, but intend to apply them to forging machinery wherever they may be applicable.

First. I *claim* hanging the springs which actuate the hammers at points independent of the pivots upon which the helves vibrate, and so far removed therefrom that they shall bear upon the helves nearer to the hammer faces, when the hammers are raised, than at the instant when the blow is given as set forth, for the purpose specified.

Second. I claim the spring E for actuating the hammers in combination with the set plates F and screws *v*, for regulating the tension of the same, as set forth.

Third. In combination with the hammers A and side-pieces H, I claim the adjusting checks I, operating in the manner described, for the purpose specified.

Fourth. And in combination with a mechanical cut-off, I claim holding the hammers out of action and without the reach of the cutters whilst the nail is being cut off, as set forth.

Fifth. I claim pivoting the lever M^2 to any adjustable block O^2, for the purpose of regulating the motion of the nail-rod, as set forth.

No. 21,005.—John L. Krauser, of Reading, Pa.—*Improvement in Manufacturing Nails.*—Patent dated July 27, 1858.—The object of this invention is the production of an improved point upon that description of cut nails whose two rolled sides are parallel, and whose cut

faces are tapering from head to point. Its nature consists in so beveling the edges of nail plate that the blanks cut therefrom will be tapering or V-shaped at both ends, the head being formed by driving the heading tool against the widest of the tapering extremities *c c*.

The inventor says: I do not claim rolling nail plate to an edge one side by inclining its faces, as is practiced in making horse-shoe nail blanks.

Nor do I claim sharpening a single edge, as in the strips of wood from which shoe pegs are split, as my invention is altogether distinct from these cases.

But I *claim* the process, as set forth, of making cut nails with improved points, that is to say, beveling both edges of the nail plate, so that the blanks shall be wedge-shaped at both ends, as shown in fig. 2, and forming the head by the action of the heading tool against the widest end of the blank, as set forth.

No. 19,364.—Darius J. Hendrickson, of Otego, N. Y.—*Improvement in Tools for Clenching Nails.*—Patent dated February 16, 1858.—The nature of this invention consists of an instrument similar in some respects to common pincers, or pliers used by blacksmiths or farmers in pulling shoes from horses' and cattle's feet; but the jaws of this instrument are so arranged that by applying one of the jaws to the bottom of the foot, on the head of the nail, the other jaw clasps or hitches on to the point of the nail on the outside of the hoof, and then, by shutting the instrument together, it draws down the point of the nail and firmly clenches the nail.

Claim.—The construction of the lips or jaws of pliers, as described, for the purpose of clenching the nails with which the shoes are fastened to the feet of horses and cattle, the clenching being done without a hammer or pounding as heretofore, as set forth and described.

No. 19,123.—James P. Blake, of Waterbury, Conn.—*Improved Machine for Covering the Heads of Trunk Nails.*—Patent dated January 19, 1858.—This invention consists in the use of dies so made and arranged that the several parts comprising the filling of the head and the shell or cover of the same, that it may be first snugly compressed together and the shell then closed firmly the several parts, the device working automatically.

The inventor says: I would here remark that I distinctly disclaim the invention of a rotating bed for carrying the dies, as this is seen and claimed in J. G. Davy's patent rivet machine, of July 3, 1849.

Nor do I claim any of the parts shown in Daniel Dodge's nail machine, patented June 22, 1852.

But I *claim* the sockets *e*, provided with the arbors *f*, in combination with the dies or plungers F G, constructed and arranged so as to operate conjointly, as and for the purpose set forth.

No. 21,812 —Otis Breden, of St. Louis, Mo.—*Improvement in Manufacture of Wrought Nails.*—Patent dated October 19, 1858.—The nature of this invention consists in the employment and attachment of the furnace M over the machine, together with the several die faces,

movable and stationary, forming the die by which the nail is made, and the machinery attached thereto for operating the same, also the chisel *q* for cutting the bar W, and the heading apparatus under the bed plate A.

Claim.—First. The die faces *a b c* and *d*, constructed and fitted as described, operated in connexion with the slides *k l* and J, the crank *m*, and the cams C D C D.

Second. The use of the bar *n* for moving out the arm *o*, and the spring P for forcing in the chisel *q*, which is attached to the arm *o*, to cut off the nail.

Third. The attachment of the rod *i* to the crank *s*, working the feed gearing *g g*, causing the rollers *e e* to revolve and feed the iron from the furnace M into the die faces *a b c* and *d*.

Fourth. The employment of the header wheel *a a* and the operation of the rods *f f*, attached to the crank *s s*, for moving the same around, in order to bring the nail opposite the header die *c c*.

Fifth. The employment of the header die *c c* with the slide *d d*, for the purpose of forming the head, together with the pawl *y* for holding up the slide *d d*, and the motion of the cam X in lifting the trigger of the pawl *y*, leaving the slide *d d* free to be forced in to head the nail by the spring *e e*.

No. 21,599.—Richard H. Cole, of St. Louis, Mo.—*Improvement in making Nut Blanks.*—Patent dated September 28, 1858.—This invention consists in preparing metallic nut blanks by partly pressing the hole or eye into them against a blank surface with a round or square pointed punch, while the said blank is confined in a die, whereby the centre of the blank will be pressed in the body of the nut, which will thus be made thicker than the bar from which it was taken.

Claim.—Preparing the nut blank by driving a punch into it, while it is confined against a blank surface, by means of the mechanism constructed and arranged substantially in the manner set forth.

No. 20,145.—Richard H. Cole, of St. Louis, Mo.—*Improved Nut Machine.*—Patent dated May 4, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The use of a traversing die, whereby the nut blank is first passed and prepared on the blank surface of the said die, and afterwards punched and finished over a hole in the same die, substantially in the manner described.

No. 21,551.—Richard H. Cole, of St. Louis, Mo.—*Improved Nut Machine.*—Patent dated September 21, 1858.—This invention consists in cutting the nut blank entirely off from the bar with two knives, one of which is to act from each side of said bar so as to deposit the said blank between a pair of vibrating jaws or formers; and of so arranging the said jaws as to cause them to press the sides of the nut blank to the required form while carrying it from the place where it is cut from the bar, to where it is to be punched. And also in causing the jaws to be opened by a yielding force; and also in a peculiar construction of the punches and die upon which the nut is punched.

The inventor says: I *claim*, first, the arrangement of two knives G G, whereby they are made to act simultaneously on each side of the bar, so as to cut the nut blank entirely off and deposit it between the vibrating jaws or formers K K, substantially as described.

Second. And I also claim the arrangement of the vibrating dies or formers K K, whereby they are made to press the sides of the nut to the required form while carrying it from where it is cut off to where it is to be punched on the die O, substantially in the manner set forth.

Third. And I also claim the spring N, as arranged with the aforesaid jaws or formers, whereby they are opened by a yielding force, as described.

Fourth. I do not claim facing the dies or punches with steel, as they are both made entirely of that metal; but I claim making them in three separate pieces or parts substantially as described, so that I can renew one part and retain the other so as to economize material.

No. 21,860.—Samuel H. Whitaker, of Cincinnati, Ohio.—*Improvement in Nut Machines.*—Patent dated October 19, 1858.—This invention relates to a provision for making metallic nuts with the least practicable waste, most of the "core" or punching being incorporated in the substance of the bar or nut.

The inventor says: Being aware that nuts have long been forged with very little waste by a skillful and laborious process on the anvil, I disclaim effecting such results apart from automatic means.

But I *claim*, first, the die-box N *e f g*, and punch D, or their equivalents, operating as set forth, so as to embody the greater portion of the wad or core in the nut or bar, while confined on all sides save one, in the act of punching.

Second. The arrangement of the punches D G and I, dies E and H, and perforated bridge N, or equivalent devices operating together substantially in the manner described, for the automatic and economical manufacture of hot pressed nuts.

No. 22,310.—Julius B. Savage, of Southington, Connecticut.—*Improvement in Nut Machines.*—Patent dated December 14, 1858.—This invention consists in the use of a cutting device, dies, punch, and a series of adjusters and conveyors, arranged so that the blanks are cut off from the bar, properly compressed, or formed and punched ready for the tap, the several parts working automatically.

Claim.—The employment or use of the cutter E, dies L M F, and punch G, in connexion with the conveyors adjusters, *j k l m n*, and the jaws P Q, or their equivalents, the whole being arranged and combined to operate as and for the purpose set forth.

No. 21,574.—Samuel Noblet, of Halifax, Pennsylvania.—*Improved mode of preventing Nuts from unscrewing.*—Patent dated September 21, 1858.—The nature of this invention consists in preventing nuts or bolt heads from turning, by inserting below them a flexible metallic washer, one end of which is turned up against the head or nut, and the other held immovably in place, either by being sunk into the body

of the timber through which the bolt passes, or by being turned down over some rigid portion of the same, or by being held by another bolt.

Claim.—Preventing bolt heads or nuts from turning, by inserting below them a flexible metallic washer, one end of which is turned against the head or nut, and the other held immovable in place, substantially as described and represented.

No. 19,670.—Nathaniel Conkling, of Brooklyn, New York.—*Improvement in Machine for Crushing Ore.*—Patent dated March 16, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim for crushing or mixing any substance or substances, wheels, or one or more spheres or heavy balls, made to roll around in a stationary, circular, endless trough, nor do I claim arranging the axis of the trough at an inclination from a vertical line when spheres or balls are placed in said trough and it is put in rotation; nor do I claim the application of a grinding wheel to a vibrating shaft, supported by a post, as in the machine of Davis and Miner, before mentioned.

But I *claim* in the machine constructed in manner and so to operate substantially as described; that is to say, with its circular trough arranged and made to revolve horizontally, or thereabouts, and each of the wheels applied thereto, in such manner that it may be stationary with respect to said trough, except in being capable of revolving on its axis, and of rising up and down, to accommodate itself to the ore in the trough; during the revolution of said trough in supporting each wheel G by means of a rocker frame and guides applied to it and the main frame, or arranged therewith, substantially in the manner before specified.

And I also claim the arrangement of a deflecting scraper with respect to the inner surfaces of each wheel and the trough, and so as to operate substantially in manner and for the purpose as before specified.

No. 20,666.—Horace P. Russ, of Russville, California.—*Improved Ore Separator.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The series of inclined circular plates *a a*, in which the water passes from one plate on to the next, while the metallic particles are retained in cavities in the surfaces of said plates, substantially as and for the purposes specified.

No. 20,756.—Hezekiah Bradford, of New York, New York, assignor to Horatio Bogert, of said New York.—*Improved Ore Separator.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: What I *claim* is making the sieve box *a*, which has an up and down motion, with apertures above the sieve, or the equivalent thereof, when acting in and in combination with water or a surrounding tank or trough, substantially as and for the purpose specified.

And I also claim, in combination therewith, the partition, or its equivalent, in the water tank *i*, substantially as specified, to keep the matter which is washed over separate from the substances which pass through the meshes of the sieve, as set forth.

I also claim covering the surface of the sieve with particles of matter of larger size than the meshes of the sieve, that they may lay on and not enter or pass through such meshes, but act as valves to such meshes as described when such mode of operation is to be employed for separating substances of different specific gravity which have been prepared and assorted so as to be of less size than the meshes of the sieve that they may pass through such meshes freely, substantially and for the purpose specified.

No. 22,138.—L. Stadtmuller, of Bristol, Conn.—*Improved Ore Separator.*—Patent dated November 23, 1858.—This invention so operates as to separate the lighter from the heavier portions of crushed ore by projecting said ore with an upward current sufficiently strong to bear upward the lighter portions of the ore, while the heavier are allowed to subside downward through the ascending current, and pass off below, the operation being continuous.

Claim.—The apparatus described for sizing ores, constructed and arranged substantially as specified.

No. 19,338.—Henry Barnard, of Morristown, N. Y.—*Improved Gold Washer.*—Patent dated February 16, 1858.—This machine consists of a series of concave and convex pans C C^1 furnished with rims *k k* projecting from their upper side. The pans are fastened on an upright shaft B, which rotates horizontally, and vibrates laterally and vertically by means of machinery. The substances to be washed are put into the top pan with a stream of water; the finer particles of gold, owing to their lightness, are carried through the central openings of the first pan to the second, which is convex, and the greater part of the precious substances deposited behind the annular rims, while the lighter ones are carried over the outer periphery of the second pan to the third concave pan, and so on through the whole series of pans.

Claim.—The employment of a series of pans C C^1 furnished with a series of annular retention rims *k* projecting from their upper side, and arranged one below another, fast on a horizontal revolving and vibrating shaft, and being alternately larger or smaller in size than one another from the top to the bottom of the series, and alternately inclined inward and outward, or made concave and convex, substantially as and for the purposes set forth.

No. 19,556.—Thaddeus Fowler, of Waterbury, Conn.—*Improved Pin Sticking Machine.*—Patent dated March 9, 1858.—This improvement consists in the manner of receiving the pin from the lower end of the conductor, and carrying it away and inserting it into the crimped paper; and in the manner of feeding the paper, both laterally and longitudinally, so as to stick one pin at a time; and in giving all the motions of receiving, conveying, and inserting the *pins*, as well

as crimping, clamping, and giving *both* feeding motions to the paper by the operation of one cam wheel.

The inventor says: I *claim* the combination of the lateral feeding motion of the paper with the longitudinal feeding motion of the paper, when the two motions are effected, substantially as described.

Second. I also claim the method of taking the pins from the conductor in combination with the method of inserting them, one at a time, into the crimped paper, when this is effected substantially as described.

No. 21,541.—Cornelius Van Vliet, of Winsted, Conn., assignor to the New England Pin Company of said Winsted.—*Improved Pin Sticking Machine.*—Patent dated September 14, 1858.—This improvement consists in the manner of separating and guiding the pins, so that they will fall with their points directly on the crimped and clamped paper in vertical positions, ready to be inserted by the descending motion of the series of punches or drivers.

The inventor says: I distinctly disclaim the punches or drivers as such, as they have been well known for half a century.

I also distinctly disclaim the crimping bar as such, they having been patented in England to Miles Berry in the year 1839, and in the United States to J. J. Howe, of Derby, in Connecticut, in the year 1843.

I also distinctly disclaim the sliding separator as such, as that was patented to J. B. Terry, assignee of Thomas W. Harvey, January 3, 1854.

I also distinctly disclaim the channel ways as such, they having long been known and used for arranging screws, pins, &c.

I *claim* the combination of the series of channel ways with the sliding separator, when constructed and made to operate substantially as described.

Second. I claim the combination of the punches with the sliding separator, when constructed and arranged substantially as set forth.

Third. I claim the combination of the crimping bars, with the punches, sliding separator, and channel ways, when constructed and arranged and made to produce the result, substantially as described.

No. 20,171.—Clifford Pomroy, of Pottsville, Pennsylvania.—*Improved Cast-Iron Pipe.*—Patent dated May 4, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—A cast-iron pipe chilled inside, as a new article of manufacture, for the purpose of conveying fluids impregnated with or containing substances which soon destroy iron pipes which are not so chilled.

No. 19,852.—W. Hudgin, of Washington, District of Columbia.—*Improvement in Coupling Pipes.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Effecting the combination of the main and branch pipes A B by means of an open coupling B^1, which is furnished with an enlarged passage *a* to receive the main pipe A, a passage to receive or

communicate with the branch pipe B, and a set screw *c* or wedge and key, and suitable packing to make a tight joint and always maintain the same, substantially as and for the purposes set forth.

No. 20,717.—DAVID KAHNWEELER, of Wilmington, North Carolina.—*Improvement in Pipe Coupling.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Combining with the male section *a* of the joint an axial stem or rod *b*, which passes into and through the female section *e*, said stem having upon its projection end a screw thread to receive a tightening nut *d*, and the joints *w* and *x* being provided with suitable washers, all as set forth.

No. 19,944.—CHARLES MONSON, of New Haven, Connecticut.—*Improved Conduit Joint for Gas Pipe.*—Patent dated April 13, 1858.—A B exhibit the two leading tubes connected by an universal joint C formed of a ring *a* or its equivalent, and two branches or arms *b b* or *c c* projecting from each leading tube and jointed to the ring. Extended from one leading tube A to the other is a flexible tube D, made of caoutchouc or other suitable material.

Claim.—The described new mode of connecting two leading tubes A B, viz: by a flexible tube D and a joint, which will not only allow one tube to be moved into one or more angular positions with respect to the other tube, but so connect the two leading tubes as to relieve the flexible tube from injurious longitudinal or tensible strain, as specified.

No. 19,313.—CHARLES E. ROCKWELL, of New York, New York.—*Improved Lead Pipe Machine.*—Patent dated February 9, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim, broadly, the making of the die-plate of greater diameter than the bore of the cylinder, for I am aware that this is seen in Kerh & Krenznach's plan, Voight's Technological Journal; but in this device the die-plate, although larger than the bore of the cylinder, is not adjustable in a lateral manner, or by set screws.

But I *claim* having the space between the adjustable die-plate *e* and the base-plate *m* covered or protected by the end of the lead cylinder, the whole constructed as and for the purposes set forth.

No. 20,387.—MICHAEL BOWES, of Charlotte, North Carolina, assignor to Himself and GEORGE B. WATERHOUSE, of said Charlotte.—*Improved Machine for Cutting Pipe.*—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

Claim.—In combination with the cutter, the two revolving disks D E, with the series of holes 1 2 3 4 5, the holes of one disk being furnished with loose sleeves *c* or rings, for the purpose of adapting the machine to the cutting off of pipes of various sizes, as set forth.

No. 20,407.—Aury G. Coes, of Worcester, Mass.—*Improved Pipe Tongs.*—Patent dated June 1, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim making the movable claw or jaw of a wrench adjustable, with respect to the stationary claw or jaw, by means of a screw on the shank of the latter, and a screw nut working on such screw, and so connected with the slide carrying the movable jaw as when rotated to cause the movable jaw to change position relatively to the stationary claw.

Nor do I claim pincers as ordinarily constructed, that is to say, in which each jaw or nipper forms part of one of two levers which cross one another and turn on a common pin or fulcrum, whether the said fulcrum be movable in a slot in one of the levers or not.

But I *claim* my improved pipe tongs or wrench, as made not only with its movable jaw D, connected with a slider C, embracing the shank A of the stationary jaw B, and made adjustable thereon by a nut E, and screw *a*, as described, but with a lever F, separate from the movable jaw D, and applied thereto and to the slider C, substantially in manner as specified.

No. 22,175.—James R. Brown, of Boston, Mass.—*Improved Pipe Tongs.*—Patent dated November 30, 1858.—A is the hooked jaw lever; B is the toothed lever, both being crossed on one another and connected together by a fulcrum pin C, which passes through both and particularly through a slot *a* formed in the jaw lever.

The screw D is arranged in line with the slot *a*, and screws in and through the lever A, and enters the slot, as shown in the engravings.

The inventor says: What I *claim* in the crossed lever jaw pipe tongs is, the described arrangement and application of the adjusting screw with reference to the fulcrum pin, the slot and the hooked jaw lever, the same being for the purpose as specified.

No. 21,525.—Chester W. Sykes, of New York, N. Y.—*Improvement in Making Pliers.*—Patent dated September 14, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Connecting the jaws C of the pliers or pincers to the portions of the handles A, above and below the centre pin or fulcrum B, upon which they move by pins D D^1, at points diagonal with each other, and at equal distances therefrom, the lower set of the said pins D^1, being inserted and allowed to traverse (with the opening and closing of the handles and jaws) in longitudinal slots E, in the lower parts of the said jaws C, substantially in the manner and for the purpose described.

No. 20,460.—Henry Wilkinson, of Collinsville, Conn —*Improvement in the Manufacture of Pliers.*—Patent dated June 1, 1858.—The two patterns of half parts of pliers for casting are first prepared, figs. 2 and 3. The half A is then moulded and cast into the nippers *c c*, which, when cast and cold, is prepared and placed in the sand or mould, where the impression is already made for the other half, fig. 2 B, to be placed as

shown by the dotted lines fig. 3. The metal is then poured in and runs all over the tenon and the nipples, and forms the half B.

The inventor says: I do not claim the nipple joint or its adoption.

But I *claim* the mode of constructing malleable iron pliers by casting one half over the other in the manner described.

No. 19,843.—John P. Grove and John Grove, of Montour county, Pennsylvania.—*Improvement in Puddling Furnaces.*—Patent dated April 6, 1858.—On the under side of the plate M M^1 a circular plate P P^1 is cast. Around the circumference of this plate is a flange of about eight or ten inches vertical projection. Immediately under plate P P^1 is a circular groove or trough Q Q^1 into which the flange on the plate fits. The flange revolves in the trough or groove. The trough is filled and kept full of water for maintaining an air-tight joint at the intersection of the plate and trough. A bevel wheel R R is placed on the lower part of the vertical shaft, and another bevel wheel gears into it. This second wheel is connected with the main driving power by any convenient gearing. By this construction the bottom can be made to revolve constantly while the puddling is going on.

The inventors say: We do not claim the invention of revolving bottoms for puddling furnaces.

But we do *claim*, first, the employment of a revolving bottom for a puddling furnace, arranged with water tubes for cooling it, and with the peculiar air-tight joint described, the whole arranged and operating substantially as described.

Second. The employment in a puddling furnace of a revolving tool, arranged and operating in the manner and for the purpose substantially as described.

No. 20,743.—John Thorndike, of North Weare, New Hampshire.—*Improved Brad Punch.*—Patent dated June 29, 1858.—The object of this invention is to facilitate the driving of brads and consequently expedite the labor of "sticking," or attaching moulding or beading to various articles of joinery, cabinet, and similar work.

Claim.—The cylinder A C, provided with the rod B, punch A, and rod F, the rod B having a spiral spring D placed around it, the above parts being used in connexion with the reserve box E, placed relatively with the cylinder C, and the whole arranged to operate as and for the purpose set forth.

No. 20,516.—David S. Sherman, of Lowell, Massachusetts.—*Improved Punching Machine.*—Patent dated June 8, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the device shown in the patent of R. H. Cole, dated June 3, 1856.

But I *claim* the manner of punching a nut, washer, or other article from plate or bars, by forcing it half way out (or more or less) in one direction into a die, and then forcing it entirely out in the opposite direction into another die, for the purpose of making the outside edges of the nut perfectly square and free from a sharp or burr edge, substantially as described.

No. 20,157.—William H. Howland, of Sacramento, California.—*Improvement in Quartz Crushers.*—Patent dated May 4, 1858.—This machine is designed for crushing auriferous quartz, and consists of a series of pestles J placed within an annular mortar A and around a feeding spout, the pestles being operated by a horizontal double inclined cam G, which acts against circular disks *e* attached to the pestle rods, so that the pestles will be rotated as they are raised by the cam. It also consists in a screen and pulp trough N, for the purpose of better separating the crushed materials.

The inventor says: I do not claim broadly the raising of a pestle or weight by having a horizontal cam acting upon a pulley or circular disk on its end or shaft, for this is a device that has been previously used for analogous purposes, for operating rock drills, &c.

But I *claim*, first, the arrangement and combination of the annular mortar A and pestles J, substantially as and for the purposes set forth.

Second. Having an annular feeding chamber between the upright C and the inner surface of the cylinder L, arranged substantially as and for the purposes set forth.

No. 21,248.—A. J. Doolittle, of Nevada township, California.—*Improvement in Quartz Crushers.*—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Arranging the stampers E of a quartz crusher in such a manner that they are guided in their up and down motion by two springs D D which at the same time serve to increase the force of the blow, in combination with pans G, which are placed loosely under the stampers, so that they are free to rotate under the action of the blows, and which have openings in their sides, the size of which is different for different pans and depends upon the relative coarseness of the quartz, so that the finer parts of the quartz escape and the coarser ones are continually exposed to the full force of the blows, the whole being arranged substantially as set forth.

No. 20,685.—Philos B. Tyler and William Jones, of Springfield, Massachusetts, and Benjamin Lathrop, of Sandusky, Ohio, assignors to Philos B. Tyler, aforesaid.—*Improved Riveting Machine.*—Patent dated June 22, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The employment of a pean as described, shaped to the configuration of the head of the rivet, and operated in the manner and for the purpose set forth, by which a rivet-head is formed by a succession of light blows around the circle.

No. 19,963.—John A. Bailey, of Boston, Massachusetts, assignor to James Horner and James Ludlum, of New York, New York.—*Improvement in Rolling-Mills.*—Patent dated April 13, 1858.—This invention relates to the application of eccentrics to the journals of one roller of the pair or set employed in the rolling-mill, in such a manner as to effect the rolling of articles of a more or less taper form, as file-blanks or articles of parallel form, as may be desired.

The inventor says: I do not claim, broadly, the alternate raising or

lowering of one or more of the rollers in rolling-mills, for the purpose of producing wedge-shape work, for I am aware that it is common to place the ends of rollers in sliding frames, and to depress or elevate the latter by separate cams.

But I *claim* the application of eccentrics C D to the journals *a* of rolling-mill rollers, in the manner and for the purposes substantially as shown and described.

No. 20,702.—Giles Edwards, of Johnstown, Pennsylvania.—*Improvement in Rolling Railway Bars.*—Patent dated June 29, 1858.—The nature of this invention consists in forming the "pile" A by arranging one series of rails in a line with their heads up; another series between the first series, with their heads down; and a third series with their bases down and resting upon the second series, and topping off the third series with a single rail, which is inverted.

Claim.—The manner shown and described of arranging or disposing old rails, in forming a "pile" for the purpose set forth.

No. 20,901.—John H. Snyder, of Troy, New York.—*Improvement in Rolling Railway Chairs.*—Patent dated July 13, 1858.—In each chair the lip and flange, or the two lips, extend the whole length of the chair, and the bottom of each chair projects out on both sides, as at *c c*, beyond the bases of the lip and flange, or the two lips, throughout the whole length.

Claim —Forming or turning the tip or lips A of the chairs upon the collar or collars O of a roller E, by means of another roller D, substantially as set forth.

No. 21,666.—John Fritz, of Johnstown, Pennsylvania.—*Improvement in Rolling Railway Iron.*—Patent dated October 5, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: What I *claim* is the so arranging of "three high" rolls for railroad rails, bars, or beams, as that said rails, bars, or beams may be rolled or reduced as they pass both forward and back, and so that each succeeding pass shall roll down the fire formed at the preceding pass, and avoid any necessity of turning the bar as heretofore done, substantially as described.

I also claim, in combination with the top roll of the series, or with any roll of a series which performs its duty, the yielding clearer or guide, or its equivalent, for preventing the bar, rail, or beam from winding on said roll.

No. 20,736.—Theodore Sharts, of Albany, New York.—*Improvement in Fire and Burglar-Proof Safes.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—A fire and burglar proof sectional cast-iron safe, which has the junction between its sections accomplished by means of tongues and grooves *g h i j f e*, and maintained by means of screw-rods E E, which have their ends entirely hid from sight and inaccessible to

burglars when the safe is finished, by flowing melted metal *p p*, over and around the same, as set forth.

No. 21,427.—Lewis Lillie, of Troy, New York.—*Improved Iron Safe.*—Patent dated September 7, 1858.—The nature of this invention consists in making chilled cast iron safes with a wrought iron jamb cast therein, for the purpose of receiving and sloping the door to the same, and rendering it more strong against burglars. It also consists in making a frame work of wrought iron bars perforated with holes for the door, which wrought iron bars cross each other at right angles and extend to the entire edge of the said door and shut against the wrought iron jamb, for the purpose of preventing burglars from breaking away the immediate edge of said door, thereby effecting an entrance to the inner part of the safe.

Claim.—The mode of forming the corners of a safe with anchors *h h h h;* also the jamb E, as and for the purposes described and set forth.

No. 20,544.—Stephen R. Brown, of East Kingston, New Hampshire.—*Improved Sash Holder.*—Patent dated June 15, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim a lever bearer and a spring for holding a sash in its frame, or to operate as a sash holder.

But I *claim* applying the spring D so as to be capable of being slid or adjusted lengthwise on its abutment, and so as to bear against the lever bearer in whatever position the spring may be set, the same being for the object or purposes as specified.

No. 20,822.—Eliphalet S. Scripture, of New Haven, Connecticut.—*Improved Sash Holder.*—Patent dated July 6, 1858.—This invention consists in novel means employed—a harmless yet powerful elastic pressure against a window sash, or other sliding implement, whereby they may be stopped or retained at any definite place or position in a manner that will insure their remaining there under a great amount of jar or vibration, which effect is produced by a very slight application of power applied.

The inventor says: I do not claim in the combination of my improvement, as described, either a spiral grooved shaft or a two part tube or shell, the same having been described by me in my window fastener or lock, patent of March the 9th, the present year.

Neither do I claim the tracer G.

But I *claim* the oscillating swivel cup D, in combination with an elastic buffer, all being arranged and operated substantially in the manner and for the purposes set forth.

No. 21,483.—A. H. Burdine, of Chulahoma, Mississippi.—*Improved Saw Filer.*—Patent dated September 14, 1858.—The nature of this invention consists, first, in a file constructed spirally on a revolving axis so that a space exists between the two ends of the spiral or screw thread constituting the file. This construction of file serving the

double office of filing and feeding the saw at one and the same time, in a very regular and perfect manner, thus rendering saw filing machines quite simple.

It consists, second, in the combination of one or two of the above specified files with two conical rotating files in a machine of the character specified for the special purpose of filing old cotton gin saws:

The inventor says: I *claim*, first, a file F, constructed spirally on a revolving axis D so that a space *i* exists between the two ends of the spiral or screw thread constituting the file, substantially as and for the purposes set forth.

Second, the combination of one or two of the above specified files F with two conical rotating files G G in a machine of the character specified, substantially as and for the purposes set forth.

No. 20,945.—Heman How, of Georgetown, Massachusetts.—*Improved Saw-Filing Machine.*—Patent dated July 20, 1858.—This machine operates as follows: The operator first draws the slides C C^1 entirely out of the table A A, and fastens the saw between them by means of the screws alluded to above. He then replaces the slides so that the first tooth of the saw shall be under the file. Having done this he turns the crank shaft P by means of the handle Q, which will obviously cause the file to reciprocate over the saw, bearing down as it files and rising up as it passes back. When one cut is finished the operator, by means of the handle *f*, moves the saw along the width of a tooth, and so on until all are filed.

Claim.—The crank shaft P, operating as set forth, in combination with the slotted upright or moving frame J, the flat spring S, and the round metallic springs L L, substantially as described and for the objects specified.

No. 19,265.—Nathaniel F. Stone and Wiley C. Ward, of Menard county, Illinois.—*Improved Saw Gummer.*—Patent dated February 2, 1858.—The nature of this invention will be understood by reference to the claim and engraving.

The inventors say: We *claim* so combining the levers, screw clamp, burr, and clamping disks in one machine, so that the operator may keep the burr up to the saw plate whilst the apparatus is clamped thereto, as set forth and explained.

No. 19,835.—M. Ernsberger, of Bremen, Ohio.—*Improved Saw Gummer.*—Patent dated April 6, 1858.—This invention consists in the employment of a stock provided with set screws for clamping it to the saw, in connexion with a burr cutter applied to the stock in such a way that the same may be properly guided or held in proper position while in operation, and also fed to its work with the greatest facility; the whole forming a simple and efficient instrument well adapted and more especially designed for gumming circular saws.

The inventor says: I do not claim, separately, the burr or cutter *e*, for that has been previously used for analogous purposes.

But I *claim* the stock A, provided with the screws *d*, or their equivalents, and also provided with the tube B, collar C, pin *g*, and shaft D,

with cutter *e*, formed on it, the whole being combined and arranged substantially as and for the purpose set forth.

No. 21,729.—Harvey R. Wolfe, of Consolation, N. Y., assignor to Himself and David Staples and W. H. Watson, of said Consolation. - *Improved Saw Gummer* —Patent dated October 5, 1858.—This invention consists in the use of an adjustable rotating grindstone and saw carriage, whereby circular saws may be gummed with great facility by any person of ordinary ability, but little skill being required to manipulate or manage the device.

Claim.—The arrangement and combination of the stone B, adjustable beams D, screws *b*, slots *c*, and carriage D, as and for the purpose set forth and shown.

No. 21,935.—Nelson Barlow, of New York, New York.—*Improved Saw Gummer.*—Patent dated November 2, 1858.—The tool being placed on the saw and adjusted in the required position, the eccentric arm D is turned upward, standing in line with lever C, and the clamp is thus fastened; the levers are then grasped or enclosed by by the left hand, as the arm D is fixed relatively to the other it follows that as the crank is put in motion (by the right hand) and the left hand is closed, compressing them towards each other, the cutter G is fed up against the saw under the perfect control of the operator.

In all changes of position the rests E F *b* perform an important part: in the first place, in preventing the tool from shifting by any accident, and, secondly, that each tooth may be gauged and conform exactly throughout the series.

Claim.—The described arrangement of levers C and D, rests E and F, in combination with the milling cutter and clamp, all substantially as set forth.

No. 22,260.—J. P. Van Vleck, of Cooksville, Wisconsin.—*Improvement in Saw-Sets.*—Patent dated December 7, 1858.—This invention consists in the employment or use of a spring-hammer operated by a treadle and used in connexion with an anvil, or bed and gauges; the whole being arranged so that saws may be set rapidly and in a perfect manner.

Claim —The hammer head E, operated from the treadle H through the medium of the bar I, springs D L, and arm J, in connexion with the anvil F and gauge G *d*, the whole being arranged substantially as and for the purpose set forth.

No. 22,256.—Edward Marshall, of New York, New York.—*Improved Saw-Set.*—Patent dated December 7, 1858.—The nature of this invention consists in the employment of two or more claws, one of which at least shall hold the saw, while the other shall bend or set the teeth.

Claim.—The described method of setting saws whereby the saw is firmly clamped and held in the slot *i* by means of claws *a a*, while the tooth is being bent or set, the saw being alternately clamped and releas d as the teeth are successively set, as is fully described.

No. 20,933.—A. H. Burdine, of Chulahoma, Mississippi.—*Improved Machine for Sharpening Gin-Saws.*—Patent dated July 20, 1858.—This machine is designed for sharpening old cotton-gin saws without the necessity of removing them from the frame. The machine is placed upon the saw and feeds it by its own teeth. The saw teeth are sharpened with a bevel on each side towards the point, and a whole gin of saws can be sharpened in a few hours.

The inventor says: I *claim*, 1st, the arrangement of the adjustable feeding pawl L L, spring-file frames *i j*, and slotted or jointed adjustable frame C D *b a*, substantially as and for the purpose set forth.

2d. The particular arrangement specified of the self-clamping and self-sustaining frame C *a b*, in combination with the pawl L, for the particular purpose of feeding old circular gin-saws while on the shaft and in the grain frame, substantially as set forth.

3d. The particular manner shown of arranging the clamping part C of the frame on the upper part D of the frame, for the purpose set forth.

No. 19,244.—Hosea O. Elmer, of Mexico, New York.—*Improvement in Gumming and Jointing Saws.*—Patent dated February 2, 1858.—This improvement consists in so constructing the bed or frame of the machine, and providing it with clamps, that it may be readily attached to the saw and adjusted in the proper positions, and applied with equal facility to either reciprocating or circular saws.

The inventor says: I do not claim the rotary bar cutter G placed on a rectilinearly moving frame or carriage, for such device has been previously used.

But I *claim* constructing the bed or frame A of two parallel bars $a\ a^1$, connected at their outer or front ends by a bolt *b*, and having a suitable space allowed between them, when said bed thus constructed is used in connexion with the guard or guide M attached to its inner ends, and arranged as shown, for the purpose of preventing the teeth of the saw being injured by coming in contact with the plates I I, as the bed is adjusted upon or to the saw, as described.

No. 22,040.—Calvin Tabor and Byron D. Tabor, of Ischua, New York.—*Improved Machine for Filing Saws.*—Patent dated November 9, 1858.—A is a horizontal frame of wood, upon which are erected the posts V V, and also the cast iron frame I. B is a circular platform, filling the space between the posts, and fastened to the frame; 7 is a block turning on a pivot 6 and inside of the circular platform, and carrying with it the lower carriage D. The upper carriage H is composed of a block, in which are inserted the upright standards I I, which support the jaws J J. The carriage H runs in grooves in the sides of the carriage D D, and is moved backward and forward by the screw F working in the nut.

Claim.—The use of the file carrier and pressure frame, as set forth, in connexion with the carriage, clamping jaws, and revolving platform, when constructed and operated as specified.

No. 20,330.—William Clemson, of East Woburn, Massachusetts.—*Improvement in Machine for Grinding Saws.*—Patent dated May 25, 1858.—A is the main frame of the machine; B is the grind stone; C the roll which holds the saw to the stone; *a* is the flat pivot on which the saw *b* revolves; D D are ways attached to the main framing; E is the sliding plate which carries the pivot *a* on which the saw revolves.

Claim.—The employment of a revolving friction clamp, applied to the saw in the manner substantially as described, to receive rotary motion from the saw, and to control the revolution of the saw by the momentum it acquires by such rotary motion, as fully explained.

No. 22,367.—Henry Havell, of Newark, N. J.—*Improvement in the Manufacture of Scissors.*—Patent dated December 21, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim, generally, the soldering of a steel plate on to malleable iron by means of brass or other metal.

But I *claim* the forming of the blades of scissors or shears by means of the use of the intermediate plate *b*, or by soldering or brazing the malleable cast iron and steel together, substantially in the manner and for the purpose described.

I also claim in the manufacturing of scissors or shears the use of the die, as before mentioned, and the striking together and into the required line and shape the component parts of the blades, substantially in the manner and for the purpose described.

No. 21,531.—Thomas Whitaker, of Cincinnati, Ohio.—*Improved Screw Cutter.*—Patent dated September 14, 1858.—This improvement relates to that class of screw cutting machines in which the bolt revolves and the die head is drawn on by the action of the threads of the die upon the bolt, while provision is made for the instantaneous separation of the dies while the machine is in motion, and the closing of them again on the bolt at the will of the operator; and it consists in a simple and compact arrangement of parts, whereby the dies are completely under the control of the operator, and may be promptly replaced by others when it is desired to do so.

The inventor says: I am aware that the slot *h*, the adjusting pin I, the hook I, and the lever G, have been previously used in a similar connexion for regulating and adjusting the cutters of a die head, and I therefore do not claim them as my invention.

But I *claim* the combination of the shaft E, the sheaves F F^1, the yokes K K^1, and the guides C C, with the dies D D, when arranged substantially as described, for the purposes set forth.

20,168.—Richard Nuttall and John Kirkpatrick, of Alleghany, Pennsylvania.—*Improved Chuck for Screw Cutting.*—Patent dated May 4, 1858.—The nature of this invention consists in an arrangement for moving the cutting dies backward and forward in their chambers by means of a troll plate, having three scroll formed grooves and die seats with segments fitted to said grooves, and also in an arrangement for holding the cutting dies in their chambers, and in manner of re-

lieving them from the upward or outward pressure of troll plate and die seats.

The inventors say: We *claim*, first, the projection *j* on the movable die seats, and the transverse slot or notch *k*, in the removable cutting dies, the one being adapted to the other as described and for the purpose set forth.

Second. The use of the troll plate when constructed as specified, and operating in connexion with the die seat and die as set forth.

No. 19,752.—Richard H. Cole, of St. Louis, Missouri.—*Improved Screw Cutting Machine.*—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* arranging a set of vibrating chasers *a a a* in a revolving chuck, in such a manner that the said chasers may be opened and shut while the chuck is in motion, and of so constructing and adjusting the said chasers that they shall turn the bolt blank to a given size, and chase the thread on it in one and the same operation, substantially as shown on the drawing, and as described in this instrument.

And I also claim the combination of the two plates N N and the cam P with the cross head O, substantially as shown and described, for the purpose specified.

And I also claim combining the turning lathe with the screw-cutting machine, whereby the heads of the bolts are turned at the same time the chasers cut the thread on their points, in the manner set forth.

And I also claim combining a universal chuck in the opposite end of the same shaft on which the chasing chuck is fixed, whereby the nut can be tapped at the same time the thread is cut on the bolt, and with the same power and motion, substantially as specified.

No. 20,619.—Oliver Bond, of Buffalo, New York.—*Improved Handle for Screw Drivers.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I make no claim to ratchet wheels or cog gearing or spring, when used in connexion with tool handles.

But I *claim* the ratchet ferrules C and D when attached to the handles A and B, and used in combination, the same being protected by the surrounding band ferrule E, as set forth.

No. 19,162.—G. H. Talbot, of Boston, Massachusetts.—*Improved Ratchet Movement for Screw Drivers.*—Patent dated January 19, 1858.—This invention is a combination of two pairs of rag wheels $c\ c^1$ or flat circular ratchets, with reversing gear to engage either pair and disengage the other, so that a rotary motion can be given to the tool by turning the handle B back and forth in opposite directions.

Claim.—The combination with sliding rag wheels $c\ c^1$ of a sliding piece *i*, having claws *h h*, substantially as and for the purposes described.

No. 19,805.—James M. Whiting, of New Bedford, Massachusetts, and George F. Wilson, of Providence, Rhode Island.—*Improvement*

in Wood Screws.—Patent dated March 30, 1858.—The nature of this invention consists in making the upper side of the threads of wood screws deeper than the under side, by taking out more stock from the core or body of the screw on the upper than on the under side of the thread, which greatly increases the hold of the screw on the wood into which it is driven.

Claim.—The making of wood screws with the upper side of the thread of greater depth than the under side of the thread, substantially as described.

No. 21,864.—George W. Daniels, of Waltham, Massachusetts, assignor to Himself and Abraham Fuller, of said Waltham.—*Improved Lathe for Cutting Screws from Wire.*—Patent dated October 19, 1858.—The lathe arbor A is to be made tubular throughout its entire length, the bore of the tube at its front end being enlarged in a tapering or conical form, as shown at *a a*. This bore is to contain a hollow spindle or tube B, whose front end terminates in expanding jaws *b*, formed by a conic frustum sawed axially in two directions, as shown at *c d*. This frustum extends to the conical mouth *a a* of the arbor. On that part of the spindle B which extends beyond the rear end of the arbor a male screw c^1 is to be cut, the screw being made to extend a short distance within the bore of the arbor. On this screw a hand nut or wheel d^1 is screwed and against the rear end of the arbor.

Claim.—The inventor says: I am aware that handles for tool-holders have been made with a holding and centering apparatus of the kind substantially like that described as applied to the arbor of a lathe, with the exception that the bore of their spindle did not extend through such, therefore I do not claim the said holding and centering apparatus either alone or in connexion with a tool handle. I am also aware that a lathe arbor has had a passage extended through it longitudinally and axially, and that such passage has opened into a hollow hub or "boss" containing two metallic bearings, one of which was forced towards the other by a screw arranged transversely on the arbor, the whole being simply for clamping a round shaft on a lathe in order that a concavity might be turned in one end of it. But such devices could only center or bring into one straight line, on the axis of the arbor, a shaft of but one diameter; therefore I do not claim this latter contrivance, it being shown in Henry A. Case's rejected application. My improved lathe, with reference to a round rod extending through the arbor, can perform a function not incident to the lathe of the said case.

I claim combining with a lathe arbor devices made and applied to it substantially as described, so as to enable rods varying in diameter to be securely clamped and centered in the arbor, and to extend entirely through it in manner as specified.

No. 20,036.—Philip Chapin, of Baltimore, Maryland.—*Improved Machine for Cutting Screws.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the employment of a cutter carriage D E, constructed substantially as described, with two branches, one

of which *z* is movable, and so constructed, mounted, and arranged as to embrace the prepared material and the driving screw F at the same time and by the same movement.

Second. The combination of the carriage D E, the driving screw F, and the adjustable gear K I G, for the purpose of cutting threads in wooden screws, as described.

Third. The employment of the hollow binders *d*, for the purpose of securing the cutters *s i* in proper positions for the forming of wooden screws.

No. 20,789.—Ira Griggs, of Utica, New York, assignor to The Utica Screw Manufacturing Company, of Utica aforesaid.—*Improved Machine for Turning the Heads and for Nicking Screws.*—Patent dated July 6, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the arrangement of a series of rotating blank holders in bearings, at equal distances apart, in and at equal distances from the centre of a stock, which has an intermittent rotary motion, for the purpose of presenting each of the series in succession to the feed apparatus, to the cutter for turning the heads, to the saw for cutting the notches, and to a cutter for finishing the heads after the notches have been cut, substantially as described.

Second. The relative arrangement of the driving shaft D D, the blank holders and their rotating stock C, the turning cutters, and the saw for cutting the notches, substantially as described, whereby, when the blank holders severally arrive opposite the saw, the driving belt, which gives them the rotary motion on their axis to effect the turning, is inoperative upon them.

Third. The series of movable rests *s t v*, applied and operating substantially as described, to support the screw blanks and hold them steady during the operation of the cutters and saw.

Fourth. Combining the holding dies *b b* with their operating levers *e e*, by making the said dies detached from their levers and fitting them to slide within guides in the holder, and applying adjusting screws to the levers at their bearing upon the dies, substantially as specified.

Fifth. Applying the discharging punches of the blank holders with springs, to retract them within the holders after the discharge of the blanks, and in such manner that the plungers, after opening the holding dies or jaws, will drive them forward to expel the blanks, substantially as set forth.

No. 21,641.—Henry L. Kendall and Homer P. Hunt, of Providence, Rhode Island, assignors to The New England Screw Company, of said Providence.—*Improvement in Cutting Threads of Wood Screws.*—Patent dated September 28, 1858.—This invention consists in cutting the thread of screws by means of two edges upon the chasing tool or tools, which edges are caused by suitable mechanism to operate successively upon the screw, the one edge having a form adapted to cutting the thread upon the body of the screw between the sloping extremities of the core, and the other cutting edge having a form

adapted to cutting the thread upon the sloping extremities of the core.

Claim.—The cutting of the threads of wood screws by means of chasing tools whose cutting edges have profiles which are respectively counterparts of the body and sloping portions of the screws, and which are caused to act in succession upon the screw blank.

No. 21,438.—Samuel D. Nelson, of Pittsburgh, Pennsylvania.—*Improvement in Scythe Blades.*—Patent dated September 7, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I claim constructing grass and cradle scythes by starting the web of the scythe from one edge of the back, making the back concave on the upper, and convexed on the lower side, leaving the heaviest and thickest part of back on the centre and to the outside of the convexed side of the back, thereby making the scythe stiffer and stronger, as described and represented.

No. 19,524.—Harvey Waters, of Northbridge, Massachusetts.—*Improvement in the Manufacture of Scythes.*—Patent dated March 2, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I wish it to be distinctly understood that I do not make any claim to such mode of procedure, or to the arrangement of dies specified under the present application.

Nor do I wish to be understood as limiting my claim of invention to the said new manufacture of cutting instrument known under the term scythes, as the peculiar edge thus produced is applicable to other cutting instruments.

What I *claim* is the new manufacture of cutting instruments, substantially such as described, having the metal forming the cutting edge in the condition resulting from the previous crinkling or corrugating of the metal at right angles or nearly so, with the line of the intended cutting edge, and then flattening it by a swaging, operating in such manner that the crinkles or corrugations shall not be straightened out by simply bending, as described.

No. 19,152.—Luther E. Porter, of Lake Mills, Wisconsin.—*Improved Double Seaming Machine.*—Patent dated January 19, 1858.—This invention consists in an arrangement of frames which contain the roller, so as to close the seam or joints by which a double seam or locked joint is closed, the work being speedily done.

The inventor says: I do not claim broadly, the employment or use of adjustable rollers for seaming or closing the joints of sheet metal ware, for rollers variously arranged are in common use for such purpose.

But I *claim* the frames I K O, provided respectively with the rollers J N Q, in connexion with the segment C, the whole being arranged as shown, so that the rollers may be readily adjusted, and the manipulation of the machine generally rendered comparatively easy.

No. 21,546.—Joseph A. Braden, of La Grange, Ohio.—*Improvement in Shears.*—Patent dated September 21, 1858.—This invention

consists in making the blades of scissors or shears with their transverse sections of the form of equilateral triangles, so that each presents three cutting edges, and fitting them to the handles in such a manner that they are capable of being turned therein when desired to bring a new pair of cutting edges into an operative position when one pair has been worn out or blunted.

Claim.—Making blades of triangular form in their transverse sections and fitting them to the handles so as to be capable of being turned therein to present three different pairs of edges in an operative position, substantially as described.

No. 20,028.—Daniel Newton, of Southington, Connecticut.—*Improved Shears for Cutting Sheet Metal.*—Patent dated November 9, 1858.—The nature of this invention consists in the application of one or more of the following improvements to shears for the circular cutting of sheet metal: 1st, cutters with holes through them revolving on a rod or axle; 2d, a spring to hold said cutters together; 3d, a screw to hold the metal; 4th, a spring gauge on which the metal rests when placed in the machine.

Claim.—The application to circular shears of two rods with a revolving cutter on each rod sliding either way to adjust the size of the circle.

No. 21,319.—William S. Butler, of Rocky Hill, Connecticut.—*Improvement in Manufacturing Shears.*—Patent dated August 31, 1858.—The process of producing the temper in this invention is as follows: After the pattern is drawn from the mould, particular pains is taken to wet well the sand on the surface and near the cutting edge, as shown at A^3, about one-eighth or one-quarter inch wide, so that when the molten iron is poured into the mould it will chill that portion thereof so much as to give it a sufficient hardness.

Claim.—As a new article of manufacture, a pair of shears made of cast-iron, with their cutting edges A^3 hardened or tempered in the manner described.

No. 21,368.—Isaac Rogers, of Owego, New York.—*Improvement in Shutter Operators.*—Patent dated August 31, 1858.—This invention relates to a peculiar contrivance for effecting the opening and closing of the blinds from the inside of a house.

Claim.—The described apparatus for opening and closing window blinds, viz: the lever *f*, rod *d*, crank *c*, and slide *o*, the whole being arranged on the shutter and window frame, as set forth, combined and operating substantially in the manner described.

No. 20,975.—Henry J. Behrens, of New York, New York, assignor to Charles S. Pomeroy, of New York aforesaid.—*Improved Soldering-Iron.*—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the use of a hollow soldering-iron, so made for the purpose of receiving a red-hot piece of metal to

increase or continue the heat of the surface for a longer space of time, for such contrivance is not new.

But I *claim* the use of a hollow soldering-iron, containing solder, with or without a valve to regulate the flow thereof, as substantially set forth.

I also claim the combination of a hollow soldering-iron containing solder, with an opening *c* through which the solder may pass as required in the process of soldering, its delivery being automatic to its use.

No. 21,972.—E. Manley, of Marion, New York.—*Improved Machine for Soldering.*—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Arranging within and in the desired relation to the furnace A mounted on wheels G, and constructed as set forth, an inclined copper bar or soldering tool I, having notches on its lower surface and a wedge or key J above, for retaining it with the required degree of heat, in combination with the inclined conducting tube L and hinged box M, and its attachments divided into two compartments for the solder scraps and resin, the whole being constructed and operating substantially as described.

No. 19,452.—Leander Shearer, of Duncannon, Pennsylvania.—*Improved Spike Machine.*—Patent dated February 23, 1858.—L is the main lever, one end of which is pivoted at M to the post M^1, the other end being forked to receive the cam K. Upon the lever L is a die-stock E, in which is arranged the upper die S^1, adjustable by means of set screws 3^1 3^1. G is the header-lever, which is moved forward toward the dies by the cam H and brought back by the spring J. D is the knife or cutter, which operates against the edge *a* of the feed-rest D^1, and is attached to the frame R.

The inventor says: I am aware that machines for making spikes have been so constructed as to cut and point the spike simultaneously by the compression of the dies, and also that machines have been so made as to point the spike by the compression of dies while the bar was cut by a knife at the heading end, and do not wish to be understood as claiming any such devices.

But I *claim* the application of the cutter D, acting against the cutting edge *a* of the feed-rest D^1, and the dies S and S^1, operating as set forth, in combination with the reciprocating carriage C, vibrating lever L, and header lever G with its header F, the whole constructed and operating substantially as described.

No. 20,076.—Michael Loughram, of Pittsburgh, Pennsylvania.—*Improved Spike Machine.*—Patent dated April 27, 1858.—This invention consists in the use of dies, working as eccentric cams, so combined and arranged as to form a spike at one operation at every single revolution of the dies.

Claim.—The employment of dies *i k* and *l*, constructed, arranged, and operated as specified, working on separate shafts, and forming spikes at a single revolution.

No. 22,060.—John P. Brinkerhoff, of Brooklyn, N. Y.—*Improved Machine for Making Spoons.*—Patent dated November 16, 1858.—A is a framing on the upper part of which a bed plate C is placed. To the bed plate C, near one end, two upright plates *a a* are secured, the upper ends of the plates *a* being connected by a cross plate *b*. Between the upper parts of the plates *a a*, a roller or shaft D is placed, and on this shaft a projecting surface E is formed, said surface corresponding in form to the article to be manufactured, and having a circumferential position on the roller, the projection serving as a male die. The edges or corners of the die E are made as sharp or angular as may be, to form good cutting edges.

Claim.—The arrangement and combination of the rolling die E, die G, bolster F, opening *h*, and bar H, as and for the purposes shown and described.

No. 22,441.—Thomas J. Mayall, of Roxbury, Mass.—*Improved Door Spring.*—Patent dated December 28, 1858.—A is the door; B is the spring, which is a cylinder of India rubber, or solid and vulcanized in the form it is ultimately to have. The ends of the spring are secured to sockets C and D, one of which is secured to the jamb and the other to the door. By turning the socket D more or less, and locking it by the catch *g*, the spring may be made to close the door with more or less force, and by turning the socket in an opposite direction, the spring may be caused to hold open the door.

Claim.—The described India rubber torsion door spring, operating as described.

No. 20,338.—Edward Doen, of New Britain, Conn.—*Improved Window Spring.*—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim any of the parts described, separately considered.

But I *claim* the combination of the independent obtuse angled lever H and direct-acting spring bolt D, arranged for action together relatively to each other and the face-plate A of the casting, which carries both, and for connexion with the window casing as a fastener to the sash, as set forth.

No. 19,747.—Byron Boardman, of Norwich, Conn.—*Improvement in Staples for Blind-Slats.*—Patent dated March 30, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I am aware that spikes, bolts, and staples, for various uses, have been cut with transverse furrows, and bearded diagonally and otherwise, for the purpose of holding with greater force when driven into wood, and that stems or shanks of fish hooks have been serrated with indentations for their greater security to a line; therefore I do not claim the cutting to produce a bearded or ragged surface or edge either to spikes, bolts, or staples, except in manner and form as described.

Nor do I claim the production of serrated indentations on the shank

of fish hooks, or any other article, except the wire staples, such as are used for the slats of window blinds and screens.

Neither do I claim the production of staples of any kind, when not pointed or serrated as described.

But I *claim* constructing wire staples (such as are used for connecting the semi-revolving slats of window blinds and screens to a rod governing their positions) by giving them a rounded edge in the direction as shown at *a c*, and an acute or sharp edge, as viewed crosswise, as at *f h*, in combination with transverse indentations across the wire; the whole being formed by compressions between dies, substantially as described.

No. 19,804.—Horace Vaughn, of Providence, R. I.—*Improvement in Tempering and Hardening Steel and Iron.*—Patent dated March 30, 1858.—The claim will explain the nature of this improvement.

The inventor says: I do not claim the use of the within named substances when the same are used in a state of aqueous solution.

But I *claim* the use of a bath of chloride of sodium, with or without ferro-cyanide or bi-chromate of potash, or either of them, or of other ingredients possessing similar chemical properties combined with animal or vegetable charcoal and ground bone, when the foregoing substances are in a state of igneous fusion, combined and operating as set forth.

No. 21,948.—Joseph Dixon, of Jersey City, New Jersey.—*Improvement in Manufacturing Steel.*—Patent dated November 2, 1858.—The claim explains the nature of this invention.

Claim.—The process of making steel by heating pig or cast iron, covered or stratified by any substance which will preserve a separation of the plates or pieces of iron through the process of heating, except so far as the use of oxide of iron as a separating material by any patent referred to.

No. 21,039.—Henry Waterman, of Brooklyn, New York.—*Improvement in Making Steel Rollers.*—Patent dated July 27, 1858.—The nature of this invention consists in constructing metal rolls of steel and iron, in two, three, or more pieces, so as to permit the journals to be hardened and reduced to any required temper without danger of cracking or warping, and the outer rim or surface to be hardened and shrunk on at the time of hardening, without subjecting the other portions of the rolls to the heating process, thus preserving the tube form, and surface of the rollers.

Claim.—Improved compound rollers, consisting of the steel shaft A, the iron cylinder B, and the steel cylinder C, forming the surface when fitted together and hardened in the manner specified.

No. 19,038.—George W. Merk, of Leavenworth, Kansas Territory.—*Improved Machine for Bending Tin.*—Patent dated January 5, 185 .—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the two clamping bars F and G arranged at an angle to each other, with each leg of the angle hinged to the

bed, so that the apex of the angle can be raised from the bed to insert the sheets of metal, and cl sed down upon them to bend them, and raised again to remove the bent sheets, as described.

And in combination with the described clamping bars F and G, I claim the folding or bending bars H and M for bending the edges of the sheets of metal, as described.

I claim the spring gauge R, so arranged that it may be raised to gauge the sheets, and spring down, so that it may be removed.

No. 20,700 —G. W. Cooper, of Morenci, Michigan.—*Improvement in Upsetting Tire.*—Patent dated June 29, 1858.—This invention consists in the novel arrangement of the jaws or clamps G which grasp the tire or bar to be upset, and which, owing to their novel arrangement, allow the bar while being compressed or upset to be firmly pressed down upon its bed.

The inventor says: I *claim* the jaws G attached to rods *f*, which are provided with springs *g*, and have a vertical movement, as well as a rotating one, and the inclined planes *h* in the plate below the jaws G, the above parts being used in connexion with the stationary jaws F, the jaws being applied to the ledges *b b* of the plates B D, and arranged as and for the purpose set fo th.

No. 21,327.—E. J. Dodge, of Port Washington, Wisconsin.—*Improvement in Upsetting Carriage Tire.*—Patent dated August 31, 1858.—The nature of this invention consists in arranging the anvil blocks or supports to rock on a centre, in combination with the arranging of the jaws A A^1 of the immediate guide or support E, to be adjusted separately or both together up and down, whereby the machine is adapted to set tire and other articles of greater or less curvature and of different thicknesses.

Claim.—Arranging the anvil blocks or supports to rock on a centre in the manner specified, in combination with the arranging of the jaws of the intermediate guide or support, to be adjusted separately or both together up and down, substantially as and for the purposes set forth.

No. 20,559 —Iris Hobson, of Stout's Grove, Illinois.—*Improvement in Reducing Wheel Tires.*—Patent dated June 15, 1858.—By having the anvil constructed of a series of spring bars K L M, instead of making it solid, it is capable of conforming to any irregularities or eccentricities of the inner circle of the tire, and thus a bearing upon all parts is obtained. And by having the moving toothed jaws O O attached to the anvil the machine is simplified and the clamping of the tire facilitated.

Claim.—The sliding curved anvil formed of one straight and two semi-elliptic spring bars K L M, and furnished with two holding jaws O O, in combination with two toothed stationary jaws o^1 o^1 and a vise screw I, substantially as and for the purposes set forth.

No. 19,842 —Henry H. Gilmore, of Boston, Massachusetts.—*Improvement in Pipe Tongs.*—Patent dated April 6, 1858.—The nature

of this invention consists in a method whereby the slotted part of the tongs is so clamped to the pivot that the strain consequent upon the use of the tongs shall not separate the jaws by slipping the pivot *a* in the slotted jaw A.

Claim.—The combination of an inclined plane or planes, or the equivalent thereof, with the slotted jaw, for the purpose described.

No. 19,416.—James Greenhalgh, jr., of Burville, Rhode Island.—*Improved Expanding Tool.*—Patent dated February 23, 1858.—D is a screw having a right hand thread on one half its length, and a left hand thread on the other half. One end of this screw D is made with a square to fit into a socket F, the stem *d* passes through the head of the stock A, and is formed with a square *e* to receive a wrench or key. The right and left handed screws are fitted with two nuts E and E^1, having the external form of truncated cones. The cutters B B are confined to the cones by springs *c c*. The nuts E E^1 are prevented from turning in the shell by the springs *c c*.

Claim.—The arrangement, substantially as shown and described, of the two truncated cone-sloped nuts E E^1, right and left screw D, expansion pieces B B, and springs *c c*, for the purposes set forth.

No. 22,155 —James Barton, of Cleveland, Ohio.—*Improved Tool for Cutting Key Seats in Wheels and Pulleys.*—Patent dated November 30, 1858.—The nature of this invention consists in providing a shaft with a series of square cutters which are adjustable, and using for cutting a tapering key seat a circular wedge plate.

The inventor says: I *claim*, 1st, the employment of the shaft A, provided with a series of cutters which are adjustable; the two being so arranged that by pressing them through the hole or bore of a wheel or pulley a key seat is finished parallel with the bore, as is fully set forth.

2d. The employment of a tapering circular slip or wedge between the cutter shaft and the bore of the wheel or pulley on the opposite side from the cutters while the key seat is being cut, for the purpose of cutting a tapering key seat, as is fully described.

No. 22,466.—William White, of Newark, New Jersey.—*Improvement in Making Edge Tools.*—Patent dated December 28, 1858.—The nature of this invention consists in pouring from a crucible or other vessel into a mould wrought iron or steel, or both in combination, while in a melted state, and thereby forming a whole or a part of an axe, hammer, or other article, the cavity of said mould being the shape or form of the article desired.

Claim.—The use of wrought iron and steel, separately or combined, while in a melted or liquid state, for the purpose of forming into shape axes and other articles without the process of forging, welding, or swaging, by the use of a mold, the cavity of which is the shape or form of the article desired, as set forth in the specification.

No. 19,606.—John Henn, of New Britain, Connecticut, assignor to Himself, Anton Danl, and Leopold Lankan, of Hartford, Connecti-

cut.—*Improvement in Attaching Tools to Handles.*—Patent dated March 9, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The arrangement and construction of the plate *w*, with projection D, acting against a spring in the back of a handle in such a manner that when opened it will relieve said spring to allow a knife or tool to be attached to the upper end of said handle, and when closed force the spring against the tool so as to hold the same perfectly steady in the handle, substantially as described.

No. 19,150.—Charles Monson, of New Haven, Connecticut.—*Improved Gas-Tube Joint.*—Patent dated January 19, 1858.—This invention consists of a metallic tube joint with a relief-ring C, to prevent wearing the joint, for the purpose of rendering pendant lights moveable.

Claim.—The arrangement of the semi-circular tubes *g h*, in connexion with the ring C and central chamber *i*, constructed and operated substantially as set forth.

No. 20,529.—Edmund Jordan, of Waterbury, Connecticut, assignor to the Benedict & Burnham Manufacturing Company of said Waterbury.—*Improved Maching for Finishing Soldered Tubing.*—Patent dated June 8, 1858.—This invention consists in a peculiar means employed for operating a file or cutter *c c* for the purpose of finishing off the soldered seams of tubing. It also consists in a clamp for holding the tubing while being operated upon by the file or cutter.

The inventor says: I *claim* the files or cutters *c c*, attached to a tilting stock which is fitted to a reciprocating slide F, and operated by means of the connecting-rod D, crank C, and stops G G^1, substantially as and for the purpose specified.

I further claim the clamp formed of the two plates I I attached to the levers H H, which are connected to a treadle K, the whole being arranged to operated as and for the purpose specified.

No. 20,053.—George W. Finch, of Gibraltar, Wisconsin.—*Improved Tuyere.*—Patent dated April 27, 1858—This improvement consists of two hollow cylinders of cast iron. The outer cylinder A is stationary and is usually cast open only at one end, and to this and a cast iron cover or head B is fitted and secured, either by bolts, turnbuckles, or any other convenient manner. A long narrow slot C is cast through the side in front of the forge fire, the ends of said slot being beveled to a sharp angle, outwardly, in opposite directions, for the purpose of producing a diverging blast, and is of a length determined by the requirements of the work to be performed.

The inventor says: I do not claim separately, or in themselves considered, any of the described parts.

But I *claim* the use of two hollow cylinders A and E, in combination with the slotted opening C, and the outlets *a b c*, or more, if necessary, of varying forms and sizes; all arranged to operate substantially as and for the purpose set forth.

No. 22,012.—Harvey S. Berry, of Rutland, Vermont.—*Improved Blacksmiths' Tuyere.*—Patent dated November 9, 1858.—The claim and engravings explain the nature of this invention.

Claim.—A tuyere revolving in a wind box supplied with wind in any ordinary way, with apertures through it, so arranged as to bring more or less of them at pleasure to bear upon the fire, and thereby diminish the fire and circumscribe the space affected by the blast, or enlarge the space and increase the fire.

No. 22,111.—Benjamin Dixon, of Marshall, Michigan.—*Improved Blacksmiths' Tuyere.*—Patent dated November 23, 1858.—This improvement consists of a device for regulating the width of the nozzle at the point of exit in tuyeres when surrounded by water.

Claim.—The mode of regulating the length of the discharging orifice in a water tuyere, by means of the oblong tapered wind chamber A (with grooves or other equivalent device in its casing) in combination with one or more of the tapered plugs P P, rods R R, and the detachable cover D, to be used for the purposes and in the manner substantially as described and set forth.

No. 19,622.—Charles B. Clark, of Oriskany Falls, New York.—*Improved Vise.*—Patent dated March 16, 1858.—This invention consists in the employment of a peculiarly constructed screw and pawl, arranged and applied to the vise, whereby the movable jaw is rendered susceptible of being quickly and also firmly adjusted to the stuff to be held or clamped. There is also a peculiar arrangement of the movable jaw, whereby irregular-shaped articles, or articles of taper form, can be held or grasped by the jaws and firmly held.

The inventor says: I do not claim, broadly, a jaw arranged so that it may adjust itself parallel with one side of the taper articles to be grasped, without reference to the particular means employed for effecting the purpose, for jaws have been previously arranged to effect this purpose.

Neither do I claim, broadly, the construction of the screw-rod D, irrespective of the pawl E, and the particular adaptation of said parts, as shown and described.

But I *claim*, first, the arrangement and combination of the bar B, screw-rod D, (having a thread *c* of the peculiar form shown,) and pawl *e*, the latter serving the double purpose of a pawl and nut, substantially as and for the purposes described.

Second. Providing the bar B with recesses *e e*, so that the jaw F may adjust itself or turn upon its pivot *d*, substantially as and for the purposes set forth.

No. 19,861.—Sanford Mason and Edward M. Davis, of Michigan City, Indiana.—*Improved Vise-Anvil for Repairing T Rails.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim*, first, the combination of the guard *c* on the lever jaw, and the groove *a* in the bed-piece, with a raising mechanism for raising up said lever jaw, substantially as described.

We also claim in combination the projection *d* on the lever jaw and

the groove *g* on the locking jaw, so that when the jaws are raised up they will open to receive the rail, and when released will catch and firmly hold themselves and the rails to the bed-piece, substantially as described.

No. 21,951.—Joseph S. Ford, of Philadelphia, Pennsylvania.—*Improvement in Gas-Fitters' Vise.*—Patent dated November 2, 1858 —This invention consists in the combination of an upper and lower die with two screws, each die having two or more semicircular recesses, the screws and recesses being peculiarly situated in respect to each other, and the whole being adapted to a suitable frame, in order that one or the other of the screws may serve as a fulcrum, and the upper die as a lever for transmitting, by turning the remaining screw, an increased pressure at that point where a gas-pipe is inserted between the two dies, and this with but little exertion on the part of the operator.

Claim.—The upper die D and lower die J, in combination with the screws H H^1, the said dies having two or more semicircular recesses, situated in respect to each other and to the screws substantially as and for the purpose set forth.

No. 20,043.—Richard H. Cole, of St. Louis, Missouri.—*Improvement in Machine for Making Washers.*—Patent dated April 27, 1858.—This invention consists in an improved construction of the die or die-box, whereby the washer, after being made, is discharged through the bottom of the die or die-box.

Claim.—The loose bottom *u* and the spring *v*, in connexion with the die *m*, the said bottom and spring to be arranged and constructed substantially in the manner set forth, for the purpose specified.

No. 21,359.—A. Pearsall, of Nashville, Tennessee.—*Improvement in Welding Bellows-Pipe.*—Patent dated August 31, 1858.—This invention consists in the use of an inclined mandrel, clamps, and welding roller, whereby the seams or joints of bellows-pipes or nozzles may be closed and added in an expeditious and perfect manner.

Claim.—The inclined mandrel C, clamps E E, and roller I, combined and arranged for joint operation, substantially as and for the purpose set forth.

No. 21,286.—Henry Waterman, of Brooklyn, New York. *Improvement in Tempering Wire and Steel.*—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The process of hardening steel wire, or thin steel, in long sections, being kept under a longitudinal strain by means of the wheels D D^1, while passing through the fire in the furnace *c*, the guide H to conduct the wire directly from the fire into the hardening bath, in combination with such hardening bath, as specified.

No. 21,866.—Sanford Adams, of Boston, Massachusetts.—*Improvement in Tools for Manufacturing Iron Riddles.*—Patent dated October 26, 1858.—C is the frame of the riddle, across which are placed tempo-

rary guides D. Within the notches of these guides are laid the longitudinal wires *i*, beneath these is then laid the transverse or supporting wire *h*, the two sets being bound together by a suitable wire *g* in the customary manner. In order to secure the wires *i*, *h*, and *g* so firmly that they shall not be displaced by use, and to do this without misplacing the wires, the tool shown in figs. 2 and 4 is employed. Attached to its handle or shank F are the teeth *m*, and to the back of these the longer points or teeth S.

Claim.—The described tool for manufacturing riddles, having teeth *m* and S, operating in the manner substantially as set forth.

No. 21,635.—Charles A. Young and Solomon W. Young, of Providence, Rhode Island.—*Improved Machine for making Wire Springs for Furniture.*—Patent dated September 28, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim* a single grooved roll D in combination with the upright rod *n*, to effect the coiling of the wire.

We also claim varying the diameter of the coils to produce a bi-conical form in the spring, by causing the roll D to approach and recede from the coiling rolls in a direct or curved line horizontally, substantially as specified.

No. 19,790.—Archibald Murray, of Troy, New York.—*Improved Wrench.*—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Improved adjustable wrench, in which the movable jaw is fastened to the fixed one by means of a ring or collar C, which surrounds and slides upon the shanks of both jaws together, substantially as described.

No. 19,954.—Eliphalet S. Scripture, of New Haven, Connecticut.—*Improved Wrench.*—Patent dated April 13, 1858.—This invention consists in the means employed for operating the movable head or jaw D of the wrench A, whereby the said jaw may be quickly moved and firmly adjusted to the nut or other article to be turned, the implement being held and the jaw operated with one hand only.

The inventor says: I am aware that a wrench has been made having a screw thread cut upon the face of the shank, and a screw nut fitted into one side of the movable jaw, the arrangement being such that when the periphery of the screw nut is forced and held into contact with the screw thread, by means of a cam button, the movable jaw may be operated by turning the nut; I do not claim any device of this kind.

I am aware that a pawl H and a serrated bar A, in connexion with an arm E provided with a spring *b*, have been previously used, and I therefore do not claim said parts.

But I *claim* the employment within the pawl H of a screw rod G, substantially as and for the purposes set forth.

No. 20,211.—James McKenzie, of Green Island, New York.—*Improved Wrench.*—Patent dated May 11, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—Fixing the movable jaw of an adjustable wrench by a toothed wedge, passing through the said jaw, fitting into the teeth or notches on the shank, in the manner specified, so as to keep the movable jaw firm to resist all pressure that may be applied to it.

No. 20,379.—George C. Taft, of Worcester, Mass.—*Improved Wrench.*—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim a wrench having its movable jaw operated by two reversed male screws extending in opposite directions either from one another or from a rosette.

Nor do I claim a wrench in which the sliding jaw is operated by a single male screw rosette working in a rack applied to the stationary jaw.

Nor do I claim a wrench having its sliding jaw operated by a single male screw, whose milled head enters a recess or notch made in the shank, and has a pivot extending from it and working in a step made in a projection from the handle; such being the construction of the wrench of Doring Coes, as patented April 16, 1841. From this latter my improved wrench differs materially, inasmuch as it has two reversed male screws and its rosette; instead of being stationary in other respects than being capable of being revolved, will move endwise with the screws when they revolve. Furthermore, my improved wrench has the cylindrical slider K so made as not only to revolve with the male screws, but move endwise with them, and perform the function of maintaining the male screw rosette in connexion with its screw rack at whatever distance the rosette may be from the projection O. No such slider is found in Coes' wrench, because it is not necessary there; for in such there is no endwise movement of the screw, and no worm rosette and rack to be maintained in connexion. Coes uses a pivot, working in a cup or step, and both are so formed that no endwise motion of the pivot can take place.

But I *claim* a wrench provided with two reversed male screws for operating its movable jaw, arranging the lowermost screw G to work in a screw rack H, on the shank A of the wrench, and providing the said screw with a cylindrical slider K, extending below it, and operating so as not only to turn around, but move longitudinally with the screw, and in a socket piece O connected with the handle; the whole being substantially as described.

No. 21,196.—Francis D. Haywood, of Malden, Mass.—*Improved Wrench.*—Patent dated August 17, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The wrench constructed substantially as described; that is, combining with the head or upper jaw, when rigidly connected with its shank, a brace *c* and screw arranged respectively on opposite sides of and parallel with the said shank, for the purposes of insuring true play of the slide or lower jaw, and of keeping the slide and head constantly parallel.

No. 22,122.—Joseph Hyde, of Troy, N. Y.—*Improved Screw Wrench.*—Patent dated November 23, 1858.—This wrench is operated by moving the thumb-piece M, which will then move the jaw E towards the jaw L, or from said jaw, as the case may require. This wrench is taken in its cast form, and put together and riveted without anv other finish.

The inventor says: First. I *claim* the arrangement of the thumb-piece M and the screw *c*, in the manner and place described.

Second. I claim making the sliding jaw E in two equal parts, divided on a vertical line with the bar D and the jaw L, so as to cast the nut R and the recess H at the same casting of the said sliding jaw.

No. 20,291.—Alfred Monnier, of Camden, N. J.—*Improvements in Manufacture of Metallic Zinc.*—Patent dated May 18, 1858.—This improvement consists in obtaining metallic zinc by a combination of two metallurgic operations: first, by separating the gangue from the rest of the ore, as a preliminary operation, or by applying to the ore a degree of heat such as would separate the oxide of zinc, or a large proportion of it, from the gangue, or by treating the ore with heat in connexion with lime or other flux, the more effectually to remove the gangue; and secondly, in heating the impure oxide of zinc by heat and carbon in a suitable retort or muffle, and obtaining therefrom metallic zinc.

Claim.—The process of obtaining metallic zinc from its ores by means of the combined metallurgic operations, substantially as described.

III.—FIBROUS AND TEXTILE.

No. 19,647.—Alfred E. Nichols, of Lowell, Mass.—*Improvement in Spinning Bobbins.*—Patent dated March 16, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—A slotted bobbin, having a spring ring D E, or its equivalent, so applied to it as to impart increased adherence of the slotted portion of the spindle on which it is placed, essentially in the manner and for the purposes fully set forth and described.

No. 19,231.—Sewall H. Bowker, of Worcester, Mass.—*Improvement in Machines for Forming Bonnet Frames.*—Patent dated February 2, 1858.—This invention is an improvement upon the so-called French dies used for forming the crown frames of bonnets, and in the apparatus for working them. By these improvements the frame for the whole bonnet is formed of one piece of material, and at one operation.

The inventor says: I *claim* the row of pins S S S, or their equivalents, substantially as described.

No. 20,837.—Hiram E. West, of Norton, Massachusetts.—*Improvement in Machinery for Pressing Straw Bonnets and other articles of varying thickness.*—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* a mould, either hot or cold, to form the article pressed, in combination with a flexible presser E operated by a fluid substance, either liquid or gaseous, substantially as described, so as to press the article or substance to be shaped or moulded into the mould, and give it the form or shape required.

I claim the use of cold water or other cold liquid to operate the flexible presser in combination with a hot mould, so that the cold flexible presser will condense the moisture evaporated or driven from the article pressed by the hot mould, and leave said article nearly or quite dry.

I also claim the process of shaping bonnets, hats, and other articles, by pressing them into or on to a mould A, either hot or cold, by means of a flexible presser, operated by some liquid or gaseous substance, substantially as described.

No. 22,100.—Andrew B. Clemons, of Derby, Connecticut, assignor to The Birmingham Iron Foundry Company, of Birmingham, Connecticut.—*Improvement in Braiding Machines.*—Patent dated November 16, 1858.—The nature of this invention consists in so forming the weight which assists in regulating the tension of the thread as to enable it to have an up and down movement beside the vertical guide-bar, and surrounding said guide-bar above the weight with a metallic block having a flanch at its side, which projects over the rachet teeth or notches formed on the top of the bobbin in such a manner as to enable the thread from the bottom to be passed through an opening or eye in the upright guide-bar, thence under the lower end of the weight, and thence through an eye at the upper end of the guide-bar to the object to be braided, whereby the diameter of the winding portion of the bobbin may be greatly reduced, and the bobbin made to hold much more thread, and turned with less friction than if the tension weight were arranged within a box at its centre, as in the ordinary method.

Claim.—Combining and arranging the tension and pall blocks or weights H K, which have a rising and falling movement over the vertical guide-bar E, in relation to the lower eye F in the bar E and the bobbins D described, for regulating the paying out of the thread from the bobbin, and consequently its tension in the manner set forth.

No. 21,568.—A. M. Lanpher, of Gloucester, New Jersey.—*Improvement in Brush Cylinders for Spreaders, Cotton Gins, &c.*—Patent dated September 21, 1858.—This invention relates to that class of machines which are used in cotton mills for picking and spreading the cotton as it is taken from the boles and passed on to the rollers preparatory to carding, and consists in the application and use of a cylindrical brush, constructed and arranged whereby the brush, in combination with the saw cylinder, not only performs the office of the

"willow," but that of the beater and blower at the same time, without danger of setting fire to the mill.

The inventor says: I am aware that metallic fans have been used on the ends of a cylindrical brush in the cotton gin, as described in E, Carver's patent; and I am also aware that brushes have been arranged around the periphery of the end of the cylinder, and that such an arrangement was patented by B. D. Gullet, in 1858; but while I believe I can prove priority of invention over Gullet, I deem my arrangement essentially different from an improvement upon his, as it combines the advantages of the fans of Carver with the protection against fire attained by Gullet. I therefore *claim* the brushes on the ends of the cylinder when arranged substantially as above described, for the purpose of preventing the filaments of cotton or other fibrous substance from becoming entangled in the journals and for preventing accidents by fire.

No. 21,685.—Richard Kitson, of Lowell, Massachusetts.—*Improvement in Card Clothing.*—Patent dated October 5, 1858.—This invention consists in so forming the pointed teeth for card clothing for cotton gins and wool burring machines, that when the clothing is wound upon a cylinder or fastened to an endless belt the points will be below the thick points of the wires, and the thick parts of the wires which constitute the heels of the teeth will form smooth surfaces for the seeds or burs to roll upon, and thus prevent the latter from coming in contact with, and being broken by, the joints; and also prevent the damage which the teeth would receive by their points coming in contact with the seeds or burs.

Claim.—Constructing the teeth so that when in place their points are below or less prominent than and protected and guarded by their thick parts or heels, substantially as and for the purpose specified.

No. 19,585.—Charles G. Sargent and Francis A. Calvert, of Lowell, Massachusetts —*Improvement for Clothing for Carding Cylinders.*—Patent dated March 9, 1858.—Iron, steel, or other wire of a suitable size is rolled between plain rollers, so as to produce a thin flat strip or tape. The teeth are then formed upon one side of this strip, and these teeth are afterwards turned up at right angles to the strip, or the teeth may be bent by the same punch which forms the teeth, it being so formed that as it descends to form one tooth it shall bend the one last made.

The inventors say: We are aware that clothing for carding cylinders and burring cylinders has been made by punching up teeth from short strips of sheet metal, which were secured longitudinally to the cylinder, and we therefore lay claim to no such invention.

But we claim the described method of making clothing for burring and carding cylinders, the teeth being formed upon flattened wire and bent at right angles to the plane of the strip of metal which sustains them, for the purpose set forth.

No. 21,364.—Charles E. Price and Joseph Haythorn, of Thompsonville, Connecticut.—*Improvement in Carding Machines.*—Patent

dated August 31, 1858.—This invention consists in the employment of a revolving grooved or threaded cylinder applied below the comb, which removes the fleece from the doffer, and near to and parallel with the doffer, for the purpose of receiving the fleece as it is struck from the doffer by the comb and conveying the same away, by means of its revolutions, in a direction parallel with the axis of the doffer, through a tube arranged at one side of the machine.

Claim.—The spirally grooved or threaded cylinder E, applied in the manner substantially as described, in combination with the doffer and comb, and with a tube F to operate as set forth.

No. 20,037.—Gilbert H. Chesbro, of Stafford, Connecticut.—*Improved Device for Turning Down the Edges of Elastic Cloth.*—Patent dated April 27, 1858.—The improvement in this machine consists in turning the edges of the faced side of the cloth over as it passes through or between the compressing cylinders, to meet and unite with the edge of the back side or lining, making perfectly finished, smooth, and firm edges on both sides of the cloth, and leaving a smooth and perfect surface on the face side and back side of said cloth.

Claim.—The plate B, constructed and operating as described, for the purpose of turning the edges of the face side of the cloth over as it passes between the compressing cylinders.

No. 21,930.—Milton D. Whipple, of Charlestown, Massachusetts, assignor to Alfred B. Ely, of Boston, Massachusetts.—*Improvement in Forming Bats for Felt Cloth.*—Patent dated October 26, 1858.—The first part of this improved process of preparing the bat for felting consists in shortening the staple used, by breaking or tearing in pieces the fiber; this gives a greater number of short fibers or ends to be interlocked with each other when the bat comes to be fulled.

The second part consists in a combination of certain devices for working the wool and making it into a bat after its staple has been shortened.

The inventor says: 1st. I *claim* shortening the staple, in the manner and for the purpose substantially as set forth, previous to forming the bat.

2d. I claim the combination of the draw rolls 1 and 2 with a brush cylinder B, a doffer C, and a suitable device upon which to form the bat, operating in the manner substantially as described for the purpose specified.

No. 19,235.—Thomas B. Butler, of Norwalk, Connecticut.—*Improvement in the Mode of Forming the Bat for Making Felt Cloth.*—Patent dated February 2, 1858.—The nature of this invention will be understood by an examination of the claim. The engraving is too elaborate for publication.

The inventor says: I do not claim the method of forming a bat of fibers deposited lengthwise, for that is open to the public; nor the method of forming a bat by alternating layers of lengthwise and transverse fibers, for that is covered by the Arnold patent referred to.

But I *claim* the arrangement of the machines, or their equivalents,

in the manner substantially as described, operating in combination, for the purpose of forming a bat, by the interposition of a layer or sliver of diagonal fibers between the alternating layers of longitudinal and transverse fibers, as set forth.

No. 21,931.—MILTON D. WHIPPLE, of Charlestown, Massachusetts, assignor to ALFRED B. ELY, of Boston, Massachusetts.—*Improvement in Machinery for Fulling the Cloth in the Piece.*—Patent dated October 26, 1858.—The object of this invention is to avoid the partial pulling and strain upon any portion of the cloth, and consists in so manipulating it during the felting process that it shall at no time be subjected to strain, but only to compression.

Claim.—Fulling or felting cloth in the piece, by the action of rollers revolved alternately in one direction and the other, when the cloth is wound loosely on a spool, in the manner substantially as set forth.

No. 20,695.—JOHN P. BOYD, of Charlestown, Massachusetts —*Improvement in Machines for Turning Selvages in Cloth.*—Patent dated June 29, 1858.—The object of this invention is to facilitate the construction of sails for vessels, or in other words to prepare for being sewed the canvas of which they are composed, by turning down its selvage or edge in an expeditious and perfect manner.

The inventor says: I *claim* a combination of the following devices or their mechanical equivalents, viz: one or more guiding ledges B C, a bending or creasing roller C, a shoe or turning cam *b*, and one or more flattening or pressing rollers *a*, applied together and to a table or bed A, so as to operate substantially in manner and for the purpose as specified.

And in combination therewith I claim the press board *d*, arranged with respect to the table, and the said devices for turning and pressing the selvage of the cloth, substantially in manner and so as to operate on the cloth as specified.

No. 20,677.—ALBERT A. WOOD, of Jersey City, New Jersey.—*Improvement in Machines for Picking Cop Waste.*—Patent dated June 22, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The combination described of a reciprocating toothed bed F, with vibrating toothed feeding rollers D D^1, or their equivalent, with a stationary toothed cover, when the teeth are constructed and arranged in reference to each other in the manner described and shown, to pass the waste or cotton through the machine without seriously rending the fiber, and at the same time securing a precise and even feed to the bed by the combination of the vibrating toothed rollers working at a corresponding speed as set forth.

No. 19,554.—CHARLES FEICKERT, of New York, New York.—*Improvement in Machinery for Manufacturing Plated Cord.*—Patent dated March 9, 1858.—The cotton threads from the spools U U, after passing through the guides *u u* and notches 55, in the flanges *f f*, are

by the rotary motion of the strand spindles, twisted together to form the strands which, after passing through the central holes *i i* in the head pieces S^1 S^1 of the spindles, are covered with the threads of silk or wool from the spools V V, which latter thread after passing through guides *v v*, are laid evenly by passing through the notches 6 6 in the flanges f^1 f^1 and wound around the strand. The strands thus twisted and covered are taken up by the regenerators R R and conveyed to the pulleys *r r*, which are combined to operate like the laying block of a rope machine, and after passing between the pulleys, the strands are twisted together by the rotary motion of the laying spindle, and as fast as they are twisted into a cord it is taken up by the spool Q.

The inventor says: I *claim*, first, the construction of the strand spindles, substantially as described, whereby the operations of twisting together the threads to form the strands and the covering or plaiting of the strands are performed simultaneously and by the same rotary motion, and a uniform twist thus given to the threads of the body and of the plaiting or covering.

Second. The regulators R R, applied substantially as described, between the strand spindles and the laying spindles, for the purposes set forth.

Third. The arrangement of the strand spindles, the laying spindle, and the rollers *r r*, or other equivalent for laying the strands, substantially as described for the purpose set forth.

No. 20,690.—James A. Bazin, of Canton, Massachusetts.—*Improvement in Machinery for Braiding Cordage.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not intend to restrict myself to the use of the particular number of spools mentioned in the description, it being obvious that by varying the size of the circular geared plate *gg*, any number of spools which can be divided by three can be used.

I *claim* the combination of the gears *m m*, geared circle 9 9, and gears *o o*, with their curved arms, whereby one spool and its strand is made to travel around two stationary ones, and thus form an interlocking twist, as described.

I also claim, with the above combination of devices, the use of a series of double gears *o o o o* whereby the spools can be revolved in either direction, according to the direction of the twist of the yarns.

No. 20,691.—James A. Bazin, of Canton, Massachusetts.—*Improvement in Manufacturing Braided Cordage, Webbing, &c.*—Patent dated June 29, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

Claim.—The improvement in the manufacture of cordage, webbing, or other similar fabrics, which consists in laying up or so combining the strands as to form an interlocking twist, in which each and every strand passes around and interlocks with two others, as set forth, and thereby brings the strain equally upon each strand.

No. 19,394.—Cullen Whipple, of Providence, Rhode Island.—*Improvement in Drawing Cotton, &c.*—Patent dated February 16, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The method described of drawing cotton, wool, flax, or other fibrous materials, viz: by means of a revolving toothed or card-clothed cylinder A and a single pair of drawing rollers B C, which draw the fibres directly from the teeth of said cylinder A, the surfaces of said rollers B C revolving as much faster than the surface of cylinder A as is requisite to produce the desired degree of drawing.

No 21,932.—Milton D. Whipple, of Charlestown, Massachusetts, assignor to Alfred B. Ely, of Newton, Massachusetts.—*Improvement in Machinery for Combing Cotton.*—Patent dated October 26, 1858.—In the engravings is represented a double acting combing machine, having two sets of cards, nippers, and doffers so arranged that the arms which carry the nippers are vibrated, and one pair of nippers is carrying the cotton which it has drawn from the feed rolls up to one doffer, the other pair of nippers will be returning for a fresh supply to be carried up to the other doffer.

The inventor says: First, I *claim* the vibrating elastic feed roll and permanent knife edge for holding the staple, as set forth.

Second, I claim the combination of the feed for introducing the material into the machine the vibrating card *d*, and nippers, and the stationary cards *t* and b^1, operated in the manner substantially as described.

No. 20,270.—Thomas Oliver, of Yazoo City, Mississippi.—*Improvement in Machines for Cleaning Cotton.*—Patent dated May 18, 1858.—The invention consists in the employment of a series of toothed rollers *a b c d* and *e* and a fan D, so arranged that the cotton is loosened and its fibres separated one from the other, so as to "lighfen up" the mass and detach or loosen the dirt and other foreign substances from it. The cotton being discharged in a thin layer or sheet so as to be effectually operated upon by a blast generated by the fan, the blast separating the dust and other light impurities from the cotton. This invention also consists in connexion with the toothed rollers and fan, a toothed endless apron F arranged relatively with a guide board G, whereby husks and other foreign substances which the cotton may contain, and which are too heavy to be acted upon by the blast, are separated from the cotton.

Claim.—The arrangement of the toothed rollers *a b c d* and *e*, the guides *h* and *g*, and toothed carrying apron F, constructed and operating together in the manner for the purpose specified.

No. 21,270.—John W. Newell, of New Brunswick, New Jersey.—*Improvement in Elastic Fabrics.*—Patent dated August 24, 1858.—This invention consists of a new article of elastic fabric produced by means of combining india rubber, or gutta percha, or their compounds, or the compounds of either of them, or other elastic gum, with a plaited or braided fabric, when applied either by being cemented to the braid in strips or sheets, or in a plastic state.

Claim.—An elastic fabric formed by the application of an elastic gum to the side of braid, substantially as described.

No. 20,267.—JOHN GUJER, of Philadelphia, Pennsylvania.—*Improvement in Thick Woven Fabrics.*—Patent dated May 18, 1858.—The sets of warp threads 1 1 and 4 4 pass around the sets of filling threads A A^1 and the sets of filling threads B B^1, and are united together. The sets of filling threads 3 3 and 6 6 pass around the filling B B^1 and C C^1, and are also united firmly together and so on. In this fabric every set of warp threads turn around each of the outer threads A A and F F, and crosses all the other filling threads diagonally.

Claim.—The manufacture of stout textile fabrics for the purposes above named, of considerable thickness, in which all the warp threads are interwoven with the filling threads, substantially in the manner described.

No. 20,263.—THOMAS FRANCE, of New York, New York.—*Improvement in Woven Tucked Fabrics.*—Patent dated May 18, 1858.—For weaving the fabric plain four leaves of harness are required, two for each warp. In weaving the straight part *a a* of the fabric all four leaves of harness are operated and both warps are used, but on arriving at the point where a tuck is to be made the weaving of one of the warps is stopped, by suspending the operation of its two leaves of harness, and the weaving of the other warp, which may be termed the tuck warp, continues for a sufficient distance to form the tuck, after which the loom is stopped and the beam of the tuck warp is relieved of the friction to which it is subjected during the weaving operation, and the lay and reed brought forward to bring the last thread weft that has been woven into the said warp singly up to the last thread that has been woven into the two warps.

Claim.—The tucked fabric produced entirely by weaving, in the manner substantially as set forth.

No. 21,164.—THOMAS B. BUTLER, of Norwalk, Connecticut, assignor to LOUNSBERRY BISSELL & COMPANY, of said Norwalk.—*Improvement in Machinery for Forming Bats for Felting.*—Patent dated August 10, 1858.—This invention consists in arranging in the ordinary calender roll now in use, to felt the sliver upon the apron as it comes from the card, or the vibrating roll, a movable rod, in which the teeth are placed, which teeth hold the sliver in place while the vibration of the traversing rolls is changed, whereby an acute or any desired angle may always be formed, and by means of cams, and the movable character of the rods in which the teeth are fixed, the teeth may be withdrawn from the sliver when it is brought in contact with the apron.

The inventor says: I do not claim the rolls J, G, or F, nor any combination of them, nor the vibration of J and G, nor the process of depositing the sliver diagonally upon the roll or apron.

But I *claim* the arrangement of rows of teeth upon the calendar or felting roll, to hold the sliver while the vibration of the roll G is changed, and the angle formed substantially as described.

I also claim the rods L, springs M, pins P, and cams R, or their equivalents, arranged and operating as described, and for the purposes set forth.

No. 21,771.—S. S. Mills, of Charleston, South Carolina.—*Improvement in Machines for Separating the Fibres from the Pulp in Hemp Leaves.*—Patent dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim preparing the hemp leaves by boiling or steaming the same in vats, for this has been previously done in preparing ordinary hemp stalks.

But I *claim*, first, the toothed cylinder H, concave C, provided with the steam or water pipe S, and reciprocating bar D provided with the clamp E, arranged substantially as shown for shredding the hemp, as set forth.

Second. The vibrating toothed plates Q Q, in combination with the reciprocating clamp bar L, and steam or water pipes R R, for the purpose of heckling the hemp, as described.

Third. The cylinder H provided with the longitudinal plates *e*, and the concave I provided with the loaded plates or flaps J, combined, arranged substantially as shown for the purpose of skutching the hemp or separating the pulp from the fibre.

Fourth. The combination of the tooth cylinder B, concave C, toothed plates Q Q, clamp bars D L, cylinder H, and concave I, provided respectively with the plates *e* J, when the whole are arranged for joint operation, substantially as and for the purpose specified.

No. 21,077.—Azel Storrs Lyman, of New York, New York.—*Improvement in Separating the Fibres of Wood.*—Patent dated August 3, 1858.—The claim and engraving explain the nature of this invention.

Claim.—The mode of separating the fibres of wood, flax, or other fibrous substances, for paper, cloth, or other purposes, by charging the mass with hot water, steam, compressed air, or other elastic fluid, while in a cylinder or other suitable receptacle, and then causing it to be projected from said receptacle into the atmosphere, or any space where it is subjected to a sufficiently less pressure to cause its disruption by the sudden expansion of the fluid within it, substantially as specified.

No. 19,600.—Oliver Woodworth, jr., and John D. Page, of East Hartford, Connecticut.—*Improvement in Machines for Picking Fibrous Material.*—Patent dated March 9, 1858.—The nature of this improvement will be understood by reference to the claim and engravings.

The inventors say: We *claim* the combination of two or more conical cylinders, having teeth placed spirally around them at proper intervals, and within a suitable case having teeth arranged in such manner as to allow the teeth in the cylinders to pass between them, for the purpose described and in the manner substantially as set forth.

We wish it understood that we do not confine ourselves to the precise dimensions given, but vary according to the kind of stock used and quantity required.

No. 21,659.—Alexander Douglas, of New York, N. Y.—*Improvement in Folding-Guides.*—Patent dated October 5, 1858.—This invention consists of a peculiar tube of such interior dimensions and form that it sustains and guides the cloth, and, by folds in the said tube, compels the cloth drawn through it to be folded along three lines, so as to produce a binding with both edges concealed, without destroying the stiffness of the cloth or giving it any disposition to curl.

The inventor says: I do not confine my invention to the sewing of any particular material, but only to such work as requires both edges of the material to be turned under and protected from wear. I do not know or believe that it is practicable to produce bindings similar to mine by any means previously known. Bindings have been folded along the middle by means analogous to mine, but the edges of the binding were left exposed. Various hemmers have also been invented for folding under the edges of cloth, but they are not capable of being crowded into so limited a space as is required for this purpose, nor of being constructed so cheaply as mine; beside which, they offer more resistance to the passage of the cloth, and bend or fold the same in a manner which impairs its stiffness and gives it a disposition to curl, which renders it impossible to produce so evenly folded and evenly sewn work as mine, if indeed, it is possible, as I doubt, to accomplish the object at all by such means. To enable the work to go on continuously and smoothly, the work must be delicately and gently supported on all sides, and carefully preserved from any deranging influences, among the worst of which influences would be severe pulls in any direction, and the curling and limbering effect produced by being drawn through hemmers.

I claim the peculiar flattened tube B, folded upon itself, as described, so as gradually to fold the enclosed material along three lines, and at the same time to support it on all sides, and preserve its stiffness at all other points, substantially as described and for the purposes set forth.

No. 19,041.—James F. Orr, of Orrville, Alabama.—*Improvement in Cotton-Gins.*—Patent dated January 5, 1858.—In the engraving R is the rib, jointed as shown at *a*, or made rigid, if desired; *o o o* are openings through the rib to carry off the seed and dirt; S represents the saw, and shows its position relative to the ribs and openings.

Claim.—Making in the ribs or grates of cotton-gins, either jointed or rigid, one or more openings for the passage of seed and dirt, as set forth.

No. 19,097.—David G. Olmstead, of Vicksburg, Mississippi.—*Improvement in Cotton-Gins.*—Patent dated January 12, 1858.—This invention is designed for ginning cotton which shall not have been separated from the bolls, and the improvements are mainly applied so as to act on the cotton before it shall be subjected to the ordinary operation of ginning. Therefore, the saws B B, grate L, and its stripping-brush C, as well as the general arrangement of the frame A, may be as usual. The improvement may be added to gins of ordinary construction.

The inventor says: I am aware that a mote-brush has been used in the same relation to a stripping-brush and saws which my screen-brush occupies; therefore I disclaim such a combination and arrangement, irrespective of the kind of screen brush which I employ.

But I *claim* the ribs I I, constructed, arranged, and operating in connexion with the saws B B, substantially as described.

I also claim, in combination with the ribs I I and saws B B, the revolving feeding-screen D, located beneath the feed-box G and over the grate Q, substantially in the manner and for the purposes specified.

I also claim the combination of the revolving screen-brush E, with the stripping-brush C, when said screen-brush is constructed, operated, and arranged in relation to the brush C and the saws B, in the manner described and for the purpose specified.

No. 19,324.—Lewis J. Chichester, of New York, N. Y., assignor to Henry G. Evans, Samuel Barstow, and Daniel L. Winteringham, of said New York.—*Improvement in Cotton-Gins.*—Patent dated February 9, 1858—.This invention consists in the employment or use of two rollers A B grooved circumferentially and fitted together in the same plane, so that the projecting flanches *b* of each roller will work in the grooves *a* of its fellow or adjoining roller.

The inventor says: I do not claim broadly the employment or use of grooved rollers, in themselves considered, without reference to their application to cotton-gins; for grooved rollers are used in sheet metal-working devices, crushing-machines, and various other machines for different purposes.

But I *claim* the rollers A B, grooved circumferentially, as shown, and having the peripheries of their flanches *b* smooth or serrated, the rollers being fitted together with or without the elastic wings *e*, substantially as and for the purpose set forth.

No. 19,415.—T. C. Garlington, of Lafayette, Alabama.—*Improvement in Cotton-Gins.*—Patent dated February 23, 1858.—The saw teeth S take hold of the fibre and draw it gradually until the roller R is reached. The encounter of the seed with the roller causes the fibre to be stripped from it to a great extent unbroken. The cotton passes under the transverse grooves of roller R and is stripped from the saws by the brush B, which also cleans the roller R.

The inventor says: I do not claim broadly placing a roller above the saws, nor do I claim spirally grooving said rollers, as shown in the patented gin of Parkhurst.

But I *claim* grooving the roller R transversely above each saw and obliquely across the said transverse grooves, substantially as set forth, when used in combination with ribs *r* which diminish the protrusion of the saws gradually, as described.

No. 19,417.—Benjamin D. Gullett, of Aberdeen, Mississippi.—*Improvement in Cotton-Gins.*—Patent dated February 23, 1858.—A represents the common ginning cylinder and B the usual stripping brush; below this brush B there is another brush D of equal size,

called the carding-brush, which is made to revolve about one-fourth as fast as brush B. In front of these brushes there is a cylinder E which bears upon its periphery a series of comb-plates or brushes *a*, which are made of steel saw plate.

The inventor says: I *claim* the combination of the comb-brush E, the gin-brush B, and the gin A, in the manner set forth; the brush B being arranged between the comb-brush and the gin-brush, in the manner and for the purposes set forth.

Second. I claim the lower carding-brush D, arranged and operating as set forth, in combination with the gin-brush and comb-brush, as set forth.

Third. I claim the blast-board F, in combination with the gin A, the gin-brush B, and the carding-brush D, in the manner set forth.

Fourth. I claim the end brushes *k k*, constructed and operating as set forth.

Fifth. I claim the curved guards L, arranged and operating as set forth, in combination with the lower carding-brush D and stripper E, as set forth.

No. 19,598.—Francis L. Wilkinson, of Adam's Run, S. C.—*Improvement in Cotton-Gins.*—Patent dated March 9, 1858.—This invention consists in having one or both rollers B of the gin grooved spirally for the purpose of readily detaching the seed from the cotton, and also using, in connexion with the grooved rollers, stripping-brushes *v w* and a guard-plate E.

The inventor says: I am aware that the plate E has been previously used for the purpose stated, and stripping-brushes have also been used; I therefore do not claim separately the plate E.

I am also aware that grooved rollers have been used in cotton-gins, and therefore I do not claim them as my invention.

Nor do I claim, separately and irrespective of their relative position with the rollers D B, the brushes *v w* on the bars H I.

But I *claim* the arrangement, shown and described, of the spirally grooved rollers B D, one or both, stripping-brushes *v w*, and plate E, for the purposes set forth.

No. 19,679.—Hiram W. Brown, of Millville, New Jersey.—*Improvement in Cotton-Gins.*—Patent dated March 23, 1858.—The cotton is placed upon the plate W; and motion being applied to the shaft *b*, the roller B is rotated, and the cotton is drawn up over the upper edge of the plate R and down between the plate and roller B; at the same time the cotton is subjected to the action of the plate L, and the seeds are stripped from the cotton by the action of said plate.

The inventor says: I am not aware that a roller and vibrating and stationary plates have been previously used for ginning cotton, but arranged in a manner different to that shown; so far as I am aware, no provision has been made for the ready discharge of the seed from the cotton; I therefore do not claim broadly a roller B, vibrating-plate L, and pressure-plate R, irrespective of the arrangement and connexion with the parts shown, as these are seen in the patent of Fones McCarthy, dated July 3, 1840.

But I *claim* the roller B, stripping-plate L, and pressure-plate R, arranged as described, in combination with the yielding or vibrating feed board or plate W, provided with the rods *o*, the rods *n*, and doffer N; the whole being arranged to operate conjointly as and for the purpose set forth.

No. 20,120.—James N. Wilson and George W. Payne, of Memphis, Tennessee.—*Improvement in Cotton-Gins*—Patent dated April 27, 1858.—The nature of this invention relates to the feeding of the cotton to the saws by means of a feeding cylinder; to the stripping of cotton of coarser impurities by means of projections on the ribs between which the saws run, and to the peculiar arrangement of the belting of the feeding cylinder, which permits the feeding-hopper to be raised, lowered, or adjusted to the ginning saws without previously stopping the machine.

The inventors say: We *claim* the adjustable hinged hopper and rib frame, in combination with the belt arrangement described, by which the side frame can be adjusted, raised, or lowered without stopping the motion of the machine, substantially in the manner set forth.

We also claim the projections *g* on the ribs, substantially in the manner and for the purpose described.

We also claim the toothed feeding cylinder G, in combination with the inclined grate H, partition *p*, and hinged cover *n*, substantially in the manner and for the purpose set forth.

No. 20,051.—John Du Bois, of Greensboro, Alabama.—*Improvement in Cotton-Gins.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The use of the flange *b* on the face of the rib, constructed, arranged, and operating in the manner described; that is to say, the flange situated opposite the lower edge of the hopper-board *c*, with the lower end extending below that point, to separate the ginned seed from the cotton and facilitate their passage from the roll-box.

No. 20,086.—Stephen R. Parkhurst, of New York, N. Y.—*Improvement in Cotton-Gins.*—Patent dated April 27, 1858.—The nature of this invention consists in connecting the stripper and ginning cylinder with an "internal gear," viz: a female gear-wheel surrounding and driving the pinion on the end of the stripper-shaft, by which means the proper motion is given to the stripper *c* from the cylinder *b*; the two are compelled always to rotate simultaneously, there being no chance for the cotton to clog.

The inventor says: I do not claim the ginning cylinder or stripper, nor the combination of the same with the brush blower, each revolving in the directions specified.

Neither do I claim internal gears in themselves.

But I *claim* the manner described of connecting a ginning or card cylinder with a stripper, by combining with said cylinder and stripper the internal gear *h* and pinion *i*, substantially as and for the purposes specified.

No. 20,216.—Enoch Osgood, of Boston, Massachusetts.—*Improvement in Cotton-Gins.*—Patent dated May 11, 1858.—In the operation of this machine the cotton, with the seeds and dirt in it, is laid upon the endless apron *i*, and by such is deposited upon the inclined rack M, or in the space between the same and the adjacent cylinder B, and by such cylinder the double concave or guard C and the clearer D it will be separated from its seed and extraneous matters.

Claim.—The combination of the oscillating clearer D and the concave guard or plate C, constructed and arranged with the cylinder B and the rack M, and made to operate therewith, substantially in the manner and for the purpose as before specified.

No. 20,747.—J. Alexander Ventress, of Woodville, Mississippi.—*Improvement in Cotton-Gins.*—Patent dated June 29, 1858.—The nature of this invention consists in making the saw plates C much thinner upon their edges, where their teeth are cut, and for a short distance below the gullets or roots of the teeth, than the remaining portions of the plates, so that the cotton cannot be crowded between said saw plates and the ribs B in ginning by any vibration of the plates or jaws.

Claim.—In combination with the ribs set close up to the saws, forming of a clear space between the ribs at that point where the teeth of the saw carries the cotton through them, to prevent said cotton from being brought in contact with said ribs, substantially as and for the purpose set forth.

No. 20,904.—Joseph Tetlow, of Taunton, Massachusetts.—*Improvement in Cotton-Gins.*—Patent dated July 13, 1858.—The gins in which this improvement is made are those such as are used for ginning Sea Island or long staple cotton, and the intention is to produce a machine which will gin long staple cotton more expeditiously, and at the same time work in a thorough manner, without injuring the fiber in the least. Grooved rollers used in connexion with vibrating plates and adjustable feed-boards, arranged so as to operate together and produce the effect desired.

Claim.—The rollers B B, one or more, grooved as shown, namely, longitudinally and parallel with their shafts, and grooved also in a zigzag manner, in connexion with the adjustable stationary plates S and vibrating plates *b*, arranged to operate as and for the purpose set forth.

No. 21,357.—Henry C. Parkhurst, of New York, N. Y.—*Improvement in Cotton-Gins.*—Patent dated August 31, 1858.—The nature of this invention consists in the application of stationary end pieces to the hopper, combined with movable half end pieces connected with the breast board and jointed on to the fixed end pieces, whereby the fixed end pieces retain the cotton in the hopper, preventing the same from working over the end of the cylinder and around the journal, at the same time free access is provided for clearing the hopper when required.

The inventor says: I do not claim generally a hopper for cotton-gins.

Neither do I claim the mouth or opening beneath the board *i*, adjustable as set forth.

But I *claim* constructing the hoppers of cylinder cotton-gins with the fixed end pieces *f* and movable end pieces *g* on the breast-board *h*, attached by the joint 2, as and for the purposes set forth.

No. 21,582.—John L. Tuttle, of Bridesburgh, Pennsylvania — *Improvement in Cotton-Gins.*—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention.

Claim —So combining a toothed cylinder with an open breast that allows the fibre to pass through it, but holds back the seeds, as that the cylinder shall work against the edge of said open breast, and carry the fibre past it, whilst the seeds shall roll up against the surface of said breast, and draw the lint that has not been taken from them up through the openings, whence they are turned over and returned again and again by the action of the cylinder to the breast until divested of all their fibre, substantially as described.

No. 21,714.—A. Q. Withers, of Byhalia, Mississippi.—*Improvement in Cotton-Gins.*—Patent dated October 5, 1858.—The brush cylinder F strips the cotton from the ginning saws and conveys it to the carding saws G, which revolve in the direction opposite to that of the brush cylinder, and at about once and a half or double its velocity. These saws are smaller than the ginning saws, with much finer teeth, and their number is twice or three times that of the ginning saws. The stripping and discharging brush H which takes the lint from the carding saws may be of ordinary construction, and revolve at a speed of about once and a half or double that of the carding saws. It discharges the lint through the spout I.

The inventor says: I *claim* the curved spring board C, situated in the "roll-box," and provided with teeth projecting from its lower edge, arranged and operating substantially as specified.

I also claim the employment of the additional brush E and carding saws G, situated between the ginning saws E and discharging brush H, and acting in combination therewith, substantially as described. In combination with the additional brush F and carding saws G, I also claim the concentric screen *i i* and "break currents" *g g g*, when arranged in close proximity to said brush and saws, and for the special purposes set forth, in connexion with their action.

No. 21,795.—Lewis S. Chichester, of New York, N. Y., assignor to Henry G. Evans, of said New York.—*Improvement in Cotton-Gins.*—Patent dated October 12, 1858.—The object of this invention is to obtain a gin that will perform its work mork more rapidly than the ordinary saw gin without injuring the staple or fibre. This object is attained by dispensing with the usual stationary breast, which consist of a series of ribs placed in a frame, and between which ribs the saws work, and the cotton is forcibly drawn through in detached masses by

the teeth of the saws, and using instead an oscillating breast, in connexion with saws armed with peculiar teeth.

Claim.—The saws C, in combination with the oscillating breast D, the parts being constructed and arranged to operate substantially as and for the purpose set forth.

No. 22,288.—Michael Hardy, of New York, N. Y.—*Improvement in Machinery for Forming Hat Bodies.*—Patent dated December 14, 1858.—This invention consists in making the picker or brush by which the fur is taken and thrown toward the pervious cone of a conical form, with the view of supplying more fur on to the base than the tip of the cone, and in combining with such conical picker or brush a feeding apron made in the form of a segment of a cone, and causing it to pass around two conical rollers, or the equivalent thereof, that fur may be supplied to every part of the length of the conical picker or brush in proportion to the diameter. This invention also consists in combining with the conical picker a series of rollers forming a concave to direct the discharge of the fur from the picker toward the perforated cone.

The inventor says: I *claim* combining a pervious cone, connecting with an exhausting apparatus, a picker or brush of a conical form, substantially as and for the purpose specified.

I also claim, in combination with the pervious cone and conical picker or brush, the apron formed and mounted, substantially as described, for supplying fur to the several parts of the length of the picker in proportion to the diameter, as set forth.

I also claim, in combination with the pervious cone and conical picker or brush, substantially as described, the employment of a series of rollers, forming a concave, substantially as described, to direct the fur toward the cone, as described.

I also claim, in combination with the two cones, the one on which the bat is formed and the other fitting over the bat, the tube connected with the exhausting fan and adapted to receive and hold the outer cone, substantially as described, to effect the transfer of the bat of fur fibres from the inner to the outer cone, as set forth.

No. 20,602.—S. W. Wood, of Washington, D. C.—*Improvement in Machines for Sizing Hat Bodies.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Sizing or planking hat bodies by rolling the bat continuously forward, that is to say, in one direction between endless belts running in opposite directions, and at different or variable velocities, as specified.

No. 21,382.—Alva B. Taylor, of Newark, New Jersey.—*Improvement in Hat Body Machinery.*—Patent dated August 31, 1858.—The picker is composed of two disks A and B, one of which (A) is stationary, while the other revolves upon its axis. These disks face each other, and are studded with teeth in concentric rings of different diameters, so that the teeth of one disk enter between those of another.

The inventor says: Having described my improvement, and a

machine in which it is embodied, it may be proper to state that I do not limit it to the precise arrangement and construction described, but intend to vary these as circumstances may render expedient. Thus, for example, both disks of the picker may be caused to revolve either in the same directions with different speeds, or in opposite directions, and the picker may be combined with a perforated former not enclosed in a forming chamber, or with other devices than those described.

I *claim* the combination of a disk picker, operating substantially as set forth, with a perforated former.

I also claim a disk picker composed of two disks, whose faces are studded with teeth, operating substantially as set forth, to pick fibrous material fed into the eye of the picker, and to discharge the picked fibre at the run thereof.

No. 19,138.—William A. Fenn, of Brookfield, Connecticut.—*Improvement in Machinery for Forming Brims of Felt Hats.*—Patent dated January 19, 1858.—The nature of this invention will be understood by an examination of the claim and engravings.

The inventor says: I do not claim, in the abstract, the employment or use of conical pressure rollers, for they are used in various ways for similar or analogous purposes.

But I *claim* the employment or use of the two pair of rollers O F N G, arranged as shown, to wit: the upper rollers O N of each pair being fitted or placed in an adjustable frame K, and the two pair of rollers rotated with varying speed, whereby the hat brim is stretched, and at the same time subjected to the necessary pressure, as described.

I further claim giving the rollers G, a certain degree of elasticity, or allowing it to yield or give vertically, to a certain extent, by any proper arrangement, when said roller G thus arranged, is used in combinaton with the other described parts, whereby the pressure of the feed-rollers N G is rendered constant, and at the same time the pressure of the rollers O F allowed to be regulated as desired, for the purpose of forming an even and perfect brim, as set forth.

No. 19,616.—James W. Beebe, of New York, N. Y.—*Improvement in Ventilating Hats.*—Patent dated March 16, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not wish to be understood as making claim broadly to the use of a sweat-leather, separated from the hat by an open space for the circulation of air; nor to the use of a perforated flanch for the admission of air to the space between the hat and the inner lining.

But I *claim* making the sweat of leather, or any of the equivalent substances usually employed for hat sweats, with a flanch pierced with numerous small holes *e e*, combined with and attached to the brim of the hat, substantially as described, so as to leave open space for the free circulation of air between the sweat and the hat.

No. 19,255.—Solomon P. Moore, of Arrow Rock, Missouri.—*Improvement in Hemp-Brakes.*—Patent dated February 2, 1858.—The motive power being applied to the wheel A, causes the crank B on the

same axis to revolve, thereby communicating a reciprocating motion to the horizontal bar C, and this being attached to the frame D D, causes it to swing on the axis E through a small circular arc. The outer vertical faces F F of the side of this frame are serrated or corrugated.

The inventor says: I do not claim any of the improvements embodied in the machine for which a patent was granted to S. A. Clements in 1853.

I *claim* so corrugating the contiguous faces of the brakes in a transverse direction to the general line of the feed and general line of the longitudinal surfaces of said brakes as to prevent the fibres or stalks from escaping the proper action of the machine by a change of direction, when combined with the brakes vibrating in relation to each other, substantially as described and shown.

No. 20,890.—George M. Newell, of Lexington, Missouri.—*Improvement in Hemp-Brakes.*—Patent dated July 13, 1858.—By shaping the swords or slats of the reciprocating gates, and giving them a circular, reciprocating motion, they have a positive downward action upon the hemp or flax, both in their backward and forward motion, and thereby cause the same to be continuously drawn down from the hopper, and to be fed down through the machine without the aid of any auxiliary feed devices; and by arranging reciprocating whipping rods or beaters below the breakers, all the shoves are removed, and thus the perfect operation upon the hemp before it leaves the machine is insured.

The inventor says: I am aware that straight slats, in a horizontally reciprocating frame, in combination with similar stationary slats, have been used previous to the date of my invention. Also, that a reciprocating whipper has been used in combination with a reciprocating gate and other reciprocating devices for breaking hemp. Such devices and combination of devices, therefore, I do not claim broadly.

But I *claim*, first, giving the slats of the pivoted frame a curve, which is concentric with the axis on which the frame A in which they hang reciprocates, and arranging said slats or swords so as to move in curved slots of stationary pillars as the frame reciprocates, substantially as and for the purposes set forth.

Second. The arrangement in the manner specified, below the breaking swords or slots, of two sets of stationary beaters or whipping rods, and two sets of reciprocating beaters or rods G G^1, the latter being attached to pivoted rocking arms provided with curved slats E^1 E^2, so that they shall reciprocate in the path of a vertical circle, and operate in combination with the stationary rods, substantially as and for the purposes set forth.

No. 21,513.—H. D. McGeorge, of Morgantown, Virginia.—*Improvement in Hemp-Brakes.*—Patent dated September 14, 1858.—The nature of this invention consists in the manner in which the breakers and cleaners are arranged and combined.

Claim.—Breaking and cleaning hemp, flax, &c., by a combination of vibrating blades *d i* and stationary blades *e k*, and clearing devices

f n acting in concert with them; the whole being arranged and operating substantially in the manner set forth.

No. 21,680.—William C. Hutchinson, of St. Joseph, Missouri.—*Improvement in Hemp-Brakes.*—Patent dated October 5, 1858.—The nature of this improvement consists in constructing a hemp-breaking machine, wherein the features of invention are a peculiarly shaped tooth or breaker, which is termed the rounded, oval, or bevelled, angular shaped tooth, together with a pendantly arranged swingle, or a vibrating sword or beater, with a horizontally arranged reciprocating or a sliding scalloped edged, double jaw hatchel, or beaters.

The inventor says: I *claim* the tooth described and illustrated in the drawings as constructed, to be used in the drums of cylinder hemp brakes, as set forth.

I also claim the combination and arrangement of the pendant scalloped edge swingle P P P *q q r r*, with the sliding or reciprocating double jaw hatchel *s s s s t t*, arranged and operated substantially in the manner as set forth and described.

No. 21,983.—William Shelby, of Waverly, Missouri.—*Improvement in Hemp-Brakes.*—Patent dated November 2, 1858.—A represents a horizontal rectangular frame, which is properly supported at a suitable height, and on which two parallel bars B B are secured longitudinally at a suitable distance apart. C is a bar which is placed between the two bars B B, and allowed to work freely between them. To the under side of bar C a traverse bar D is attached, said bars resting on longitudinal bars E; and to the traverse bar D is attached an inclined bar F, said bar F having one end of the connecting-rod G connected to it, the opposite end of the rod G being attached to crank H, which is on the driving or power shaft H^1 of the machine.

The reciprocating bar C is provided with beaters J, which are placed parallel with the sides of its bar. The beaters J are not quite as high as the blades I. To the bars I, at their inner sides, vertical metallic plates K are attached, said plates being attached to the bars near the inner edges of the blades I.

Claim.—The arrangement of the beaters or blades I J at varying distances, in combination with the yielding plates K, as and for the purposes shown and described.

No. 22,399.—Robert Heneage, of Buffalo, N. Y., assignor to Himself and Edward O. Ball, of said Buffalo.—*Improvement in Hemp-Brakes.*—Patent dated December 21, 1858.—A represents a table upon which the flax or hemp is laid in order to be carried to the brake B B^2. This consists of two fluted rollers, the one placed above the other, and both running together. Journals are formed upon their ends, which have bearings in the standards D.

C^2 is a strip of metal which is let in longitudinally across the face of the revolving cylinder *c*, and, arranged as they are with the cylinder, constitute a beater.

K is a shell of metal which lies parallel with the roller B^2, and close to it, and forms nearly a quarter circle around it. X shows a

chamber or recess for the purpose of passing the hemp into during the process of dressing.

The inventor says: First. I *claim* the combination of the reversing mechanism with the brake B B^2, beater C C^2, and shell K, substantially as described, and for the purpose of dressing hemp, as set forth.

Second. I claim the combination and arrangement of the brake B B^2 with the revolving beater C C^1, shell K, and revolving apron J, for the purpose of dressing flax, substantially as set forth.

Third. I claim the arrangement of the chamber X within the machine, for the purpose of affording room for the movements of the hemp while being dressed, substantially as described.

No. 21,264.—Samuel H. Little, of St. Louis, Missouri.—*Improvement in Machines for Breaking Hemp.*—Patent dated August 24, 1858.—The claim and engravings explain the nature of this improvement.

Claim.—In combination with the main beating cylinder F, rotating in a fixed vertical plane on the permanent frame of the machine, the arrangement of the feeding apron, breaking and crushing rollers, and concave, in a second frame adjustable on the first one, so that when it becomes necessary to adjust the concave to the beating cylinder, the parts preceding the concave in the operation shall always maintain the same relative positions to it and to each other, as set forth. Also, the arrangement and operation of the beater cylinder F, the concave J, the reel *f*, and carrying apron *g*; all as described and represented, and for the purpose specified.

No. 20,827.—Werner Staufen, of London, England.—*Improvement in Treatment of Fibre of Tampico Hemp.*—Patent dated July 6, 1858.—The claim will explain the treatment of the fibre of Tampico hemp.

Claim.—Changing the properties of the fibres of the plant known as the "Argave Americana," by first saturating said fibres with an alkaline solution, and then immediately submitting the same to the action of a high degree of artificial heat, substantially as herein described, and preparatory to using said fibres as a substitute for horse hair and bristles in the production of various useful articles.

No. 19,625.—Linus B. Cooley and James C. Cooke, of Middletown, Conn.—*Improvement in the Manufacture of Textile Hose.*—Patent dated March 16, 1858.—By springing the warp shades, and throwing in the woof successively in A and B, there is formed a single hose or pipe. After throwing in a suitable number of woof threads in A and B, the warp shades of C and D are sprung, and cross the woof from A and B to C and D, and through them successively a suitable number of times, thus forming a second single pipe or hose within the one already woven.

Claim.—The double tube or hose, as a new article of manufacture, woven in the manner and for the purpose specified.

No. 20,883.—James Peatfield, of Ipswich, Mass.—*Improvement in Manufacturing Knit Gloves.*—Patent dated July 13, 1858.—The object

of this invention is to produce seamless knitted gloves by machinery. This is done by knitting the hand of a glove and the fingers and thumb separately, each in circular form, and consequently without seam, and uniting them by knitting them together by hand.

The inventor says: I do not claim to be the inventor of a seamless knit glove, as such are knit by hand.

But I *claim* the manufacture of seamless knitted gloves by knitting the hand and the fingers and thumb separately, and uniting them in the manner substantially as described.

No. 19,370.—Joseph K. Kilbourn and Eeward E. Kilbourn, of Norfolk, Conn.—*Improvement in Knitting-Machines.*—Patent dated February 16, 1858.—The claim and engravings will explain the main features of this invention. A detailed description of this machine would take up too much space to be given here.

The inventors say: We *claim* combining the needles and sinkers with a reciprocating carriage, operating substantially as set forth.

We also claim the adjustment of the position of the needles at the time the sinkers are forming the folds of yarn by means of grooves in the nosing, whose sides converge so as to insure the uniform width of the stitches.

We also claim the combination of a reciprocating series of needles, with a reciprocating thread guide, operating substantially as set forth, so as to move at times with the needles, and to remain stationary at other times when the needles are moving.

We also claim the varying of the width of the fabric by causing the thread guide to pass down between one pair of needles and to rise between another pair by mechanism operating substantially as set forth, thus producing a selvage edge when widening is effected.

We also claim the combination of under supports, operating substantially as set forth, with a reciprocating series of needles, so as to support the needles and effect the closing of their barbs.

We also claim combining with a reciprocating series of needles and sinkers cam bars, or their equivalents, in such manner as to impart the necessary movements for forming the loops to the several members of the series in succession, substantially as set forth.

We also claim combining a reciprocating series of needles and sinkers with reciprocating mechanism for taking up the work as it is formed, substantially as set forth.

No. 19,740.—Joseph Vickerstaff, of Philadelphia, Pennsylvania, assignor to Martin Landenberger, of said Philadelphia.—*Improvement in Knitting-Machines.*—Patent dated March 23, 1858.—This improvement consists in the employment of two sets of thread guides v^1 v, actuated by a cam wheel and levers in such a manner that their respective threads may be knitted first by one and then by another set of needles.

Claim.—Imparting to two sets of thread guides the continuous vibratory movement, combined with the transposing movement described, by means of the cam wheel L, acting in conjunction with the

lever K and arms p and p^1, or equivalent devices, for the purpose specified.

No. 20,854.—Nelson P. Aiken, of Troy, New York.—*Improvement in Knitting-Machines.*—Patent dated July 13, 1858.—This invention consists in a certain mode of combining the sinker wheel or any toothed wheel gearing into and deriving motion from the needles with a movable stop H, which is applied to the belt shipper G to lock it in a position to hold the driving belt on the driving pulley of the machine as long as the knitting progresses properly, whereby, as soon as the thread breaks, or any of the loops miss, the shipper is caused to be unlocked and allowed to be moved by a spring, or its equivalent, applied for the purpose, to a position to ship the belt on to a loose pulley, and thus stop the machine.

The inventor says: I am aware that it is not new to use a belt-shipping apparatus in a knitting-machine to move the belt from the driving to the loose pulley, when the yarn breaks or gives out, and therefore I do not claim broadly this as my invention.

But I *claim* the arrangement of the shipper or belt-shifter G in the manner substantially as described, and in combination with the movable stop H, lever M, and sliding bar K, when controlled by a sinker wheel, or by any wheel gearing with and moved by the needles, for the purpose set forth.

No. 21,045 —Joseph P. Delahunty, of Cohoes, New York, assignor to Himself and Edgar S. Ells, of Troy, New York, and said Ells having reassigned his right, title, and interest in the same to Clark Tompkins, of Troy, aforesaid.—*Improvement in Knitting-Machines.*—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

Claim.—So arranging or adjusting the presser and connecting it with the yarn running to the needles B that, when the yarn breaks or fails, the presser E will move and cease depressing the barbs of the needles, and thereby prevent the casting off of the "quarter" or web, substantially as set forth.

No. 21,396.—Thomas Lovelidge, of Germantown, Pennsylvania, assignor to Himself and William Tulfirth, of said Germantown.—*Improvement in Knitting-Machines.*—Patent dated August 31, 1858.—This improvement consists in introducing between the thread guides a pressure bar, which is so connected to the guides as to press the loops formed on the needles down the latter and over the pawls, so that the fabric may consist of single instead of double threaded loops, and similar to fabrics knitted by hand, and at the same time require less material than the fabric produced by ordinary machines.

Claim.—The pressure plate E, situated between the two rows of thread guides d and d^1, and operated so as to press the loops down the needles, substantially in the manner and for the purpose set forth.

No. 21,762.—Joseph K. Kilbourn and Edward E. Kilbourn, of Norfolk, Connecticut.—*Improvement in Knitting-Machines.*—Patent

dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim* the transferring of stitches in a knitting machine from the needles on which they have been formed to other needles by means of transferring hooks, or their equivalents, which take the stitches from the needles, move along to other needles, and deliver the stitches to these other needles, operating automatically, substantially as set forth.

We also claim arranging transferring hooks with reference to the needles in such manner that they may enter the stitches upon the needles by moving along the stems of the needles toward their heads, substantially as set forth.

We also claim directing the operations of transferring hooks, or their equivalents, for transferring stitches by means of a pattern barrel, or its equivalent, operating substantially as set forth.

We also claim combining the mechanism that actuates transferring prongs with the mechanism that moves the needles of a knitting-machine in such manner that the prongs enter the stitches upon the needles at times when the latter are supported both vertically and laterally, substantially as set forth.

We also claim combining a nosing having V-shaped grooves, with transferring prongs having corresponding grooves, the grooves of the nosing and prongs acting in concert to confine the needles and direct their heads into the stitches on the transferring prongs.

We also claim controlling the operation of the machanism by means of which the relation of the thread guide to the needles is changed so that yarn is supplied to more or less needles by means of a pattern barrel, or its equivalent, operating substantially as set forth.

We also claim varying the extent of travel of the needle carriage in proportion to the number of needles at work, by means of mechanism operating automatically, substantially as set forth.

We also claim varying the periods of time at which the transferring mechanism begins to operate in proportion to the number of needles at work by means of mechanism operating automatically, substantially as set forth.

We also claim combining the widening mechanism with the mechanism that actuates the needle carriage in such manner that the period of time at which the former operates is varied in proportion to the number of needles at work.

We also claim combining the mechanism that actuates the pattern barrel, or its equivalent, with the mechanism that actuates the needle carriage, in such manner that the period of time at which the former is moved is varied in proportion to the number of needles at work.

We also claim combining the widening mechanism and the narrowing mechanism together, when both are used in the same machine, in such manner that the movement of the one to do its work is attended by a corresponding movement of the other, so that the thread guide and transferring hook, or their equivalents, are both in the proper position to operate in connexion with the selvage needle.

We also claim raising the sinkers out of the way of the prongs of the transferring instrument, substantially as set forth, so that the

latter may move along the series of needles without obstruction from the sinkers, substantially as set forth.

We also claim obtaining a pause in the endwise movement of a nut moved by a screw, by causing the screw to move endwise while it is turning in the nut, substantially as set forth.

We also claim the arrangement of the pattern holes of a pattern barrel in a helical line, so that they may be brought in succession beneath the device upon which the pattern pins operate, by a screw, or its equivalent.

We also claim operating the transferring instrument, substantially as set forth, in such manner that its movement is effected partly while the carriage is travelling in one direction, and partly while it is travelling in the opposite direction.

We also claim combining with a travelling series of needles and a rigid bar above them, stationary under supports, over which the needles ride, so that their barbs may be closed by pressure against the stationary bar above them.

No. 22,004.—Walter Aiken, of Franklin, New Hampshire.—*Improvement in Knitting-Machines.*—Patent dated November 9, 1858.—By means of the peculiar shaped cam groove each needle is drawn in just before it is moved out, thus insuring the casting off the loops from over the hooks of the needles; and as soon as new loops are formed the needles are moved out, releasing the strain upon the loops around the plates L L, thus dispensing with all friction. By means of the treble motioned cam groove, the vibrating yarn-carrier, and the mechanism to work it, is dispensed with. By means of the fingers K K the yarn is sure to be fed to the selvage needles.

The inventor says: I *claim* the peculiar shaped cam groove, constructed and operating substantially as described.

I also claim the selvage fingers, substantially as described.

No. 22,135.—Frederick Schott, of Brooklyn, New York.—*Improvement in Knitting-Machines.*—Patent dated November 23, 1858.—This invention consists in a series of improvements in those kinds of straight knitting-machines in which the needle bed has a movement back and forth, to present the needles, one or more at a time, in regular succession, into an operative relation with one or more feeders or thread conductors and a corresponding number of stitch hooks.

The inventor says: I *claim*, first, the combination of levers G and H, the dog G^1, spring k, sliding bar I, adjustable stops k^1 k^2, and the eccentric H^1, or its equivalent, on the main shaft; the whole operating substantially as described, to effect the movement of the needle bed in one and the other direction alternately.

Second. The two-grooved safety guide K^2 applied in combination with the feeder, to operate substantially as and for the purposes specified.

Third. The needle and stitch hook protector N, applied and operating substantially as set forth.

Fourth. The combination of mechanism to operate the sinker or reliever P, consisting of the cam R on the main shaft, the arm D^3 and

spring w^2 on the rock shaft, the spring w applied to the reliever bar P^1, the projections v^1 v^2 on said bar, the stationary inclined projections Z on the frame, and the stationary inclined planes Z^1 Z^2; the whole applied and operating substantially as set forth.

Fifth. The combination of the bar X, or its equivalent, furnished with teeth 20 20 21 21, and a wedge-like projection 27, the pawl 23 operated by the movement of the needle bed and the stop lever W; the whole applied to operate substantially as described, in combination with a belt shipper to stop the machine as soon as any desired number of courses have been knitted.

No. 21,566.—Joseph K. Kilbourn, of Pittsfield, Massachusetts, and Edward E. Kilbourn, of Norfolk, Connecticut.—*Improvement in Needles for Knitting-Machines.*—Patent dated September 21, 1858.—This improved knitting needle has the same general form as the knitting needles in ordinary use, *a* being the barb of the head, which, as usual, when depressed to cast off the stitches, is received into a groove in the stem. Behind this groove there is a secondary groove *b*, which is formed in the stem of the needle upon that part thereof which the stitch yarn encircles at the time transference is to be effected, so that the point of the transferring instrument, which is entered in this groove, is by it guided into the stitch upon the stem of the needle.

Claim.—The improved knitting needle having a secondary groove in its stem, substantially as set forth.

No. 20,044.—George Crompton, of Worcester, Massachusetts.—*Improvement in Looms.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not wish to be understood as limiting my claim of invention to the special construction specified, as the same end may be obtained by equivalent means.

I *claim* the employment of the two bars for holding up and holding down such of the series of jacks as are not required to be elevated or depressed at the forming of any shed, substantially as described, in combination with the jacks, the pattern cylinder or chain, and the lifter and depresser, substantially as and for the purpose specified.

And I also claim the holder bar, which acts on the ends of the heddle levers to hold them in their elevated or depressed position until the beginning of the operation of opening a shed, substantially as described, in combination with the two bars for holding up and holding down such of the jacks as are not required to be shifted during the operation of opening a new shed, substantially as and for the purpose specified.

No. 20,969.—Joseph Welsh, of Philadelphia, Pennsylvania.—*Improvement in Looms.*—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: As a multiplier of the pattern wheel of looms has been used before, and patented by Barton H. Jenks on the 24th of October, 1854, I do not claim, broadly, increasing the capacity of said pattern wheel by means of a multiplier.

But I *claim*, as an improvement in the said multiplying apparatus, the arrangement and combination consisting of the extra ratchet wheel G and its pinion H, in connexion either directly or indirectly with the pattern wheel ; the adjustable pawls C^1 C^{11} on their actuating lever D, and the prolongation *o* on the usual operating pawl C of the pattern wheel ; the said devices or their equivalents being arranged so as to effect the changes as desired in number at any given point of the pattern wheel during its rotation, substantially as set forth and described.

No. 21,098.—Joseph Welsh, of Philadelphia, Pennsylvania.—*Improvement in Looms.*—Patent dated August 3, 1858.—This invention consists in the application of a jointed loom so that it shall be made to operate upon the pattern wheel C, or its equivalent, to reduce its normal capacity, or the number of "shots" which it would otherwise produce or allow, as well as to render the aggregate number of notches divisible.

The inventor says : I do not limit my claim to the described construction, arrangement, or mode of operating the lever L, or its equivalent.

But I *claim* reducing the normal capacity of the pattern wheel or its equivalent, so as to make it perform the functions described, substantially in the manner and for the purpose set forth and described.

No. 21,448.—Edwin M. Scott, of Auburn, New York.—*Improvement in Looms.*—Patent dated September 7, 1858.—This invention provides for the shuttle motion of a loom, and harness motion by the movements of the lay, thus dispensing with the cam shaft and cams and treadles, and simplifying the construction of the loom.

The inventor says : I *claim*, first, operating the shuttle motion by means of the lay, in the manner and for the purpose described.

Second. The combination of the sliding shaft *h*, attached to the lay, the rollers *e e*, or their equivalents, on said shaft, the cam I and its appendages attached to the lay for giving longitudinal motion to the shaft, and the dog *n* attached to the breast beam to operate the cam, the whole applied and operating substantially as described, to actuate the shuttle motion at one side of the loom only at a time by the movement of the lay.

Third. Operating the harness motion by means of the lay in the manner and for the purpose specified.

Fourth. The combination of the swinging frame Q and its dogs *q q*, cams *t t*, and turning plate w^1 with the lifting rods *o o*, below the headle frames, the dog *v*, and the lay, the whole operating substantially as set forth to cause the headles to be operated alternately or in proper order of succession.

No. 21,793.—Samuel B. Chaffee, of Providence, Rhode Island, for Himself and as administrator of the estate of Samuel M. Chaffee, deceased, late of said Providence.—*Improvement in Looms for Weaving Hair-Cloth.*—Patent dated October 12, 1858.—The operation of this loom is as follows : As the main shaft B revolves, the lathe is caused to beat up and be thrown back by means of the rods D D^1, connected as shown in the engravings. At the same time the shaft H is revolved

by means of cams I I^1, rods K K^1, lever M, rod N, and jack staff O, gives the required motions to the shuttle. The nippers, which form the point of the shuttle, open as they approach the hair cylinder by the pressure of the roller N, and they close when the lathe has beat up by the relief of the pressure. When thus closed they are drawn back, carrying with them the hair for the filling. When sufficiently far back, they are opened to release the hair by the knee *e*, which may be placed at any point required by the width of the cloth.

The inventor says: I *claim*, first, forming the selvage of hair cloth by means of a set of heddles operating independently of the heddles used in forming the rest of the cloth, substantially as described and shown.

Second. The method described of operating the jack staff by the combination of the cams I I^1, rods K K^1, lever M, and rod N, as specified.

No. 21,312.—James Beck, of New York, New York.—*Improvement in Looms for Weaving Skirt Fringe.*—Patent dated August 31, 1858.—This invention consists in cutting the threads forming the skirt fringe on the said rod by combining shears with the said rod, by the operation of which the skirt fringe will be cut against the edge of the said rod as the fabric is moved along during the progress of the weaving operation.

Claim.—The employment of shears in combination with the rod around which the fringe threads are carried, substantially as described, for the purpose of cutting the said threads on the rod, as set forth.

No. 22,042.—Samuel Walker, of Roxbury, Massachusetts.—*Improvement in Fringe Looms.*—Patent dated November 9, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, riveting the thread carriers to a reciprocating frame S moving with the lathe, as set forth for the purpose specified.

Second. I claim the guard plates *i* attached to the knife, and operating in the manner substantially as set forth.

Third. I claim depressing each loop of fringe as it is formed by means of the fingers *i*, or their substantial equivalents, for the purpose of preventing them from being entangled and twisted up with the succeeding loops, as set forth.

Fourth. I also claim twisting the weft thread immediately before the loops of fringe are formed by pivoting its spool upon a revolving carriage P^1, as set forth.

No. 19,719.—Rufus J. Stafford, of Smithfield, Connecticut.—*Improvement in Stop Motion for Hair-Cloth Looms.*—Patent dated March 23, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I wish it to be understood that I do not limit myself to the special construction or arrangement of parts as described.

But I *claim* all merely formal variations performing the same mode of operation by equivalent means.

What I claim is the mode of operation, substantially as specified,

by means of which, in case the hook, nippers, or other instrument used to insert the weft of the cloth, fails to seize and draw in any one hair or other material intended, a disconnexion is in consequence effected between the gear that controls the action of the several sets of heddles, and the source of motion before the relative positions of the several sets of heddles to each other are shifted, and a new set opened, while the other parts of the loom are permitted to continue in operation, substantially as specified.

And I also claim the mode of operation, substantially as specified, by means of which the "signal messenger" (No. 6) during the backward beat of the lay is returned to such a position, and whenever the hair or other material is inserted between the threads of the warp, where it belongs, the gear which controls the action of the several sets of heddles is again put in motion, as set forth.

I also claim the "signal messenger," (No. 6,) constructed, applied, and operated in the manner and for the purpose substantially as described.

No. 19,428.—Zebulon Lyford, of Lowell, Massachusetts.—*Improvement in Pickers for Looms.*—Patent dated February 23, 1858.—This invention consists in firmly securing all the outer surface of the material of the picker to prevent its wear and destruction, and in securing the picker cylinder or retainer for the picker material permanently to the picker staff by screws or otherwise.

The inventor says: I *claim* retaining or confining the picker material C by means of the curb B, or its equivalent, to prevent wear and destruction by the picks or blows of the shuttle, substantially in the manner and for the purposes fully set forth.

No. 22,114.—Samuel Estes, of Newburyport, Massachusetts.—*Improvement in Picker Staffs for Looms.*—Patent dated November 23, 1858.—By means of this invention that part of the picker staff which strikes the end of the shuttle and drives the shuttle over the race beam is made to travel in a straight line. In this respect it performs a function common to that of many other picker motions, or other operative mechanism.

Claim.—The improved arrangement of the picker staff E with the guide D, with respect to the outer end of the passage *a*, the same being substantially as shown and described.

No. 22,065.—John Crawshaw, of Rochester, New York.—*Improvement in Power Looms.*—Patent dated November 16, 1858.—This invention consists in certain means of controlling the take-up motion of a power loom, whereby its operation is rendered perfectly uniform; and also in certain means of governing the let-off motion, whereby the amount of let-off is caused to be always in proportion to the amount of the take-up.

The inventor says: I do not claim operating the take-up motion by means of a pawl attached to a lever operated upon by a stud or roller attached to the lay; nor do I claim reducing the friction on the yarn

beam, as the quantity of yarn upon it is reduced by the use of weights travelling along levers connected with the friction straps.

But I *claim*, first, the lever *i j k*, applied in combination with the cloth roll and with the spring *h* of the take-up lever, to operate substantially as described for the purpose set forth.

Second. The rock beam I, its arm *u*, and pawl *v*, applied in combination with the ratchet wheel *t*, screw *r*, and lever or levers *q q*, and weight or weights *s*, substantially as described to move said weights toward the fulcra of the friction strap lever *p p*, as the quantity of yarn on the yarn beam is reduced.

No. 19,073.—Stephen O. Colvin, of Coventry, Rhode Island.—*Improvement of the Let-off Motion in Power Looms.*—Patent dated January 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I disclaim the let-off motion of the power loom of Jonathan Knowles, patented April 30, 1850.

I *claim* the roll F, or its equivalent, the springs *a a*, and the clever G, combined and operating substantially as described, to turn the ratchet wheel I, or its equivalent, that moves the yarn beam to let off the yarn only as required by the tension of the cloth and the warp yarn.

No. 19,664.—Newell Wyllys, of South Glastonbury, Connecticut, assignor to Himself and Charles Collins, of Hartford, Connecticut.—*Improvement in Let-off Motion for Power Looms.*—Patent dated March 16, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim*, first, the employment of a movable cap C, or its equivalent, as the bearing surface for the cloth on the breast beam of the loom, for the purpose of controlling the letting off the warp yarn from the yarn beam, by the pressure of the cloth on the breast beam, substantially as described.

Second, in combination with the movable cap C of the breast beam, or its equivalent, and a friction wheel and friction band applied to the yarn beam, I claim the train of mechanism described, through which the said movable cap, or its equivalent, is operated to control the tension of the friction band, for the purpose of controlling the tension of the warp yarn.

No. 19,698.—William J. Hortsmann, of Philadelphia, Pennsylvania.—*Improvement in Ribbon Looms.*—Patent dated March 23, 1858.—A B C D represents the frame of the loom, E F the lay suspended, G is the shuttle, H I and H^1 I^1 represent the warp threads. The filling thread is carried by the shuttle. P is the breast beam roller over which the fringe passes. K L M N N^1 is a bent piece of iron about $\frac{1}{4}$ inch square. It is hinged at K so as to permit its rise and fall with the portions of the warp.

Claim.—The bent rod K L M N N^1 passing between the two headings of the trimmings or fringes and forming a back or edge over which the filling is worked, substantially as described.

No. 22,420.—A. F. Gibboney, of Union Township, County of Mifflin, Pennsylvania.—*Improvement in Shuttle Boxes for Looms.*—Patent dated December 28, 1858.—The nature of this invention consists in lengthening the fly A the full length of the shuttle box B, hinging at the fulcrum C, and attaching to the inner end of the fly A a half swell D, to be properly adjusted by the set screw E.

Claim.—The half swell D on the end of the fly A to be operated on by the picker F, as set forth.

No. 21,515.—Robert Pilson, of Laurel, Maryland.—*Improvement in Temples for Looms.*—Patent dated September 14, 1858.—The nature of this invention consists in dispensing with the usual roller case or box, and instead thereof employing an adjustable extension connecting suspension bar, on each end of which is an independent tubular sheath or receptacle for holding the pin roller, all of which devices produce what may be termed a double acting compensating spring temple, which has a free vibration to and fro, horizontally, as well as a yielding up and down motion simultaneously.

Claim.—The construction of temples for looms, wherein is employed an adjustable extension compound connecting bar or rod composed of the spindle bars or sections *m* 2 *m* 2 *m n* and the splice lengths *o o o o*, the detachable independent tubular sheaths P P *q r s*, Fig. 3, the sliding yielding brackets or bearings I I I J J J, spring holders *b b*, and springs *e e e*, the whole operated as shown, and whereby a double yielding action of the temples is brought about, and for the purposes substantially as set forth and described.

No. 19,270.—Elisha Waters, of Troy, New York.—*Improvement in Manufacturing Angular Paper Boxes.*—Patent dated February 2, 1858.—The nature of this improvement will be understood by reference to the claim and engraving.

Claim.—The construction of angular boxes of paper board by cutting the board into strips for the sides and pieces, for the tops and bottoms, forming the upright angles one by one, by pressing the strips between angular dies without cutting, creasing, or scoring the board, and finally cementing the parts together, substantially as set forth, thus producing by the use of only a single set of the dies, and with the least waste of the paper board, any required number of different sizes of many sided boxes, with smooth, solid, upright corners, as specified.

No. 19,045.—Stephen Rossman, of Stuyvesant, New York.—*Improvement in Machinery for Manufacturing Paper.*—Patent dated January 5, 1858.—The nature of this invention is shown by the claim and engravings.

I am aware that the use of guide rollers in various relations to the main cylinders is common in paper machinery. Examples are seen in the patents of G. W. Turner, January 27, 1852, and D. G. Jones, December 11, 1855. I make no claim to anything contained in those devices. But, to the best of my knowledge and belief, it is new, in

the manufacture of paper, to lift the web from the press roll, as I have described.

I *claim* lifting the web of paper from the upper press roll *c*, by means of a lifting roll F, arranged and operating as set forth.

No. 21,004.—JOSEPH C. KNEELAND, of Northampton, Massachusetts.—*Improvement in Machinery for Piling Paper.*—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* a combination composed of the following elements: First, a carrier E made of endless belts and rollers, or their equivalents, and arranged substantially as specified; second, holders or holding mechanism, consisting of a rod or roller G, one or more flexible strips H H or bars I I, or equivalent devices; third, mechanism to keep each roller of the carrier from revolving while such roller is drawing the paper along over the table; fourth, mechanism to cause the roller to revolve and discharge the sheet of paper at the proper time, as specified; fifth, a table L, or its equivalent, to receive the paper from the carrier.

And in combination with the above described laying mechanism or combination of mechanical elements, I claim one or more bars or guards g^1 g^1, arranged substantially as specified, and so as to prevent the sheet of paper while being carried forward from being drawn against the rear edge of the pack on the table, and being torn or injured thereby.

No. 21,768.—JOHN MCMURRAY and ROBERT MCMURRAY, of New York, New York.—*Improvement in Constructing Frames for Wire-Cloth Paper-Making Cylinders.*—Patent dated October 12, 1858.—The object of this invention is to obtain a very rigid frame, one that will retain its form so as to insure a perfectly cylindrical wire-cloth surface. It is designed to be used in paper-machines, and in other cases where wire-cloth cylinders are employed, and where it is necessary to have the wire-cloth retained in a perfectly cylindrical form, in order to perform perfectly the desired work.

The inventors say: We are aware that a wire *j* has been wound spirally around longitudinal bars in order to form a cylindrical surface or bed to a frame to receive the wire-cloth, and we do not claim separately said wire.

But we *claim* the spiral wire or rod B and longitudinal rods *e*, connected to suitable heads A, provided with journals c^1, in connexion with the spiral wire *j*, the whole being arranged substantially as and for the purpose set forth.

No. 21,008.—THOMAS LINDSAY, of Westville, Connecticut, and WILLIAM GEDDES, of Seymour, Connecticut.—*Improvement in Paper-Making Machines.*—Patent dated July 27, 1858.—This invention consists in having the "lip" or basin J which conducts the pulp from the vat to the endless wire apron B constructed of two parts, so arranged that one part may slide over the other, and having said parts connected with the "deckles" C C, which, as well as the deckle-

straps, are by a novel mechanism rendered susceptible of lateral adjustment.

The inventors say: We do not claim the gauge K, nor do we claim, separately, the adjustable deckles C C, for they have been previously used.

But we *claim* the expanding lip or basin J, in combination with the adjustable deckles C C and straps D, the above parts being arranged to operate as and for the purpose set forth.

No. 20,355.—Henry Lowe, of Baltimore, Maryland.—*Improvement in Preparing Paper Pulp from Reeds.*—Patent dated May 25, 1858.—The claim describes the nature of this invention.

Claim.—The described process of making paper pulp from reeds by first disintegrating the reeds by boiling in a solution of caustic soda, accompanied by agitation, and then reducing them directly to pulp without reducing to half stuff by the machine technically called the old rag engine.

No. 22,401.—Charles Marzoni, of New York, New York, assignor to J. Gandolfo, of said New York.—*Improvement in the Manufacture of Paper Pulp from Wood.*—Patent dated December 21, 1858.—The nature of this invention consists in the abrasion or tearing of the woody fibre from the surface of the wood, in combination with the use of steam and of hot water during the process of converting the wood into minute particles adapted to its direct transformation into a suitable pulp for the manufacture of paper.

The inventor says: First, I *claim* the use and application of the peculiar stone called "adamantine," described, when used as a means of tearing the woody fibre into a state suitable for pulp for paper, as described, by rotation or any other substantially similar manner.

Second. I do not claim steaming the wood, nor the use merely of hot water.

But I claim the combining the use of the hot water at the boiling point, or 210° Fahrenheit, with the stone in rotation while acting upon the wood simultaneously and continuously, so as that the hot water and flakes or particles of woody fibre immediately become united into pulp.

Third. I claim the apparatus consisting of the cover or box E, the boxed openings therein 1 2 3 4, and arms, rods, and weights 7 8 9, by which the blocks of wood are fed and held to the surface of the stone.

No. 20,277.—Joseph Jordan, Jr., of East Hartford, Connecticut, and Thomas Eustice, of Hartford, Connecticut.—*Improvement in Machines for Grinding and Sizing Paper Pulp.*—Patent dated May 18, 1858.—The claim and engravings will explain the nature of this invention.

The inventors say: We *claim*, as our improved machine for the manufacture and sizing of pulp, that it is constructed of a single conical grinder and outer shell, and with pipes for the introduction of the rags and the size, and the eduction of both arranged with

reference to the axis and ends of the grinder, substantially in manner, and so as to enable the grinder to operate to reduce the rags to pulp and mix the sizing therewith, as explained.

No. 20,294.—Martin Nixon, of Philadelphia, Pennsylvania.—*Improvement in the Preparation of Fibre for Paper Pulp.*—Patent dated May 18, 1858.—The bottom angle of the tub beneath the floor *b* is occupied by a steam pipe *c*, perforated at intervals of about two feet with apertures about one-eighth of an inch in diameter, to permit the escape of jets of steam toward the centre of the tub; *d* is a perforated cover which rests on the mass of straw; *e* is a pipe extending axially from beneath the floor *b* to a short distance above the cover *d*, where it may be surmounted with an inverted bowl *f*, or with a centrifugal spreader or vase *g*; *i* is a pipe discharging a current of steam into the mouth of the axial pipe *e*, which serves to impel a portion of the alkaline solution upward through said pipe, and deliver it, in a heated state, in a continuous spreading shower upon the top of the straw, from whence it percolates downward through the mass of straw. At the same time, the steam which escapes into the space beneath the floor *b* rises through the straw.

The inventor says: I am aware that a process has existed whereby the alkaline solution is, by the agency of steam, heated in a separate vessel and delivered on top of the straw in intermittent showers. This I do not claim.

Neither do I claim any process in which cutting of the straw is a pre-requisite.

But I *claim*, first, the described manner of applying the steam, whereby the solution is automatically and continuously delivered on top of the straw, as set forth.

Second. The process of boiling whole straw by the combined action of an upward current of steam and a downward current of alkaline solution, permeating the mass, and acting upon it in conjunction, substantially in the manner and for the purpose explained.

No. 21,161.—Henry Woelter, of Heidenheim, Wurtemberg, Germany.—*Improvement in Reducing Wood Fibres to Paper Pulp.*—Patent dated August 10, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I make no claim in this application as to the originality of the invention of using wood pulp for paper-making, although it might be shown that this even emanated from me; nor do I claim broadly the employment of mechanical agents in combination with water or other suitable liquids, for the purpose of separating and obtaining the fibres of wood.

I also disclaim the various parts and mechanical devices constituting my machine when separately considered, and when not combined as set forth.

But I *claim*, first, the particular arrangement, construction, and combination of the machinery, or the mechanical expedients employed, as herein specified, for reducing blocks of wood, or producing wood pulp, by feeding them up automatically to a rotating grind or millstone,

in connexion with the peculiar manner of applping or locating said blocks upon the circumference of the stone, or on a portion of its circumference, by holding them behind each other in a position and direction essentially the same as described and set forth.

Second. The employment and the combination of a series of perforated and rotating cylinders with the reducing expedient, when contracted and connected between themselves, in the manner herein specified, by surrounding troughs and communicating channels or reservoirs, all made to operate as set forth, and for the purpose of assorting the fibres when separated from the wood in the modes described, rendering the pulp fit to be formed into paper of different qualities.

No. 20,884.—Henry Lowe, of Baltimore, Maryland.—*Improvement in Paper Stock from Reeds.*—Patent dated July 13, 1858.—This invention consists of paper stock made from reeds, (*Arundinaria Macrosperma, Michaux,*) the same being intended as a substitute for rags, ropes, and other fibrous material.

Claim.—The prepared reed fibre, or new article of manufacture above described, as a substitute for rags, ropes, and other fibrous materials, for the manufacture of paper; said reed fibre or paper stock being prepared substantially as set forth.

No. 20,020.—Adolphe Nicólas Matthieu, of Paris, France, assignor to M. J. A. Gaiet, of New York, New York.—*Improvement in the Manufacture of Pasteboard.*—Patented in France, April 13, 1855; Patent dated April 20, 1858.—The claim of the inventor explains the nature of this invention.

The inventor says: I do not claim the employment of leather in making pasteboard, &c., when the same is made to pass through a process of maceration with lime or like substances, or when leather scraps are mixed with resinous or glutinous compounds to cause them to adhere, for all such modes are too expensive for practical use.

But I *claim* manufacturing pasteboard or paper of leather shavings by simply washing and grinding, and mixing the same with vegetable fibres, without the addition of other manipulation or material, by which I make a cheap and merchantable article, when heretofore the process was too expensive for its profitable use.

No. 20,766.—Seth Peck Spencer, of Lancaster, Pennsylvania, assignor to Himself, S. S. Spencer, and Harris Boardman, of said Lancaster.—*Improvement in Drawing Rollers.*—Patent dated June 29, 1858.—This invention consists in a certain construction of the drawing rollers which not only insures a much more perfect rolling, but reduces the cost of the rollers, and also the cost of keeping them in repair.

Claim.—Providing the lower roller with grooves *d*, and the upper roller with leather collar *c*, the said collar *c* being arranged to run into the grooves *d*, substantially as and for the purposes described.

No. 19,623.—Gardner G. Clark, of Providence, Rhode Island.—*Improvement in Calender Rolls.*—Patent dated March 16, 1858.—The

nature of this invention consists in a cylinder roll with a hair surface. The engraving is a cylinder composed of a metallic shaft A A, and two heads B B, between which head is compressed animal hair C which forms a smooth working surface.

Claim.—As a new article of manufacture a calender roll with its working surface formed of animal hair, in the manner and for the purpose specified.

No. 21,238.—Newton Adams, of Lansingburg, New York.—*Improvement in Machinery for Making Rope.*—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the combination of a revolving flyer containing a capstone F and reel G, with the revolving strand flyers B B, revolving around the laying spindle C, substantially for the purposes set forth.

Producing and controlling the rotary motion of the strand spindles or flyers, on their own axis by means of the stationary or moving belt L, acting on pulleys on the said spindles or flyers, the pulley N, worm wheel U, and stationary moving endless screw *z*, the whole being combined to operate substantially as set forth.

No. 19,133.—William Coutie, of Troy, N. Y.—*Improvement in Rope Machines.*—Patent dated January 19, 1858.—This invention consists chiefly in certain arrangements of the well known parts of the "sun and planet" rope machine. One object of these arrangements is to prevent the great development of centrifugal force which is, at high speed, so injurious to the common "sun and planet" rope machine, and thereby to enable the machine to be driven with safety at a higher velocity. Another object is to keep the machine always in balance, and to prevent the injurious action which in the common "sun and planet" machine results in the machine getting out of balance by reason of unequal quantities of strand in the several flyers.

Claim.—Arranging the strand flyers apart from the strand spindles, with their axes in the same planes as the axis of the laying spindle, but intersecting the latter axis at right angles, and with their journals in bearings in the sides of a frame constituting part of the laying spindle, and gearing said flyers with the strand spindles, the planetary arrangement of which is retained by mitre gears, or their equivalents, by which the said flyers are caused to rotate with the laying spindles, so as to cause no twist but what is produced by the planetary strand spindles, in the same manner as in the ordinary "sun and planet" machine, substantially as described.

No. 22,150.—J hn Stewart, of Brooklyn, N. Y., assignor to Charles Wall, of said Brooklyn.—*Improvement in Machines for Tarring Rope-yarn.*—Patent dated November 23, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The employment within the tar vat of one or more series of sheaves or conductors, over or around which the yarns are bent in the manner described, to open their fibres and make them pass and

return in an opposite direction through the tar, for the purpose set forth.

No. 19,015.—David W. Clark, of Bridgeport, Conn.—*Improvement in Sewing-Machines.*—Patent dated January 5, 1858.—The nature of this invention will be understood by an examination of the claim and illustrations.

Claim.—First. Feeding the cloth in sewing-machines by means of a rocker J, arranged and operating substantially as described.

Second. The employment of a hinged slide Q to flatten and hold the loop, substantially as and for the purposes set forth.

No. 19,059.—George Fetter, of Philadelphia, Pa., assignor to Himself and Edward Jones, of said Philadelphia.—*Improvement in Sewing-Machines.*—Patent dated January 5, 1858.—This improvement consists in so attaching a looper to a spindle that the former may be readily adjusted to the latter, the spindle being allowed to turn so as to accommodate itself to the lateral movement of the looper. The looper is so confined with a small finger that it may be readily adapted to the formation of either a double or single chain stitch.

Claim.—First. The combination of the looper R with the spindle N, when the former is rendered adjustable to the latter in the manner described, and when the spindle is allowed to turn so as to accommodate itself to the lateral movement of the looper.

Second. The combination of the finger *p* with the looper *r*, in the manner and for the purpose specified.

No. 19,080.—Alexander Douglass, of New York, N. Y.—*Improvement in Sewing-Machines.*—Patent dated January 12, 1858.—This invention consists in the mode of constructing and combining one part of a cone chuck, a spring, and an adjusting nut, by which the apparatus is rendered convenient to use and less liable to be lost.

The inventor says: I am aware that the application of conical chucks and springs, adjusted by a set screw, have been before used for regulating the tension of the thread in sewing-machines.

I am also aware that the inner chuck has been made movable upon the shaft, and a spring made to press upon that, to control the tension of the thread, instead of upon the part of the chuck upon the outer end of the shaft, which arrangement avoided the necessity of removing the spring each time that a fresh spool was put on, at the expense, however, of a considerable multiplication of parts. I therefore make no claim to the conical chuck, or broadly to its combination with springs and an adjusting screw, for regulating the tension of the thread.

The particular improvement which constitutes my invention, and which I *claim*, is the combination of the part *d* of the chuck, the spring *e*, and the nut *f*, when united as one piece, substantially as described, and for the purposes set forth.

No. 19,072.—David W. Clark, of Bridgeport, Conn.—*Improvement in Sewing-Machines.*—Patent dated January 12, 1858.—The nature and object of this invention is explained by the claim and engravings.

The inventor says: I *claim*, first, feeding the cloth or fabric in sewing-machines by a movement of the table upon which the fabric is sustained, as described.

Second. Placing the loop in the position to receive the needle and thread by a movement of the table, as set forth.

Third. The employment of a wiper J, arranged and operating in combination with the reciprocating table, substantially as shown, for the purpose of placing and holding the loop in position to receive the needle and thread.

No. 19,129.—David W. Clark, of Bridgeport, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated January 19, 1858.—This invention relates or pertains to that class of sewing-machines in which the common "chain stitch" is formed. The claim and engravings give the reader an idea of the nature of the invention.

Claim.—Placing and holding the loop in position to receive the needle by means of a slot *x*, which runs or extends at right angles to the direction of the feed, and is notched at its centre for the passage of the needle, substantially as described.

No. 19,171.—Amos H. Boyd, of Saco, Maine, assignor to Oliver D. Boyd, of Saco, Maine.—*Improvement in Sewing-Machines.*—Patent dated January 19, 1858.—The nature of this improvement consists in introducing distinct lateral and perpendicular movements of the shoe, by which the performance of its exact functions are made certain on every kind of work. The lifting and depressing movement being strictly perpendicular and the feed motion strictly, the operator is enabled to use a flat or level shoe by which the cloth is held firm about the needle a sufficient space to prevent its being strained and forced through the slot in the bed piece by the action of the needle when passing through the cloth.

The inventor says: I *claim* the combination of the lever M, with the shoe and spring 4 for giving the shoe a vertical reciprocating movement.

Also, in combination therewith, the slide T for giving the horizontal reciprocating movement to the shoe, (when the shoe is to be operated in the manner described,) arranged as set forth.

No. 19,141.—Daniel Harris, of Boston, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated January 19, 1858.—This invention consists in an improved manner of regulating the delivery of the thread from the spool to the needle by a tension clamp located at any convenient point. A denotes a screw pin or spindle applied on top of the goose neck. B is a piece of India rubber tubing placed on the spindle and resting upon a base or plate C, or directly upon the goose neck, or plate to which the spindle may be applied. Upon the top of this tubing a washer D, made large enough in diameter to cover the tubing B, is placed.

Claim.—The specific device described for applying tension to the thread during its passage from the bobbin or spool to the needle, that is, causing it to run through the eye of the spindle and between two

disks of parchment, when said disks are placed upon the spindle between two india rubber tubes or cylinders, which are liable to be compressed in the direction of the axis of the spindle to any degree of intensity required, substantially as set forth.

No. 19,155.—JAMES and AMOS W. SANGSTER, of Buffalo, New York — *Improvement in Sewing Machines.*—Patent dated January 19, 1858.—A is the feeding bar which is attached to the frame work by a screw at the point G. Its upper part is so made of elastic metal as to spring backwards. The spring bar F is connected to the feed bar A by a small rod H. I is a nut for fastening said rod. B is a bar which terminates in an elastic foot piece, for the purpose of holding the cloth firmly down to the plate J.

Claim.—The looper A^1, in combination with the plate D and cross piece Z, substantially as described, for the purpose of catching the loop and causing it to be formed round the looper A^1, and held open in the aperture *v* for the reception of the needle.

No. 19,135.—M. DIMOCK and N. RIXFORD, of Mansfield Centre, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated January 19, 1858.—In the under side of the bed plate a groove *e* is cut to receive the slide K, which is accurately guided by the two guide pieces *i* and *n*, or by the sides of the groove *e*. The object of this slide is to carry the looper *r s*, and also the stud *u* and spring *z*, by which the looper is adjusted and vibrated. The looper consists of two separate pieces, namely, the pendulum *r* and the beam *s*, both of which are fastened to plate K by pin *t* in such a manner that their points play freely from right to left and left to right.

The inventors say: We do not claim the looping apparatus patented by W. Lage, June 30, 1857.

But we *claim* the looper *s r*, in combination with the sliding plate K and the loop guide *f o*, when arranged in the manner substantially as set forth, and for the purpose specified.

No. 19,285.—BENJAMIN J. ANGELL, of Attleborough, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated February 9, 1858.—This machine belongs to that class which form a chain stitch with a single thread, by means of the ordinary machine needle combined with a stitch hook which catches and spreads the loop, and carries the same beneath the needle in such a manner that the loop formed by the successive descending stroke of the needle shall pass through the first loop when the stitch hook is withdrawn preparatory to catching up the second loop, being drawn up against the under side of the cloth by the descent of the needle, this forming a stitch.

The inventor says: I am aware that a method of causing the cloth to progress regularly, in feeding, by the joint action of the surfaces between which it is clamped, has been previously patented by Allen B. Wilson. I would not, therefore, be understood as claiming such device for this purpose.

I *claim* the combination of the grooves S S, of the presser with the barbs *t t t t*, of the feed bar, and the surfaces *a a* and *h h*, with

the thumb screw S^1, arranged and operating substantially and for the purpose as set forth.

No. 19,409.—David W. Clarke, of Bridgeport, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated February 23, 1858.—This improvement is intended for the sewing and ornamenting of every description of cloth or other fabric. A A^1 represents the frame of the machine. B is the needle holder. This consists of a flat slide having bevelled edges, and moving up and down between grooves in the frame A^1. C, the needle, is inserted in the lower part of the needle holder B and held there by means of a screw *a*.

The inventor says: I *claim*, first, the employment of the device which feeds the cloth to flatten, hold, and place the loop in proper position for receiving the needle.

Second. Flattening and holding the loop by means of a slide I, substantially as set forth.

No. 19,439.—Abner N. Newton, of Richmond, Indiana.—*Improvement in Sewing-Machines.*—Patent dated February 23, 1858.—C is a lever, by means of which motion is communicated to the needle bar I and also to the lever D. It is pivoted in upright bearings F F, and receives the lever D through a long mortise. The upper end of the lever D is curved in order to adapt itself to the shape of the slot *s*; this slot receives a pin *p* from lever C, and nearly coincides with the motion of pin *p*.

The inventor says: 1st. I *claim* the slotted lever D in combination with mortised lever C, for the purposes set forth.

2d. I claim the combination of levers C D with the needle bar I, in the manner described.

No. 19,535.—Amos W. Sangster, of Buffalo, New York, assignor of Victor M. Rice, James Sangster, and Eliza Remington, of said Buffalo.—*Improvement in Sewing-Machines.*—Patent dated March 2, 1858.—The stitch is taken as follows: The point of the needle, when descending, passes or pushes the plunger C downward, and throws the looper W in the position shown in figures. Just after the needle commences to ascend, the looper is thrown through the loop and into the position shown in figures, and, as the needle continues to ascend, the looper rises with it until its point passes into the slot Z on the under side of the plate U, and assumes the position of fig. 2, when the loop is drawn up and spread, fig. 2, ready for the needle to pass through it and form another stitch.

The inventor says: I do not claim imparting a feeding or forward motion to the cloth or other material while being sewed, by means of a wheel which moves the cloth while revolving, as that has been done before.

But I *claim* the specific mechanism described, consisting of the framework, slide, and toggle joint, designated by the letters H^4 I^2 I I L K M M^1 N O and R, arranged and operating in the manner and for the purpose specified.

No. 19,532.—Joshua Gray, of Medford, Massachusetts, assignor to Himself and George O. Brastow, of Somerville, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated March 2, 1858.—The nature of this invention consists in an improved device for distending the loop to insure the entrance of the needle.

Claim.—The described device for distending the loop, consisting essentially of the sliding bar B and the vibrating arms A and *c*, operating in the manner substantially as set forth.

No. 19,612.—Charles Raymond, of Bristol, Connecticut, assignor to Willford H. Nettleton, of said Bristol.—*Improvement in Sewing-Machines.*—Patent dated March 9, 1858.—The claim and engraving will explain the nature of this invention.

The inventor says: I wish it to be understood that I do not claim fixed and moving looping instruments, over both of which the thread is drawn to spread the loop for the needle to pass through, as this has before been used; but I am not aware of any previous device in which the loop has been taken and directed to a double inclined spreading plate, on the sides of which the loop is spread by the drawing up of the needle thread, thereby insuring the proper entrance of the needle into said loop in its next descent, and using but a very short loop close up to the bed supporting the material being sewed, at the same time the instrument, taking the loop from the needle, performs no duty in spreading the loop, but simply directs it to the stationary double inclined spreader, as specified: therefore—

I *claim*, first, the combination of the thread guide 3^1, clamping surface 3, and the eye 2, on the upper end of the needle bar, when said thread guide is fitted to move with the needle bar, and regulated by the stop *h*, or its equivalent, so as to measure off the amount of thread for each stitch, substantially as specified.

Second. I claim a stationary double inclined spreading plate *n*, over the sides of which the loop is drawn and spread when combined with a looping point, to direct the loop of needle thread to said spreading plate as it draws up, as specified.

No. 19,660.—Joseph E. Hendrick, of Brooklyn, New York, assignor to Himself and William Holmes, of said Brooklyn.—*Improvement in Sewing-Machines.*—Patent dated March 16, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, concentric rotary feeding pad, vibrating upon an axis which yields to pressure in an upward direction, giving a pressure upon the cloth, which is entirely subject to the tension of the spring, or other device, by which the pad is forced down upon it, without being subjected to the action of a toggle joint, as set forth.

Second. The combination of an adjustable spring friction brake with a rotary thread carrier, consisting of the shaft *o*, disk P, and points or pins *n n*, or their equivalents, as set forth.

No. 19,662.—Sidney Parker, of New York, New York, assignor to Himself, Leonard Westbrook, and Hugh Herringshaw.—*Improvement*

in Sewing-Machines.—Patent dated March 16, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim, generally, the communicating of a reciprocal motion to the needle stock for the purpose of sewing by machinery.

Nor do I make claim to the use of a stationary bobbin resting in a loose socket, over which the loop of the upper thread may be carried to form a stitch without a shuttle.

But I *claim* the combination and arrangement of the horizontally reciprocating pronged looper *m n*, and the bobbin, when constructed and operating in the manner substantially as described.

No. 19,665.—Joshua Gray, of Boston, Massachusetts, assignor to Himself and T. B. Mackay, of said Boston.—*Improvement in Sewing-Machines.*—Patent dated March 16, 1858.—To one side of the arm I, which projects down from the plate C, is attached by a screw and nut *l*. A block *p* is attached by a screw and slot at *r* a bent bar or arm L, the end of which is bent over and formed into a pointed hook at S. This bar plays between a block *t* and the plate C, to which the block is attached. The motion is imparted to the hook by the cam block M, which is attached to the lower branch of the arm D, and is formed the advancing edge *x* of the block bearing against the pin *v*, and giving the forward motion to the hook.

The inventor says: I am aware that the angularly slotted plate has been employed in combination with other devices in the patent of Daniel Harris, for operating the feed in sewing-machines. I therefore do not claim this device. My method avoids the necessity of using any intermediate device to operate the feeding foot.

But I *claim*, first, the arrangement of the adjustable slotted plate H in the manner described, and for the purposes specified.

Second. The arrangement and combination of the double cam block M with the looper L, substantially as described and for the purpose specified.

No. 19,684.—Fayette S. Coates, of New York, New York.—*Improvement in Sewing-Machines.*—Patent dated March 23, 1858.—The nature of this improvement will be explained by reference to the claim and engravings.

The inventor says: I am aware that there are many devices for opening or spreading the loop in single thread sewing-machines; therefore I do not claim as new the expansion or spreading the loop in such machines.

But I *claim* the combination of the spring 8 with the feed K and hook I, for the purpose of expanding the loop in sewing machines, as set forth.

No. 19,732.—David W. Clark, of Bridgeport, Connecticut, assignor to H. L. Clark, of Fairfield, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated March 23, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the employment of an adjustable

guide N, constructed and arranged substantially as described, for the purpose of guiding the needle J and its thread, stripping the loop of needle C, and placing the loop of needle J.

Second. The combination of spring O with guide N for holding the needle J within the groove of the guide, substantially as described.

Third. The employment of a swinging plate P, serving as a loop stop for both stitches.

No. 19,723.—James Sangster and Amos W. Sangster, of Buffalo, New York.—*Improvement in Sewing-Machines.*—Patent dated March 23, 1858.—The looper may be operated without the use of the spiral spring P, and without the operation of the needle for that purpose in "its bed place." A is a crank connected to a rod B, which is fastened to the lever C. This lever works on a pivot at D, and the end E operates the loopers.

Claim.—The looper, when the several parts thereof are constructed and arranged to operate, in relation to each other, to the needle and thread, substantially as set forth.

No. 19,793.—O. L. Reynolds, of Dover, New Hampshire.—*Improvement in Sewing-Machines.*—Patent dated March 30, 1858.—This invention relates to that description of sewing machine in which a needle and looper are employed with a single thread to form the chain stitch. It consists principally in a device termed the loop distender *t*, operating in connexion with a looper *l* of suitable construction, for the purpose of distending the loop in a proper manner and to a proper extent, to insure the entrance of the needle.

Claim.—The loop distender *t*, operating by and in combination with the shouldered looper *l*, substantially as and for the purpose set forth.

No. 19,823.—Abraham Bartholf, of New York, New York.—*Improvement in Sewing-Machines.*—Patent dated April 6, 1851.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the construction of the taper portions of the shuttle and the forked portion of the shuttle driver, which acts upon it to drive it back, in a manner substantially as described, so that the said portion of the driver bears upon the top and bottom of the shuttle with a tendency to draw it away from, or prevent it from hugging, the side of the race way.

And I also claim giving the two claws $i\ i^1$, which produce the backward motion of the shuttle, a relative form, substantially as described, by which the shuttle is prevented hugging the bottom of the race-way, as set forth.

No. 19,876.—Elliot Savage, of Berlin, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* forming a chain stitch seam by the looper, constructed and arranged in the manner described, when operated in combination with an eye-pointed needle, so that the looper shall enter the open loop as the needle rises, and, while resting on the

bed plate, securely hold the first loop open in the path of the needle and release the loop when the needle shall have entered, to form a new stitch, as set forth.

I also claim the specific device herein described for regulating the tension of the thread in sewing machines, consisting in a spool-supporting bracket constructed as specified, and arranged in relation to and operating in connexion with a screw-threaded standard in such a manner as to ascend or descend when rotated around and upon said standard, for the purpose of causing the thread to be wound around said screw until the requisite degree of tension is obtained.

No. 19,903.—J. E. Atwood, J. C. Atwood, and O. Atwood, of Mansfield Centre, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated April 13, 1858.—The operation of this machine is as follows: As the needle descends through the cloth its point will not fail to enter the die, and it will force itself through the die without difficulty, as the spring *h* is not necessarily very strong, for the pressure of the looper *j* against the needle H pushes it against the back of the die and towards the part *b*. The principal pressure is towards the back of the die, and though this is met by both parts *b* and *d* of the die, it has little tendency to force the movable part *d* away from *b*. The looper is stationary in the position shown in the figs. 1 and 4 till after the needle has completed its descent and has commenced to rise and leave the thread slack on that side which is exposed at the slit *v* which is formed by the junction of the cavity *c* with the face *g* of the die; but as soon as the needle has arisen a little way the looper begins to move on the pin *m* and crosses the slit *v*, thus passing between the needle and the slack thread.

The inventors say: We do not claim the use of a die to guide the needle and hold it steady against the action of the looper.

But we *claim* the arrangement of the needle die, the looper, and the stationary finger in such relation to each other as herein described for the purpose of extending the loops in a position for the needle to enter them without failure.

No. 19,979.—Charles Frederick Bosworth, of Petersham, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated April 20, 1858.—During the vibration of the lever or rocker *d*, the feed hand *g* is caused to project slightly above the surface of the sewing table, when it will exert a gentle pressure against and slightly lift the yielding pressure pad, the slot through which the feeder passes being arranged immediately underneath the pressure pad, and the cloth to be sewed is introduced between the pressure pad and the table, so as to cover the slot, as in other sewing machines where the feed passes through the table and is alternately worked upon by the feeder for the purpose of being shoved along the proper distance after each stitch.

The inventor says: I *claim* the jointed rocking feed hand constructed and arranged as described, so as to play freely between and upon two fulcra when operating from beneath the sewing table, in

combination with the pressure pad above said table, in the manner and for the purpose specified.

I also claim regulating the angle of vibration of the feed hand constructed, arranged, and operating as herein described, by means of two stops, one of which is so adjustable as to allow the fulcrum upon which the said feed hand moves to be raised or lowered, thereby diminishing or increasing the feed at pleasure, substantially as set forth.

No. 20,175.—E. Harry Smith, of New York, New York.—*Improvement in Sewing-Machines.*—Patent dated May 4, 1858.—The nature of this invention consists in arranging cranks and connexions therefrom to the needle and shuttle in such a manner that the shuttle is caused to move through the loop with accelerated velocity while the needle is retarded, and *vice versa.*

Claim.—Arranging the cranks and connexions to the needle and shuttle in substantially the manner set forth, whereby the differential movements are imparted to the needle and shuttle in the alternating manner described.

No. 20,471.—Charles A. Shaw and James Clark, of Biddeford, Maine, and David T. Giveen, of Saco, Maine, assignors to Charles A. Shaw and James Clark, aforesaid.—*Improvement in Sewing-Machines.*—Patent dated June 1, 1858.—The looper 2, by being mounted in rests and made to pass through the arc of a circle, at some distance from the screw 4, as the centre of motion, it is enabled by this and its rotary movements, to pass the needle E without coming in contact with it, and also to tighten and securely fasten the stitch, while at the same time the thread is partly drawn from the spool for the next stitch. When the needle bar *d* is elevated the rod *j* is also raised from the cloth, taking up the toe of the pad *i* by means of the bar *u*, and releasing the work.

The inventors say: We do not claim the wheel 21, cam 14, lever 13, slide 1, spring 20, slot *o*, needle *e*, or spool 19, or dog 6, as the same are in common use and not patentable.

We also disclaim the use of two threads and the stitch formed by their combination, in the manner described.

Also all and any part or parts of the mechanisms described when those parts are in and of themselves separately considered, which are not of our invention.

But we *claim* the combination of the looping mechanism described, whereby the forward and backward, lateral and reciprocating rotary movements are given to the looper for the purpose described and specified.

No. 20,413.—Martial Dimock, of Mansfield, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated June 1, 1858.—The grippers *a* consist of a couple of bows of spring steel attached to a stock or bar a^1, which is so set under the bed of the machine as to receive action to give the necessary reciprocations by a cam *b* on the main shaft.

Claim.—The gripping apparatus, operating substantially as described, in combination with the needle and the thread, for the purpose of drawing the loop into the path of the looper, as set forth.

No. 20,481.—David W. Clark, of Bridgeport, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated June 8, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—Regulating the extent of the feed by expanding or contracting the rear end of the lever E, substantially as described.

No. 20,531.—Amos W. Sangster, of Buffalo, New York, assignor to V. M. Rice, Joel Thayer, James Sangster, and Eliza Remington, of said Buffalo.—*Improvement in Sewing-Machines.*—Patent dated June 8, 1858.—In figure 2, R is the shuttle with the hook 7 fastened to it. S is a side view of the case or shuttle holder. It is attached to the shuttle carrier or arm U by the screw G^5. In figure 3, P is a brace or cross piece between the rods V^5 and V^6. The pin passes through the shuttle carrier U into the opposite part of the cross piece; it is used for a fulcrum or axle, on which the arm U vibrates.

The inventor says: I do not claim the hook detached from the shuttle, because I believe this has been made before; nor do I claim to have conceived the idea of making the rough or serrated foot piece, because serrated foot pieces are now in common use.

But I *claim*, first, the spring thread carrier K, in combination with the stationary arm L and feeding mechanism operating together in the manner and for the purpose specified.

Second. The combination of the shuttle R and hook 7 fastened together, or their equivalents, operating substantially in the manner and for the purpose described.

Third. The shuttle carrier U, the case S, and the cross piece P, when operating together substantially in the manner and for the purpose described.

No. 20,557.—Abial C. Herron, of Remsen, New York —*Improvement in Sewing-Machines.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* the arrangement of the mechanism by which the feeding surfaces upon both sides of the cloth are moved as stated, and by which the motions produced are combined and applied at the same time to the feeding surfaces upon both sides of the cloth, viz: the arrangement of the rocker shafts above and below the table, with the connecting and intermittent pressure mechanism, or its equivalent, whereby I am enabled to feed the article to be sewed between two smooth surfaces, both having a positive, uniform, independent, and intermitting motion, substantially as above described.

I also claim the arrangement of the mechanism, or its equivalent, for interweaving two threads upon the upper surface of the cloth, substantially as described.

No. 20,686.—ALBERT F. JOHNSON, of Boston, Massachusetts, assignor to Himself and FRANCIS F. EMERY, of said Boston.—*Improvement in Sewing-Machines.*—Patent dated June 22, 1858.—The cam E is formed with a hook 1 on its periphery; a deep groove or slot 2, into which the needle descends after it has passed through the cloth; a shallow groove 3, which runs out on the outer face of the cam, forming a lip 4, which catches the loop of the thread, and holds it distended until the hook has caught another loop and drawn it through this one.

The inventor says: I *claim* taking the loop from the needle by a revolving hook, operating in the manner substantially as set forth.

I also claim, in combination with the revolving hook 1, the groove 3, and the lip 4, or its substantial equivalent, for holding the loop distended, in the manner substantially as described.

No. 20,684.—HEMAN S. SNOW, of Meriden, Connecticut, assignor to Himself and GAMALIEL F. SNOW, of said Meriden.—*Improvement in Sewing Machinery.*—Patent dated June 22, 1858.—The feeding apparatus consists of a jointed lever O united to the vibrating arm at P. Resting on the cloth is a pad, which is held down by a spring Q. Underneath this lever is fastened a lifting feeder R, which is brought above the spring pad, and rests upon it by means of its shape, which constitutes a spring. The lever forming the pad has a lever fastened to it at S, the short arm of which passes under the lifting feeder, and the long arm T is pushed down by the needle carrier I in its descent.

The inventor says: I do not claim as new imparting motion to the looper by means of the needle, nor do I claim the moving of the feeder by means of the carrier, as both have been used before.

But I *claim* the combination of the lifting feeder R with lever T, or its equivalent, for lifting the feeder from the cloth by the descent of the needle carrier, the same being arranged and operated substantially as described.

No. 20,688.—WILLIAM T. BARNES, of Buffalo, New York.—*Improvement in Sewing-Machines.*—Patent dated June 29, 1858.—A full description of this invention would require too much space to be given here. When the needle in its descent hits the upper end of the rod V, it forces the looper down the upper end of the looper, the strip T passing across the line of motion of the needle and passing close by the needle, revolving on the principle of a screw, the rod V moving perpendicularly to the plate G.

The inventor says: I do not wish to be understood as claiming any particular mode of operating my improvements in sewing machines, or any precise shape of parts, as these may be varied without changing the principle of my invention.

I disclaim the patent of T. J. W. Robertson, dated May 22, 1855, and the patent of S. S. Turner, dated August 22, 1854.

But I *claim* the looper strip or point T when secured to the revolving rod or piston V and arranged and operating in combination with the step or looping aperture G^{11}, spring N, and cylinder P, in the manner and for the purpose specified.

Second. I claim the cloth-guiding apparatus F F a a^2, and t and t^1, as constructed, arranged and operating in combination with the feeding device, for the purpose specified.

No. 20,763 —Wesley Miller, of Cambridge, New York, assignor to Himself and William P. Prescott, of New York, New York.—*Improvement in Sewing-Machines.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim a looper moving in the arc of a circle, as that has before been used. Neither do I claim moving such looper by a disconnected lever.

But I *claim* the hooked heel piece 12 and straight side 13, on the looper stock g, in combination with the finger h, having a reciprocating motion on the slide f, whereby the necessary motions for taking a loop, pausing during the ascent and commencement of the descent of the needle thread, are given from the continuously reciprocating finger h, without the use of springs, as described and shown.

No. 20,761.—Thomas A. Dugdale, of Richmond, Indiana, assignor to Himself and John A. Burbank, of said Richmond.—*Improvement in Sewing-Machines.*—Patent dated June 29, 1858.—By moving the cylindrical bar F up and down motion is imparted to lever G, and from that to the needle bar H; motion is also imparted to lever I, lever L, and the eccentric M and feed hand m, by means of the arrangement of slot f, and the circle at the end of lever I and stud i playing horizontally on upright bar P, by means of slot f.

The inventor says: I do not claim giving motion to the shuttle and feeding device by means of the vibrating motion of the needle arm. I do not claim the spiral groove, cam, eccentric, or inclined plane, neither separately nor combined, as they have before been used.

But I *claim* the construction of lever I, with its circle at the end, through which upright F works in combination with stud i and slot f and eccentric M and feed hand m, the whole being constructed, arranged, and operated substantially as described and for the purposes set forth.

No. 20,699.—Samuel Comfort, jr., of Morrisville, Pennsylvania.—*Improvement in Sewing-Machine.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim broadly the passing of the loop of the needle thread over a shuttle by a lateral movement of the needle, or the imparting of a feed motion to a fabric by a similar motion of the needle, or the exclusive use of a discoidal shuttle, in which the spool is central with the case, as the devices for accomplishing these objects are set forth in patents already granted.

But I *claim*, first, the rocking frame G as operated by the crank F, and constructed substantially as described, with its concave shuttle race in combination with the stationary shuttle.

Second. Imparting to the needle an upward and downward combined with a lateral vibrating movement, by means of the rocking

frame G and levers H and J, as operated by the crank F, substantially in the manner set forth.

Third. The vibrating concave shuttle race K, with its lips r and r^1, in combination with the discoidal shuttle L and adjustable retaining plate M.

Fourth. Sustaining the needle in the slot v of the shuttle race during the time that the said needle is, by its lateral motion, imparting the feed motion to the fabric.

No. 20,753.—H. B. West and H. F. Willson, of Elyria, Ohio.—*Improvement in Sewing-Machines.*—Patent dated June 29, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The spring-looper bar in combination with the eccentric I, and the oscillating fork J and stationary projection N, against which the outer end of the looper bar strikes, for the purpose of carrying the looper bar back and forth as required, and giving it two intermittents or stop motions, carrying the looper into a position where the needle will pass through it, and allowing the spring again to recoil immediately after the needle has passed through said loop; the whole being constructed in the manner and for the purposes described.

No. 20,739.—E. Harry Smith, of New York, New York.—*Improvement in Sewing-Machine.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Revolving the shuttle by means of a series of drivers 6 on the surface of a disk that is arranged to rotate at an angle to the plane of the shuttle's rotation, by which a continuous motion is given to the shuttle, while the drivers operate in such a manner that the needle and its thread are unobstructed in their action, substantially as specified.

No. 20,742.—John Thomson, of Worcester, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated June 29, 1858.—The inventor says: I do not claim broadly the use of a device separate from the looper for the purpose of spreading the second thread, as such a device has before been proposed. Neither do I claim a double looper to open the loop of needle thread and form a single chain stitch, as such a device has heretofore been used, and may be seen in the patents of William Sage, June 30, 1851, and Rixford & Dimock, January 19, 1858; but neither of these devices are used with or applicable to spreading the second thread to form a loop for the needle, because the device that spreads the said second thread must move between the looper having the eye for the second thread and the under side of the bed of the machine, for if said device moved at the side of the looper the said second thread would draw from its eye down between the two parts, and the spreader become useless. Therefore

I *claim* the spreading finger 8, acting between the bed of the machine and the looper i, that carries the second thread in such a manner that both enter the loop of needle thread, and then the spreader 8 extends

the loop of the second thread as it draws from the eye of the looper to the cloth, substantially as and for the purposes specified.

No. 20,773.—Robert M. Berry, of New York, New York.—*Improvement in Sewing-Machines.*—Patent dated July 6, 1858.—*a* is the vertical slide or lever which operates the needle; *b* is the vertical intermittent feed-slide, which works in the horizontal intermittent slide *c*; *d* is a diagonal slide attached to *a* and as it moves up and down with *a*, it moves *c* back and forth with an intermittent motion; *e* is a spring which presses the feed-slide *b* down on the cloth; *f* is a double trip-lever, and is operated by the trip-spur *g* attached to *b*, and by the trip-slide *h* attached to *a*; *f* is also intermittent in its motion.

Claim.—Lifting the feed-slide *b* from the cloth, as described, by the double trip-lever *f*, the trip-slide *h*, and the trip-spur *g*, or their equivalents, operated and operating substantially in the manner and for the purposes set forth.

No. 20,775.—Lyman R. Blake, of South Abington, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated July 6, 1858.—The nature of this invention consists in arranging the shoe-rest *b* on the end of an arm D to extend from the table or supporting frame of the machine and enter the shoe; also in arranging the looper *d*, as well as a thread passage *e* within such horn, or applying the same to operate in connexion with the arm D.

The inventor says: I *claim* the arrangement of the rest *b* of a sewing mechanism, or combining it with an auxiliary arm D of such form as to be capable of entering a shoe and introducing the rest *b* into the toe, as well as other parts of the interior of the shoe, in order that an outer sole may be stitched or sewed upon the inner sole and upper of a shoe.

I also claim arranging either the thread passage or looper, or both, within or so as to operate with the auxiliary arm, substantially as described.

No. 21,015.—Charles Moore, of Buffalo, New York.—*Improvement in Sewing-Machines.*—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the feed-plate described, nor the combination thereof with either function it performs, when said functions are separately considered; neither do I claim any part of the mechanism, nor any combination thereof by which the feed-plate is operated, or by which either function thereof is produced, when separately considered.

But I *claim* the elastic compression plate B, constructed with an offset or face B^2, which projects through the bed-plate, and performs the combined functions of supporting the cloth equally upon all sides against the puncture of the needle, and of producing an equal pressure upon the cloth upon both sides of the seam or line of stitch when in the act of feeding, substantially as described.

I also claim the self-expanding looping springs Q, arranged and

operating as described, in combination with the slotted hanger U and springs V, for the purposes substantially as set forth.

No. 21,049.—ALBERT H. HOOK, of New York, New York, assignor to the UNION SEWING MACHINE COMPANY, of New York aforesaid.—*Improvement in Sewing-Machines.*—Patent dated July 27, 1858.—These improvements are made upon the single threaded or tambour sewing machine, to which alone they relate, the construction and arrangement of the parts being devised with reference to cheapness and durability.

Claim.—A narrow space between the looper finger *e* and arm *g* in combination with the rough surface on *g*, the whole being constructed and arranged substantially as set forth.

No. 20,994.—CORNELIUS DONOVAN, of Abington, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The application or attachment to the sewing machine of the stop motion described, consisting of the lever *a*, the cogged segment *b*, the rack *c*, the belt guide *d*, the brakes *j j*, the crank *n*, the springs *i i i i*, and the lever *h*, the cam *k*, the pulleys e^1 e^2, and the belt running on them, the pulley e^3, arranged and operating in the manner described.

No. 20,990.—LUMAN CARPENTER, of Oswego, New York.—*Improvement in Sewing-Machines.*—Patent dated July 27, 1858.—This improvement relates to a feeding mechanism, and consists in the arrangement of a tilting dog or cam F at the lower part of the pivoted feeding bar G, and operating in combination with a friction spring H and the needle bar, whereby the feeding pad I I is caused to retract at the commencement of the upward movement of the needle bar, and thus avoid any tendency to deflect the needle by the friction of the pad upon the cloth.

The inventor says: I am aware that the feed in sewing machines has been produced by a projection or fixed cam on the end of the needle bar or feed bar, or both; also that the feeding bar has been pivoted to a tilting lever and operated over an adjustable screw as its fulcrum. Neither of these arrangements do I propose to claim.

But I *claim* the combination of a tilting dog or cam F, with its friction spring H, and pivoted vibrating bar G, when operated by the needle bar for feeding the cloth, in the manner substantially as described.

No. 21,089.—E. HARRY SMITH, of New York, New York.—*Improvement in Sewing Machines.*—Patent dated August 3, 1858.—The nature of this invention consists in a continuously revolving looper *g*, that passes into, through, and out of the loop of needle thread, catching said loop and retaining it in a distended form until the needle in its next descent passes through the loop, and then the looper passes out of said loop, allowing the same to be drawn up by the descent of the needle, and another loop is taken by the point of the looper from the needle as the looper revolves,

The inventor says: I *claim* forming the stitch by means of the detached looper specified, operating in combination with the needle, and passing entirely through the loop, in substantially the manner and for the purposes described.

I claim the spreader 10, on the side of the looper, for the purposes specified.

I also claim the revolving and oscillating lever *h*, when constructed and arranged in the manner described, to drive the looper *g*, substantially as specified.

No. 21,100.—Darius Wheeler and Luman Carpenter, of Oswego, New York.—*Improvement in Sewing-Machines.*—Patent dated August 3, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We are aware of Blodget & Lerow's patent of January 14, 1851, and do not intend to claim anything therein contained, and we are also familiar with the claims of E. Harry Smith, now under examination at the Patent Office, and make no claim to the broad principle claimed by him of a revolving looper, having a continuous rotary movement, and passing entirely through a loop of the needle thread.

But we *claim* the combination of the notched looper B with the needle spring pins J J and cam plate K substantially as described, whereby one end of the looper takes the loop and the other end discharges it upon the needle D, while the looper is moving continuously in a circle.

We also claim the form of the looper substantially as set forth, whereby as the looper progresses through the loop the loop by the combined action of the needle and looper becomes shorter than when first taken, and is removed entirely out of the path of the point of the looper at and after its discharge, so that it cannot be taken again by the looper.

No. 21,129.—James E. A. Gibbs, of Millpoint, Virginia.—*Improvement in Sewing-Machines.*—Patent dated August 10, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim* so constructing and combining or arranging and operating a revolving hook or looper with a reciprocating needle, as that the one loop shall be taken from the needle after the former loop shall have been drawn up, on, along or over the needle during its advance movement, in the manner and for the purpose substantially as described.

I also claim the conical sleeve or its equivalent for holding the spool and for revolving therewith, in combination with the adjustable cones F and G, or their equivalents, for producing the requisite degree of friction upon the conical sleeve spool holder, when constructed and arranged so as to operate substantially in the manner and for the purposes set forth.

No. 21,230.—Jonathan S. Buell and W. T. Barnes, of Buffalo, New York, assignors to J. Forsyth, R. D. Rockwell, V. M. Rice,

and W. T. Barnes, of said Buffalo.—*Improvement in Sewing-Machines.*—Patent dated August 17, 1858.—The object of the spring F is to hold the feeder bar Q in the position gained by the feed motion while the needle is descending and while the stitch is being tightened. While the projection L is descending the inclined plane E, the spring F will prevent the feed bar from changing its position, and consequently the foot piece will remain stationary upon the cloth, until the downward motion of the projection L strikes the spring F and presses it downward and its end further into the recess formed in the feeder bar as seen between the points T and U.

The inventors say: We *claim*, first, the arrangement of the springs E F G J and I, with the feeder bar *q*, and feeder *l*, each operating in the manner and for the purpose specified.

Second. The looping apparatus, composed of the framework Y, the spear S, the hooks t t^1, and the guide W, operating substantially in the manner and for the purposes described.

No. 21,224.—Wm. P. Uhlinger, of Philadelphia, Pennsylvania.—*Improvement in Sewing-Machines.*—Patent dated August 17, 1858.—In order to secure the needle catching the under thread while coming down, the device L is added to the underside of the machine, which is a vibrating finger so attached and operated that its point catches the under thread just before the needle and carries it away from the looper G, so as to allow an increased space for the needle to enter and catch the under thread.

Claim.—The vibrating finger L, in combination with the needle and looper, arranged and operating substantially as described.

No. 21,234.—Timothy D. Jackson, of New York, N. Y., assignor to Joseph W. Bartlett, of said New York.—*Improvement in Sewing Machines.*—Patent dated August 17, 1858.—The nature of this invention consists in the employment of a thread guide so constructed and arranged that it may be operated entirely by the needle and a spring, and, in combination with a hooked needle, insure the taking of every stitch, and thereby produce a simple and effectual tambour stitch sewing machine.

The inventor says: I am aware that thread guides are used in single thread machines to convey the thread across the path of the needle, which receive their movements from mechanism other than the needle, an example of which may be found in the patent of O. L. Reynolds, May 14, 1850; and I therefore disclaim all such.

But I *claim* a swinging thread guide attached to the cloth presser, and operated by and in combination with an oscillating hooked or barbed needle, constructed substantially as described, whereby I am enabled to secure the taking of every stitch and render a single thread machine effectual, as set forth and specified.

No. 21,250.—R. B. Fitts and Milton D. Whipple, of Charlestown, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated August 24, 1858.—This invention has for its object more perfectly to steady and guide the cloth in its passage through the machine, and

to prevent it from moving frivolously as the sewing proceeds; and it consists in the use of an angular guide upon the table immediately beneath the pressure foot, which lies in the direction in which the cloth is fed and causes it to advance in a straight line, except when it is guided or turned by the hand of the operator. The guide, which is called a "keel-guide," from the nature of its operations, is seen in the engravings.

Claim.—First. The keel-guide *a* beneath the pressure foot, operating as set forth, for the purposes specified.

Second. Causing the shank of the needle to play vertically in the guides and connecting the pitman directly thereto, as described.

Third. Securing the needle in place by means of the pin *f*, when its shank is provided with a notch to insure its proper position with respect to the hook G and the table, as set forth.

Fourth. The peculiar arrangement of the bar K and its post *o* with the bent lever *b*, sliding plate *m*, and spring *n*, operating as and for the purposes set forth.

No. 21,299.—Timothy D. Jackson, of New York, New York, assignor to Joseph W. Bartlett, of said New York.—*Improvement in Sewing-Machines.*—Patent dated August 24, 1858.—The nature and object of the first part of this invention consists in the employment and use of a yielding roller, so arranged as to close the barb of the needle during the perforation of the material, and also during the retraction of the needle, to prevent the barb catching in the material.

And the nature of the second part of this invention consists in arranging and combining with a flexible roller a swinging thread-guide, which shall always carry the thread in position for the barbed needle to catch it.

The inventor says: I *claim*, first, the employment of a yielding roller, constructed as described, for the purpose of closing the barb of the needle during its movements, substantially as set forth and specified.

Second. And in combination with a yielding roller the swinging thread-guide, to carry the thread in position for the needle, to insure the stitch, as set forth.

No. 21,258.—Elias Howe, jr., of Brooklyn, New York.—*Improvement in Sewing-Machines.*—Patent dated August 24, 1858.—This invention consists in a method of operating the shuttle so as to cause it to move to and fro by means of a driver applied only to one part of its length. Also in constructing the shuttle, and the mechanism that drives it, in such a manner that they are well adapted to this mode of operation.

Claim.—Imparting a reciprocating movement to the shuttle of a sewing-machine, by the application of a driver to one point only of its length, substantially as set forth, in such a manner that the driver need not be disconnected from the shuttle. Also constructing the shuttle-driver in such a manner that it is guided by a race parallel with the shuttle race, or its equivalent, and it is at the same time supported and prevented from sinking out of its proper position by

pivoting its stock, perpendicularly to the table of the machine, in a socket in the arm which imparts motion to it, substantially as set forth.

No. 21,322.—D. W. Clark, of Bridgeport, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated August 31, 1858.—The requisite intermittent motion of the belt is imparted by means of a pair of pincers or levers Q Q^1, which are pivoted together at *g*. The forward ends of these pincers grasp the belt O and alternately release their grasp. At the moment of grasping, the pincers vibrate upon the standard or pivot R, (which rises from frame A,) and by this vibration the belt is moved, the wheel M also turned, and the cloth consequently fed or carried in direction of arrow 1.

Claim.—Imparting the neccessary intermittent motion to the feed-wheel M, by means of an endless belt O and vibrating pincers Q Q^1, arranged and operating in the manner substantially as described.

No. 21,310.—Solomon Andrews, of Perth Amboy, New Jersey.—*Improvement in Sewing-Machines.*—Patent dated August 31, 1858.—The operation of this machine is as follows: When the wedge lever is moved on its pivot towards the butterfly, the wedge *b* first enters between the staple and the butterfly, on the underside and over the back of the butterfly. This presses down the butterfly, because the staple will not yield. By the time the butterfly is fully pressed down the lever *c* comes in contact with the extreme end of the mortise in the tail of the butterfly, and will pull it in that direction as far as it is moved on. When the motion is changed to the contrary direction, the wedge is first pulled out; the butterfly rises by its spring, or, if the plate be turned over, falls by gravity, or the spring, or both combined, and as soon as this is done the lever comes in contact with the other end of the mortise and pushes back the butterfly to its original position.

The inventor says: I am aware that the square or parallelogram motion has been employed for feeding the cloth in sewing machines, therefore I do not claim this movement.

But I *claim* the combination of the wedge and lever piece fig. 7, and feeding foot fig. 3, constructed and operating in the manner substantially as described for the purpose specified.

No. 21,465.—Sherburne C. Blodgett, of Philadelphia, Pennsylvania, assignor to George B. Sloat & Co., of said Philadelphia.—*Improvement in Sewing Machines.*—Patent dated September 7, 1858.—The nature of this invention consists in an improved mode of operating the hook about the bobbin, viz: with a compound motion produced by a crank and an arm, or by two cranks, whereby the point of the hook is made to travel in an elliptical or circular path without being reversed, or made to point upward or downward during its rotation; also in a peculiar mode of constructing the hook.

The inventor says: I lay no claim to a shuttle, a needle and mechanism for operating them in such manner and while they carry separate threads, as either to cause the shuttle carrying one thread to

pass through a loop of thread formed and held in cloth or other material by the needle, or to cause the loop of the needle thread to be seized by a hook, and cast around the shuttle in such manner as to carry the thread through the loop, as I am aware that such is not new.

Nor do I claim the application of the hook to the bobbin in such manner that such hook shall revolve in a circular path concentric with the axis of the bobbin, and be turned over or reversed in position, so that it shall be caused to point upward and downward while making each entire revolution.

But I *claim* my improved mode of operating the hook about the bobbin, viz: with a compound motion produced by a crank *i*, and an arm *p*, or by two cranks, whereby the point of the hook is made to travel either in an elliptical or a circular path, without being reversed or made to point upward and downward during its rotation. Also, the particular mode above described of constructing the hook, viz: so that not only the heel part thereof shall lap over the edge of the bobbin, but the point of the said hook extend obliquely in manner as described, or toward the needle, and so as to operate therewith as explained, and making the said hook with an auxiliary hook or notch *z*, the same being to operate together as specified.

No. 21,402.—Bryan Atwater, of Berlin, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated September 7, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The improved arrangement of the guide plates J *i*, with respect to one another, the needle *a*, and the bed plate B, viz: so that there may be a space *b* between the bed plate and the upper end or notch of the guide plate J, and the two guide plates be placed so close together as to hold the middle of the bow of the loop in position and bridged across the recess of the plate J, substantially in manner for the reception of the needle by the loop, and to effect advantages as set forth.

No. 21,461.—Jerome B. Woodruff, of Washington, District of Columbia.—*Improvement in Sewing-Machines.*—Patent dated September 7, 1858.—This invention consists in the construction and use of a double corrugated spring to regulate the tension of the needle thread, which is made to pass between the plates of the spring, and in the employment of an extension rod to adapt the machine to tables of varying heights, and also in the means employed for retaining the shuttle in place, and at the same time to render it easily accessible to insert and remove the bobbin.

The inventor says: I *claim*, first, the double corrugated yielding spring, between which the thread is guided, the same being regulated by a thumb-screw, or any equivalent device, to bear upon the thread in the manner described to produce any degree of tension required.

Second. I claim making the bowl or shuttle carrier, and attaching it to the slotted driver, as described, in combination with the circular shuttle race.

Third. I claim the application of extension rods for pitmans to sewing machines, when used in combination with a hinged foot piece

to be placed upon the floor, and the machine upon a table, in the manner and for the purpose specified.

No. 21,466.—Miles L. Clinton, of Ithaca, New York, assignor to H. F. Hibbard, of said Ithaca.—*Improvement in Sewing-Machines.*—Patent dated September 7, 1858.—This improvement consists in the peculiar method of operating the hook (or spring hook) that holds the loop of thread in single thread sewing-machines, and also the device for winding the thread on to the spool.

Claim.—The cams B and C on shaft A, in combination with spring hook D, constructed and operated substantially in the manner and for the purpose described.

No. 21,537.—George W. Hubbard, of Meriden, Connecticut, assignor to Himself, Walter Hubbard, W. L. Bradley, and N. L. Bradley, of said Meriden.—*Improvement in Sewing-Machines.*—Patent dated September 14, 1858.—This invention consists in a looper of novel construction, operated by the "eye pointed" needle, and operating in combination therewith to sew what is known as the chain stitch with a single thread.

The inventor says: I do not claim the operation of the looper by means of the needle, as this was patented by T. J. W. Robertson, May 22, 1855.

But I *claim* the looper composed of the fixed plate *c*, the elastic plate $d\ d^1$, and the hook *i*, applied to be operated by and to operate in combination with the needle, substantially as specified.

No. 21,592.—Jonas Hinkley, of Huron, Ohio, assignor to Himself and F. A. Wildman, of Norwalk, Ohio.—*Improvement in Sewing-Machines.*—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the method of operating the feeding arm or cloth mover by the combined action of the pivoted bow K, pressing lever N, flexing strap O, and vibrating plate D, or its equivalent, as set forth.

Second. Mounting the vibrating plate D, which imparts motion to the loop-forming hook and feeding mechanism, upon the spring arms *n*, arranged at right angles to a longitudinal spring H for balancing said plate in its vibration.

Third. Mounting the spool T upon a spindle having elliptical-shaped springs, which extend into and through the eye of the spool, as and for the purposes specified.

No. 21,722.—Joseph E. Hendrick, of Bristol, Connecticut, assignor to Himself, W. H. Nettleton, and George Stevens, of said Bristol.—*Improvement in Sewing-Machines.*—Patent dated October 5, 1858.—The nature of this invention consists in the application of sewing mechanism to a device similar to shears, whereby the opening and shutting of the shears performs the functions of sewing; thereby a simple, portable, cheap, and efficient machine is constructed that can be used in the hand in a manner similar to shears, and applied to the

work instead of the work being applied to it, or the said shears may be screwed to the table or other convenient place for support, and the cloth presented to the "sewing shears."

Claim.—The shears handles or bowls a^1 b^1, in combination with the upper part or blade a, acting as a needle carrier, and the lower part b, formed as a bed, as specified, whereby the sewing and feeding mechanism is actuated by a motion of the hand similar to that of cutting with shears, as set forth.

No. 21,713.—Joseph White, of Troy, New York.—*Improvement in Sewing-Machines.*—Patent dated October 5, 1858.—This invention relates to the particular operation of the looper for the purpose of catching, spreading, holding, and releasing the loop at proper intervals during the process of sewing, without putting any twist in the thread, thus making a neat and finished seam.

Claim.—Giving the looper its motions for catching, spreading, and holding open the loop, and then delivering it up to the needle, without putting any twist in the thread, by means of a shaft having two motions at the same time, and given to it by mechanism substantially such as described.

No. 21,672.—Daniel Harris, of Boston, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* driving the needle arm and the apparatus for effecting the feed and for forming the loops in sewing-machines by means of a pulley provided with an india rubber ring, or its equivalent, and hung in brackets cast on to the bed plate, substantially as described, in combination with a fly wheel, also hung in brackets, but which are attached to the table; said pulley and fly wheel being arranged in relation to each other, so that they may be readily thrown into or out of working contact, as set forth.

I also claim the peculiar construction of the hollow goose neck, when so shaped as to admit of the insertion of a bent needle arm, and the vibration thereof upon a fulcrum within said goose neck, in the manner and for the purpose specified.

I also claim for feeding the cloth or other substance in sewing machines, the feed hand connected by means of a yielding joint with the slotted plate containing the slide l, and forming therewith a parallelogram opening in combination with a vibratory needle stock having a pin projecting into said slot, so as to operate in the manner and for the purposes described.

No. 21,669.—William O. Grover, of Boston, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated October 5, 1858.—The nature of the first part of this invention consists in combining the needle of a sewing machine with a hollow cylinder, and with a piston or plunger, the one sliding upon the other.

The inventor says: I *claim*, first, the combination of a cylinder and plunger and needle of a sewing-machine, substantially in the manner and for the purpose specified.

Second, I claim a slot, or its equivalent, for the purpose specified, in combination with the guiding mechanism of a sewing-machine needle, substantially as described.

No. 21,670.—William O. Grover, of Boston, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, the combination with a curved needle or hooker-on, or looper, of an irregularly shaped spiral shaft, and a reciprocating driver, both substantially such as before specified, and constituting an apparatus for imparting the required motions and pauses to a crooked needle, substantially in the manner specified.

Second. I claim mounting a driver, combined with and acting upon a spiral shaft, both substantially such as described, with a spring or springs, substantially in the manner and for the purpose specified.

Third. I claim combining such springs with layers of raw hide, leather, or similar material, when acting upon and in combination with a spiral shaft, substantially in the manner and for the purposes specified.

Fourth. I claim an actuating surface, substantially such as is specified, so formed as to surround or embrace an irregular screwed shaft, and at the same time free to slide in a driver, in planes perpendicular, or nearly so, to such a shaft, substantially in the manner and for the purposes specified.

No. 21,671.—William O. Grover, of Boston, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated October 5, 1858.—This invention consists in the construction and combination of parts. The presser foot having a rounded surface to come in contact with the cloth as shown at *a*, making part of or attached to the slide *b*, which is free to play in proper ways or guides in a block *d d* attached to some part of the machine. This slide or rod is furnished at or near its upper end with a bar *f*, either making part of the slide, or secured to it by brazing or otherwise. The precise function of this bar being to rest upon a cam and transmit motion to the slide.

Claim.—The inventor says: I wish it distinctly understood that I am aware of the fact that there are now in common use a variety of devices for giving and permitting the motion of presser feet slides, and that among them is a bent lever attached by a hinge to a slide which is pressed upon by a coiled spring. I therefore claim as my own invention the combination of a spring, a bar attached to or making part of a slide and resting upon a cam, and a cam shaped substantially as specified, when these parts are held in working position and connection by the spring, as there is no attachment between the bar and the cam, all these parts being substantially such as are before described, and acting severally and in combination, substantially in the manner and for the purposes before specified.

No. 21,751.—James E. A. Gibbs, of Mill Point, Virginia.—*Improvement in Sewing-Machines.*—Patent dated October 12, 1858.—The claim and engraving explain the nature of this invention.

Claim.—In combination with an eye-pointed needle vibrating up and down and back and forth in a plane passing through the line of feed, the spring hook J, or a hook constructed so as to yield sidewise or laterally of the path of the needle when actuated by said needle, in the manner and for the purpose of operating substantially as described.

No. 21,800.—WARREN MILLAR, of Chicago, Illinois, assignor to Himself and JOHN NUTT, of said Chicago.—*Improvement in Sewing-Machines.*—Patent dated October 12, 1858.—This invention consists principally in a rotating two-hooked ring, operating to extend the loops in the needle thread, in combination with a reciprocating spool, which supplies the locking thread through said ring and through the loops extended thereon. It also consists in the employment of a loose ring applied within a cavity in the aforesaid rotating two hooked ring, to produce the necessary tension on the locking thread.

The inventor says: I do not claim the combination of the rotating hook to extend the loops in the needle thread, with a reciprocating bobbin to carry the locking thread through the so-extended loops, as that is claimed in the patent of A. B. Wilson, August 12, 1851.

Neither do I claim the driving of the reciprocating spool by means of a groove in a rotating hollow mandrel, into which the said spool passes, and which carries the rotating hook.

Nor do I claim placing the hook which takes the loop from the needle on the side of the ring opposite to that where the thread passes from the bobbin or thread case to the needle loop, when such bobbin or thread case is stationary or revolves with the hook, as such construction and arrangement of these devices are employed in the patent of E. Harry Smith, dated November 10, 1857.

But I *claim*, first, the revolving hooked ring, constructed as described, when arranged and operating in combination with the needle and the reciprocating spool, carrying the locking thread, for the purpose specified.

Second. The loose ring R applied within the rotating two-hooked ring, and operating in combination therewith, substantially as described, to produce a tension on the locking thread.

No. 21,752.—WILLIAM O. GROVER, of Boston, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, driving or speeding up a sewing-machine by means of a convex elastic face on one wheel or pulley acting in combination with and by friction upon a non-elastic concave face on another wheel or pulley combined and acting together, substantially in the manner and for the purposes specified.

Second. I claim supporting and steadying a sewing-machine by the combination of a tube of India rubber, or its equivalent, with an internal pin or projection, the two being fitted and acting substantially in the manner and for the purposes set forth.

No. 21,745.—CHAUNCEY O. CROSBY, of New Haven, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated October 12, 1858.—This invention consists in so constructing the machine, that by the

arrangement and combination of the several devices, the operator is able to imitate, so far as is beneficial, the manipulations of sewing by hand, so far as the thumb and first two fingers of the left hand are concerned in holding the cloth, and those of the right hand in using the needle. And in the method of drawing the main portion of the thread through the cloth, controlling the slack thread, and drawing up the stitch without any strain upon the eye of the needle, or of the thread where it rests in the eye of the needle, or of chafing the thread by drawing it through at an acute angle with the cloth, each of which evils occurs in sewing by hand.

The inventor says: I *claim*, first, the combination of the cloth holder with the needle bar and thimble bar, when constructed and made to operate substantially as described.

Second. I claim the combination of the needle bar and thimble bar with a common needle, when made to operate substantially as described.

Third. I claim the combination of the feeding apparatus with the needle bar for carrying the needle, when made to operate substantially as described.

Fourth. I claim the combination of the needle bar with the hooks and endless tapes, when arranged and made to operate substantially as described.

No. 21,833.—George W. Hubbard, of West Meriden, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated October 19, 1858.—This invention consists in an improved construction of the loopers of sewing-machines, and in the manner of operating the same. The looper consists of a hook so shaped as to engage and spread the loop in a well known manner. It is, however, so constructed as to be capable of being operated by a fixture attached to the needle bar, which fixture being carried up and down with the needle, effects the working at the proper time and in a simple manner.

Claim.—Operating the looper by means of a pin working in conjunction with the needle, in the manner substantially as described.

No. 21,929.—Amos W. Sangster, of Buffalo, New York, assignor to Victor M. Rice, Joel Thayer, James Sangster, and Eliza Remmington, of said Buffalo.—*Improvement in Sewing-Machines.*—Patent dated October 26, 1858 —The nature of this invention consists in providing a revolving cam or wheel in combination with an adjustable foot-piece, or equivalent, between which, and by means of which, the cloth is fed to the machine and the length of the stitch is regulated.

Claim.—The combination of the cam or wheel H, provided with one or more projections on its periphery, with the adjustable foot-piece G, or its equivalent, for feeding the cloth and regulating the length of the stitch in the manner described and without the use of an intermediate feed-piece.

No. 22,050.—Samuel Comfort, jr., of Morrisville, Pennsylvania, assignor to Himself and Francis H. Jackson, of Philadelphia, Pennsylvania.—*Improvement in Sewing-Machines.*—Patent dated November 9, 1858.—This invention relates to improvements in sewing-machines

for which letters patent were granted to the above named inventor on the 29th of June, 1858, and consists in protecting the bent needle and preventing it from springing or breaking as it is in the act of penetrating the fabric, by means of a guard arranged to coincide with and be in juxtaposition to the needle; also in a device connected with the needle-guard, whereby the needle thread is caused to maintain the needle in proximity to the guard and whereby the thread is caused to take its place in the groove in front of the needle, and thus prevent a double loop from being passed round the shuttle.

The inventor says: I *claim* the guard *i* in combination with a bent needle, the inner edge of the said guard being in juxtaposition with the needle and forming the segment of a circle, of which the centre of vibration of the needle arm is the centre for the purpose specified.

I also claim causing the needle thread to maintain the needle in proximity to the guard *i*, and at the same time so guiding the thread to coincide with the groove of the needle by means of the projection 2, arranged on the said guard, substantially as set forth.

No. 22,007.—Otis Avery and Zelotes W. Avery, of Bethany, Pennsylvania.—*Improvement in Sewing-Machines.*—Patent dated November 9, 1858.—This invention relates to that class of sewing machines known as the single thread or "Tambour machine." J is the cloth presser or foot through a slot in which the needle works. This presser holds the material and prevents its being raised by the needle; it is attached to a rod *g* which passes up through the part E of the frame, in suitable bearings therein, and behind this rod there is a spring *i* for throwing it towards the needle bar after it has aided to feed up the cloth for one stitch so as to be ready for the next succeeding stitch.

Immediately behind the hook *a* on the shaft B, there is a cam *h* which rotates in a yoke K that is pivoted to a frame *k*, said yoke is kept against cam *h* by spring L, so that as the cam rotates on its shaft the yoke shall vibrate on its pivoted point *k*.

The inventors say: We *claim* the combination of the rocker or yoke K, pivoted as described, and the presser S, operated as set forth, for the purpose of firmly holding the cloth whilst it is being fed up or moved as represented.

We also claim, in combination with the beam H and its cam *q*, the bar *o* and its cam *r*, when said parts effect the purposes described, and in the manner set forth.

No. 22,045.—Calvin D. Wheeler, of New York, New York.—*Improvement in Sewing-Machines.*—Patent dated November 9, 1858.—This invention consists in interposing between the thread-spool and the place where the thread is used, a sheave whose greater or less freedom of motion on its axis is controlled by an adjustable friction brake, and whose periphery contains a sharp groove in which the thread, which is passed partly around the sheave, jams, so that the sheave is turned by the thread as the latter is drawn to the point where it is used, and the tension or the strain upon the thread depends upon the greater or less resistance of the friction brake,

which, when once adjusted, remains constantly the same whatever quantity of thread be passed through the machine.

Claim.—The combination of a sheave whose groove is sharp or so constructed that the thread may jam therein by a partial passage around the sheave, with an adjustable friction brake to control the movement of the said sheave, substantially as described.

No. 22,148.—James Perry, of New York, New York, assignor to Isaac C. Noe, of said New York.—*Improvement in Sewing-Machines.*—Patent dated November 23, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I wish it to be distinctly understood that I do not limit myself to the precise construction and arrangement of the parts, as these may be variously modified without the principle or mode of operation which I have invented and claim to be new and useful. Nor do I wish to be understood as claiming any particular device simply to catch a loop and to move the same that the needle may enter it.

I *claim* the combination and arrangement of the levers and cams for imparting the three reciprocating movements to the looper, namely, that in the arc of a circle, the lateral and the vertical, in the manner substantially as described for the purposes specified.

Also, the shield i^1 in combination with the looper and needle, arranged and operating in the manner described, for the purpose of presenting the loop to the looper with greater certainty.

No. 22,137.—James H. Spencer and Thomas Lamb, of Philadelphia, Pennsylvania.—*Improvement in Sewing-Machines.*—Patent dated November 23, 1858.—This invention consists in a novel combination of a reciprocating or vibrating shuttle-holder, with permanent and yielding projections, and a spring catch for retaining the shuttle plate and its spool, the whole being arranged in respect to each other and to a lip projecting from the cloth plate. And it further consists in a peculiar arrangement of cams, rods, and arms for feeding the fabric and regulating the feed, and in a combination and arrangement of cylinders and pins for imparting the necessary tension to the fabric, and for regulating the amount of tension.

The inventors say: We *claim*, first. The vibrating and reciprocating carrier *h*, with its permanent projections *k k*, yielding projection *j*, and spring-retaining catch *p*, in combination with the shuttle M, its casing N and spool *n*, when the several parts are constructed substantially as described, and when they are arranged in respect to each other and to the lip *q* as and for the purpose set forth.

Second. We do not claim, broadly, feeding the fabric by the combined vertical and lateral motion of a roughened surface feed bar on the said fabric, as such a device is described in the patent of A. B. Wilson, granted December 19, 1854. But we claim the arrangement of the parts described for feeding the fabric and regulating the amount of the feed; that is to say, the cams F and G, spring-rod P, arms *w* and *v*, the rod *z*, its collar 2 and adjustable nut Q.

Third. The cylinders 3 and 4, with their respective pins, when

arranged in respect to each other to receive the folds of the needle thread, as set forth, so that by turning one or both of the said cylinders the pins may cause more or less of the folds to bear against the surface of the cylinders as set forth.

No. 22,143.—Hiram W. Harkness, of Bristol, Connecticut, assignor to Himself and Wilford H. Nettleton, of said Bristol.—*Improvement in Sewing-Machines.*—Patent dated November 23, 1858.—The claim and engraving explain the nature of this invention.

Claim.—Feeding the cloth to sewing-machines by the combined action of a smooth reciprocating pressure foot and a vertical clamp, acting at the end of said foot, to hold the cloth firmly while being moved, the bend or angle thus formed in the said material enabling the feed to act with but little pressure on the goods from the smooth foot-piece, as specified.

No. 22,179.—Albert H. Hook, of New York, New York.—*Improvement in Sewing-Machines.*—Patent dated November 30, 1858.—This improvement consists in simplifying and arranging the construction of certain parts of machinery necessary to mechanical sewing, by which can be made a compact machine at small cost and retain all the useful features of a single thread sewing-machine, dispensing with threading and other difficulties in its operation usually incident to such devices.

Claim.—The combination of the levers *m n*, arm *k*, spring *o*, and cam *p*, constructed and arranged substantially in the manner and for the purpose set forth.

No. 22,160.—S. S. Burnet and William Broderick, of Chicago, Illinois.—*Improvement in Sewing-Machines.*—Patent dated November 30, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim*, first, the employment of the rocker F in combination with the cranks I J of the driving shaft, and with the needle bar or slide C, in the manner substantially as specified, for giving the required motions to the needle bar or slide to accomplish the formation of the loop, and at the same time allow the shuttle time to pass through the loop before the loop is drawn tight, and thereby accomplish the interlocking of the two threads and the drawing of the stitch tight on the cloth, as set forth.

Second. The employment of an auxiliary adjustable thread guide N in combination with the rocker F and stationary thread guide N^1 N^1, in the manner substantially as hereinafter specified, for the purposes of governing and adjusting the amount of thread for each stitch.

Third. The employment of the segment friction plate N^3, hung on a horizontal axis and constructed and operating as described, with or without index pointer *f*, in combination with the thread guides N^1 N^2, substantially as described, for the purpose of causing greater or less tension upon the upper or needle thread.

Fourth. The employment of a vertical sliding, unyielding pressure bar P^1, formed of two pieces *m n*, which are right and left screw tapped, and coupled together by an adjustable link nut *l* in combination

with a jointed pivoted feeding and holding down pad O *o*, and a vertically and laterally acting cam *s t* of the rocker, in the manner substantially as specified.

No. 22,220.—Charles Raymond, of Brattleborough, Connecticut, assignor to Willford H. Nettleton, of Bristol, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated November 30, 1858.—The nature of this invention consists in a peculiar manner of applying and regulating the feeding rollers that move the cloth, whereby more or less motion is given to the rollers to feed the cloth while the needle is out of it; also in a new construction of looper that forms a double chain stitch, said looper being formed in two pieces, the first of which passes through the loop and spreads the same, and then the second moves up and the needle takes a loop threfrom, and then the two retiring drop the first loop around the second, and so on.

The inventor says: I *claim* the arrangement of the adjustable neck *n*, having a reciprocating and vibrating motion, and operating in combination with the pinion *o* and feeding wheel *q*, to regulate the feed in the manner described.

I also claim the slide *u*, carrying the looper 13 and provided with the slot 16, receiving the pin 15 on the bar *x* that is formed with the carrier 14 for the second thread, whereby the thread carrier 14 is actuated by the reciprocations of the looper 13, substantially in the manner and for the purpose specified.

No. 22,269.—Stephen G. Tyler, of Quincy, Illinois, assignor to Himself, G. J. Savage, and J. W. Barnum, of said Quincy.—*Improvement in Sewing-Machines.*—Patent dated December 7, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Making the bearing surface of a feeding foot or pressure pad of a sewing machine, or their equivalents, with two or more parts or toes, each self-adjusting to varying thicknesses or inequalities of surface, cording, hemming, or sewing plain work, and combining the same with a sewing-machine feeding apparatus, substantially as and for the purposes specified.

No. 22,225.—Robert M. Berry, of New York, New York.—*Improvement in Sewing-Machines.*—Patent dated December 7, 1858.—I is a smooth piece of cork wood made fast to the under surface of *b*, and L is a smooth brass table or plate. J is a nick in which the short end of lever *h* is held, and *k* is a set screw by which the extent of action of *h* is controlled.

Claim.—The combination and arrangement of the feeding foot L, of cork, or its equivalent, with the peculiar feeding mechanism described, or its equivalent, operating in the manner substantially as and for the purpose specified.

No. 22,240.—Samuel F. Pratt, of Roxbury, Massachusetts.—*Improvement in Sewing-Machines.*—Patent dated December 7, 1858.—This machine is intended to accomplish the sewing of cloth or other material, by the interlooping of two threads, one being carried by an

eye-pointed needle, and the other by a thread carrier or adjuster, with which a hook or expansion hook is employed to effect the formation of loops and their passage through those of the needle, the nature of the principal part of the invention consisting in the combination of the thread carrier or adjuster, and the hook, when applied and used with a needle. It also consists in a peculiar thread carrier or a hook or barb, and a slot, or its equivalent, operating in conjunction or combination to effect the proper seizure of the lower thread and its disposal with respect to the loop of the needle, in order that such lower thread may be seized by the mechanism for drawing it through the needle loop.

The inventor says: I *claim* for interlooping two threads in order to sew cloth or other material, by means of an eye-pointed needle, or its equivalent, the combination of a thread carrier or adjuster M, and a hook P, so acting together, and with the eye-pointed needle, or its equivalent, as not only to cause the thread of the carrier to be laid or presented in rear of the needle in a proper manner to be seized by the hook, but to cause the hook to pass through the loop of the needle, seize the thread of the carrier, and next recede, and draw the said thread in the form of a loop through the loop of the needle, and properly present it for the needle to pass through it during its next downward movement after the cloth may have been fed along the length of the stitch.

I also claim the thread carrier M, constructed with the slit *a*, or its equivalent, and barb *b*, operating in the manner described, to present the lower thread to the reciprocating looper hook, which will draw it through the loop formed in the needle thread.

No. 22,264.—John First, of New York, New York, assignor to Himself and James Frost, of said New York.—*Improvement in Sewing-Machines.*—Patent dated December 7, 1858.—The nature of this invention consists in the use of a slotted arm driven by a rod connected to a crank pin and sliding in a swivel guide, the whole combined and serving in the relations to each other for the purpose of giving the requsite irregular motion to the needle bar.

Claim.—The employment of the slotted arm D, the rod and pin E H, and the swiveling guide G, or their respective equivalents, in combination with each other and with the crank E, substantially as described, for the purpose of communicating the requisite irregular motion to the needle bar of a sewing machine, as set forth.

No. 22,255.—John Mackenzie, of Cleveland, Ohio.—*Improvement in Sewing-Machines.*—Patent dated December 7, 1858.—This invention consists in a certain combination and arrangement of mechanical devices to provide for the operation of the feeding-dog, by the elongation of an eccentric-pin which drives the shuttle.

Claim.—Combining the lever-like feed-dog K with the revolving eccentric-pin *e*, which operates the shuttle by means of the vibrating slotted double cam-like plate P, and the two levers L and M, the connecting-rod K, and the springs S S, the whole being arranged and operating as described, to produce the movements of the feed-dog.

No. 22,226.—Hobert H. Bishop, of Bristol, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated December 7, 1858.—This invention relates to a device for sustaining and actuating the needle so that it enters the cloth vertically, and when near its furthest point of insertion moves laterally to feed the cloth, and then draws out straight, and while out returns to its previous position, a regulated distance corresponding to the length of his stitch, whereby the needle feed does not operate except at the strong base of the needle.

Claim.—The plate *k* in slides on the needle-bar *h*, at right angles to it, and carrying the eye-pointed needle, in combination with the bent lever *m* and stops 4 and 5, or their equivalents, for the purposes and substantially as specified.

No. 22,273 —J. E. Atwood, of Mansfield Centre, Connecticut.—*Improvement in Sewing-Machines.*—Patent dated December 14, 1858.—This invention consists in the combination and arrangement of feeding mechanism for moving the cloth, or other material to be sewed, between the other operations of the needle.

A is the plate upon which the material is placed to be sewed, having cast with it the standard B to which is attached the arm C, to which is secured the spring pressure-pad D for confining the material to be sewed to the table or plate A; said arm also carrying the guide E for the vertically-sliding needle-bar N, and containing the bearings for the main shaft F, from which the needle and looper, or shuttle and feeding mechanism, also derive motion.

Claim.—The combination of the vibrating arm H which carries the dog *g*, its attached arm K, the swinging frame I, the independent levers *i j*, the springs *h l*, and the cam J, the whole applied, arranged, and operating substantially as set forth.

No. 22,275.—Amos H. Boyd, of Saco, Maine.—*Improvement in Sewing-Machines.*—Patent dated December 14, 1858.—In using this machine, the wheel D is set in motion and the needle descends, and as it ascends the eccentric-groove *c* is so constructed that the bar B will move, bringing the looper forward so that the projection *d* will catch the thread between it and the point *e* of the looper-bar. By the time the thread is fairly caught on the projection, the eccentric-groove *g* operates upon the bar C, moving it backward; and thus, by means of the ear *i* and pin *o*, the looper-shaft is made to revolve partially, thus holding the loop open until the needle descends. When the needle descends the bar C moves forward, revolving the looper-shaft back again, and almost instantly the bar B moves the looper-bar back so as to disengage it entirely from the thread. As the needle ascends again the looper-bar is made again to move forward, receive the loop, revolve and hold it until the needle descends, then it turns and moves back, and thus each stitch is made.

Claim.—The combination of the looper E, the bars B and C, and cam-wheel D, when constructed, arranged, and operated in the manner substantially as described and for the purpose specified.

No. 20,664.—Francis A. Ross and William H. Marshall, of New York, N. Y.—*Improved Cabinet for Sewing-Machines.*—Patent dated

June 22, 1858.—Upon the top of the cabinet is placed the sewing platform B. It is hinged at the back and has a catch-lock in front. The cap A is for covering the machine. The doors C of the cabinet are hinged upon pivots G.

Claim.—The hinged case B to form a sewing platform, arranged and constructed substantially as described.

No. 20,245.—Lemuel W. Serrell, of Brooklyn, New York, assignor to John Harold, of Hempstead, New York.—*Improvement in Guides for Sewing-Machines.*—Patent dated May 11, 1858.—The object of this invention is to provide means for guiding the cloth to the sewing machine that any character of work can be performed, by a combination or permutation of guides that control the position of the cloth relatively with the needle, and at the same time keep the goods as flat as possible and open to the inspection of the operator, and also turn the hems on the cloth.

The inventor says: I *claim*, first, the detached tongue *g*, around which the edge of the cloth to be hemmed is folded or wrapped to a greater or lesser extent, substantially as and for the purposes specified.

Second. I claim the adjustable hem-spreader K, in combination with the tongue *g*, substantially as specified.

Third. I claim the combination of the separate or detached tongue *g* with the inclined tucker *h*, to pass the edge of the cloth beneath the said tongue *g* between that and the material on the bed to form the hem, substantially as specified.

Fourth. I claim the finger *g* in combination with the tongue *g*, substantially as and for the purposes specified.

Fifth. I claim the gauge *r*, in combination with the hem spreader *k*, and gauge *l*, substantially as and for the purposes specified.

No. 21,355.—Henry B. Odiorne, of Philadelphia, Pennsylvania.—*Improvement in Hemming Guides for Sewing-Machines.*—Patent dated August 31, 1858.—This invention consists in constructing the pressure-pads of sewing-machines with certain recesses formed and arranged as shown, and in combining with the same a curved tongue or projecting curved lip, in order that by the joint action of the said recesses and curved tongue, or their equivalents, the edge of the fabric may be turned over, and the two folds, necessary for producing the required hem, formed as the fabric is moved forward by any of the feeding devices generally used in sewing-machines.

The inventor says: I lay no claim to any device described in the patent of S. P. Chapin, or to that of S. C. Blodgett, granted January 3, 1854.

But I *claim* constructing the pressure-pad of a sewing-machine with recesses, arranged and formed substantially as described, in combination with the curved tongue B, or its equivalent, for the purpose specified.

No. 21,361.—Truman W. Pepper, of New York, New York.—*Improvement in Oiling the Thread for Sewing-Machines.*—Patent dated August 31, 1858.—The nature and object of this invention is to obvi-

ate spattering the oil and consequent damage arising therefrom by mounting to the pressure bar or other part of the machine a vessel filled with oil, and provided with an orifice for holding any porous or absorbing material for the thread to pass over during its passage to the needle, and having a valve to regulate the flow of oil to the absorbing material, so that the operator can saturate the needle thread more or less at option, and thereby accomplish the desired end without the slightest detriment to the goods during the progress of sewing.

The inventor says: I am aware of the patent granted to I. M. Singer, May 30, 1854, wherein he claims oiling the thread with linseed oil mixed with a dryer, which he accomplishes by passing the thread into and out of a cup, said thread being passed over the edges of the cup, and made to pass near the bottom thereof by means of a guiding eye.

I am also aware of the patent granted to Salem Wilder, January 30, 1855, for waxing thread, wherein thread is passed into and out of a cup in a manner identical with Singer, and I therefore claim no part, device, or thing in these patents.

But I *claim* the described improvement in oil vessels for sewing machines, namely, providing the vessel with the regulating plug *a*, neck or spout *b*, and porous material *c*, over which the thread is drawn, arranged, and operating in the manner substantially as described.

No. 20,006.—Phineas J. Steer, of Washington, District of Columbia.—*Improvement in Operating Sewing-Machines.*—Patent dated April 20, 1858.—When the operator is ready to start this machine she will slightly elevate the left knee by raising the heel about half an inch from the floor, or until she feels the left knee touching the pawl H. The pawl will then be in the ratchet, and the machine will be securely locked against a backward motion, but free to move forward. Then, with her right foot upon the treadle, she starts the machine, and it must go forward, which is instantly known by the clicking of the pawl upon the ratchet wheel, when she may drop the knee and keep the machine going by the treadle. As soon as the knee drops the clicking ceases.

The inventor says: I disclaim the employment of a pawl and ratchet for the purpose of revolving a shaft continuously in one direction, as this is not new.

But I *claim* the arrangement of the devices for starting sewing machines always in a right direction, and to prevent backward motion with the knee and foot of the operator, and without using the hand for that purpose, as set forth and described.

No. 21,398.—John T. B. Rogers, of New York, New York, assignor to George B. Sloat, of Philadelphia, Pennsylvania.—*Improvement in Regulating the Tension of the Thread in Sewing-Machines.*—Patent dated August 31, 1858.—This invention consists of two conical surfaces, one of which is concave, and forms a cap to the other, which is convex, and an adjusting screw and spring, the whole being combined

in a manner to produce upon the thread passing between the cones friction, which is sufficiently variable to produce a degree of tension on the thread which can be regulated with extreme delicacy.

The inventor says: I do not claim regulating the tension of the thread by graduated friction thereon, or by causing it to pass over variable angular surfaces.

But I *claim* the combination, substantially as shown and described, of the cone A and conical cap B, for the purposes set forth.

No. 20,409.—James Cottrell, of Studley, England.—*Improvement in Sewing Needles.*—Patent dated June 1, 1858.—The nature of this invention will be explained by reference to the claim and engravings.

Claim.—The sewing needle described as a new article of manufacture, that is to say, giving the space between the cutting edges of the triangular or equivalent formed needle a concave form, substantially in the manner and for the purposes described.

No. 22,140.—Henry Walker, of Alcaster, Warwickshire and Gresham street, London, England.—*Improvement in the Manufacture of Sewing Needles.*—Patented in England May 19, 1858.—Patent dated November 23, 1858.—The nature of this invention consists in forming the dies or bits in such a manner that the cylindrical shape of the needle is nearly or entirely preserved, so that a circular hole is left for the thread to be drawn into.

Claim.—Forming the eyes of the needles in the cylinder of the wire, without flattening the same, by means of the double grooves E, substantially as and for the purposes specified.

No. 19,283.—Harold Kelsea, of North Branch, in Antrim, New Hampshire, assignor to Himself and Henry Dunklee, assignors to D. B. and J. C. Fuller, of New York, New York—*Improvement in Manufacturing Sewing Silk.*—Patent dated February 2, 1858.—This invention consists in an improved manufacture of sewing silk or twist, it being made by interlooping a single strand so as to lay together, and side by side, between each two adjacent interloopings of it, three straight portions of the strand. After this has been done the whole is to be twisted together, so as to form one single line or cord.

The inventor says: I do not claim a manufacture of silk twist as made by laying and twisting together three different strands.

But I *claim* my improved manufacture of silk twist or sewing silk, as made by looping and interlooping a single strand, and subsequently twisting it into one line or cord, as specified.

No. 21,068.—James Eaton, of Townsend Harbor, Massachusetts.—*Improvement in Cop Tubes for Shuttles.*—Patent dated August 3, 1858.—The extremities of the shuttle spindle are furnished with a button, *b*, which serves to hold off the yarn from the spindle and prevent it from wrapping and winding round it as it is drawn off. This button also serves to hold the cop tube in place upon the spindle.

The inventor says: I do not claim the use of a cop tube of entire length of the spindle, when used alone and unconnected with the

button, or its equivalent, to guide the yarn over the point of the spindle A.

But I *claim* the employment of a button upon the end of the spindle or of the cop tube, for the purposes specified.

Second. In combination with the above I claim a cop tube of a length sufficient to hold the entire cop, as set forth.

Third. I claim a removable spindle in combination with the button and long cop tube, operating in the manner substantially as set forth.

No. 22,221.—NEWIEL J. WILLIS, of Lawrence, Massachusetts, assignor to SIDERA CHASE, of Brooklyn, New York, and GEORGE A. FULLER, of said Lawrence.—*Improvement in the Manufacture of Weavers' Shuttles.*—Patent dated November 30, 1858.—The claim and engraving explain the nature of this invention.

Claim.—The improved manufacture of weavers' shuttle, made substantially as described, viz: of separate blocks and a hard rubber or indurated vulcanized caoutchouc shell, or body, or its equivalent, cast or moulded on the nose blocks, arranged substantially in manner as described.

No. 21,556.—IRA DIMOCK, of Mansfield Centre, Connecticut.—*Improvement in Machines for Sorting Silk or other Thread according to its size.*—Patent dated September 21, 1858.—The principle of this invention consists in certain means whereby a thread or threads of silk or other fibrous material produced by spinning, or obtained in any other way, is so directed on to a bobbin or other winding apparatus that it will be distributed or arranged upon different parts of said bobbin, according to its size or thickness.

This invention further consists in certain means for controlling the winding of the thread or threads on a series of bobbins, or spools, from the bobbin or winding apparatus, on the several parts of which it has been distributed according to its size or thickness, so that all of one thickness will be wound upon one bobbin or spool, and all of another thickness on another, and the whole be sorted in as many quantities of different size or thickness, but each having nearly the same thickness throughout, as may be desired.

The inventor says: I *claim,* first, a device by which the varying thickness of the thread is made to shift a traversing guide, or its equivalent, to distribute the thread upon a winding apparatus according to its thickness, consisting of two surfaces, one of which is caused to receive a reciprocating motion through the agency of variations in the thickness of the thread passing between them; whether the said surfaces consist of the peripheries of an eccentric wheel and roller, as represented in the drawing and described, or have any other form which permits of their operation in an equivalent manner.

Second. The movable carriage T, with its opening 7 and notches 7^1 7^1, applied in combination with the series of spools S^1 S^2 S^3, and the bobbin D, or winder on which the thread has been distributed and arranged according to its size or thickness, and operating substantially as described to stop the winding operation as the unwinding of the thread from said bobbin or winder varies beyond certain parts thereof.

No. 21,481.—Ernest Bredt, of New York, New York.—*Improved Manufacture of Skirting Material.*—Patent dated September 14, 1858.—In order to form this improved skirting a shuttle containing suitable cord or tape to form the loops is employed, and at suitable intervals this tape shuttle is thrown through the shed, so as to apply the tape thereto, that it may be interwoven with the warp threads, as shown at A A; the warp threads are operated by suitable heddles or otherwise, in the modes well known in the art of weaving, so as to permit the tape to pass wholly beneath those warp threads where loops are to be formed, as shown at *e e e*, while it passes between the shed formed by the other warp threads in the same manner as ordinay filling, as shown at *i i i*.

The inventor says: I *claim*, as a new article of manufacture, the looped fabric described, having loops formed in it at intervals by combining the loop-forming material with the web in the process of weaving, substantially as set forth.

No. 22,262.—Cyriel E. Brown, of Millbury, Massachusetts, assignor to Himself, John Tenney and John Rhodes, of said Millbury.—*Improvement in Spindles for Throstle Spinning.*—Patent dated December 7, 1858.—In constructing this improvement a spindle A is made with a socket X in its end, to secure and sustain the movable spindle B; the spindle A is fastened in the rail C, and on it is fitted the flyer D, with its whir E; the flyer D is reversed, or placed in the position shown in the engravings; below the whir is placed the loose collar F, and below it the strap or slip G, which sustains the whir and flyer and secures them to the frame or rail, which is made stationary, and the traverse motion, or rise and fall, to fill the bobbin or make a cop is given to the rail C, with its spindle, or *vice versa*. The motion given to the slip G and the rail C is stationary.

Claim.—The combination and arrangement of the stationary socket spindle, the loose spindle, and the reversed flyer and whir, when constructed and operated in the manner and for the purposes set forth and described.

No. 20,285.—John Marland, of Lawrence, Massachusetts.—*Improvement in Machines for applying Cop Tubes to Spindles.*—Patent dated May 18, 1858.—In operating this machine the door *m* is raised and the tubes *p* are placed in the cavities *g*, the machine being turned with the openings *i* upmost for the purpose, and the drum H and rings being turned by manipulating the knob N, so that the alternate cavity in each longitudinal row is filled in succession; the drum is then slipped lengthwise a distance equal to the width of rings I, and the other alternate cavities are filled in a similar manner. The spring E is now wound up and the machine is placed as seen in the engravings, the two extreme tubes O^1 resting upon the spindles S, the tubes being at a distance from centre to centre equal to the distance of the spindles apart.

Claim.—The machine for putting cop tubes upon spindles, operating in the manner substantially as set forth.

No. 20,920 —AMASA HOUGHTON, of Putnam, Connecticut, assignor to EBENEZER D. DRAPER and GEORGE DRAPER, of Milford, Massachusetts.—*Improved Spinning Frames.*—Patent dated July 13, 1858.—The nature of this invention consists in combining and arranging with the upright spindle A, and bolster B, a cup or oil receptacle D, such being made to extend below and concentrically around the bolster and to project from the spindle.

Claim.—The application of the cup to the upright spindle and the bolster so as to operate therewith, substantially in manner as specified.

No. 19,161.—WILLIAM W. SPAFFORD, of Peterborough, New Hampshire.—*Improvement in Spinning Machines.*—Patent dated January 19, 1858.—The nature of this improvement consists in constructing a spinning machine in such a manner as to dispense entirely with the drums or cord cylinders, the cords, whirls, throstles, fliers, and rings usually employed in spinning yarns, thereby greatly simplifying, rendering the machine more substantial, and reducing its cost.

Claim.—The construction of spinning machines having series of bush-gear wheels *n o*, *n o*, *n o*, and twisting thimbles P P P Q combined, and working on the circumference of a main central driving gear wheel I I I I, said central driving gear wheel combined with the annular plates J J J K K K and the adjustable graduating segmental plates *t t t t*, the whole arranged and operated substantiallyas described.

No. 21,333.—CHARLES GREENE, of Salem, Mass.—*Improvement in Top Rollers for Spinning Machines.*—Patent dated August 31, 1858.—The nature of this invention consists in the application of each top roller to its spindle in such manner as to enable the roller to rotate and rock, or tilt on each spindle, and for the purpose of attaining one or more new and useful results.

Claim.—The application of a top roller of a spinning machine to its spindle, so as to be capable of rocking and rotating them, substantially in manner and for the purpose specified.

No. 19,531.—JOHN B. WINSLOW, of New Bedford, Mass.—*Improvement in Machines for regulating the supply of Spinning Machines.*—Patent dated March 2, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The combination of the secondary clutch and the main clutch made to operate together upon one shaft V, and to be operated by the fibrous material acting in the draw-rollers, substantially as specified, the same causing the shaft V and the bevel gear U, and of course the delivering belt, to have their speed varied as circumstances may require, as before specified.

No. 21,242.—JAMES H. BRICKILL, of Taunton, Massachusetts.—*Improvement in Spinning Mules.*—Patent dated August 24, 1858.—The inventor says: The object of this invention is to effect the operations of "backing off" and "winding on" in a more positive manner than is possible in Mason's mule, and thus to obviate the only serious defect in that mule.

Claim.—1st. Arranging the winding gear H loose on the stationary bushing C, or its equivalent, which surrounds and forms one of the bearings of the winding shaft, and applying a pall E attached to said gear, and a spring D fitted to the bushing, to engage the said gear with a ratchet wheel F fast on the winding shaft, in the manner described, whereby the winding shaft and winding gear are permitted to be entirely disconnected during the operation of backing off.

2d. The combination of the adjustable cam A *d* on the rock shaft P^1, the loose pulley B working on the stationary bushing C^1, or its equivalent, surrounding the winding shaft, the pall E^1 on said pulley, the clip spring D^1 on the bushing, and the ratchet wheel F^1 on the winding shaft; the whole operating together substantially as described to effect the backing off of the yarns. And in combination with the pall E^1, is claimed the pin G, applied as described, to disengage said pall and permit the reversal of the shaft to wind on the yarns.

3d. The combination of the brake wheel Y on the winding shaft, the brake X, and the tooth *h*, on the belt shipper, substantially as described, for the purpose of stopping or reducing the momentum of the winding shaft previous to the operation of backing off.

No. 19,011.—Smith Baldwin, of St. Louis, Missouri.—*Improvement in Spinning Oakum.*—Patent dated January 5, 1858.—This machine combines the process of carding and spinning, the picked oakum being supplied to it, is converted into a merchantable state for the use of caulkers, &c., at a single operation.

The claim of the inventor further shows the nature of this improvement.

Claim, 1st. The employment of two series of revolving, straight or knife-edged combs J J, arranged and operating as described, for the purpose of taking the web of carded oakum in an unbroken sheet from the doffer.

2d. The employment, in combination with the said endless moving apron O, and the stationary apron *e*, belonging to the first conductors P P of the roller S, operating as and for the purpose specified.

No. 20,925.—Britton Richardson, of Haydensville, Massachusetts, assignor to Himself and the Hayden Manufacturing Company, of Haydensville aforesaid.—*Improvement in Machinery for Polishing Thread.*—Patent dated July 13, 1858.—In this invention the threads or yarns pass between the sizing rollers C C, and dressing and polishing rollers D D, then pass over a guide roller E, and are taken on spools in manner common to dressing and polishing machinery; the rollers D D, rotate respectively in the directions indicated by the arrows, and by their friction upon the threads or yarns, rub the size into them, take up all that is superfluous, and rub down the loose fibres and polish the surface.

Claim.—The construction of the dressing and polishing rollers with ribs *a a* covered with flannel, felt, or material of similar character, and arranged relatively to each other, substantially as described to produce elasticity of surface.

No. 21,487.—Alfred B. Corey, of Franklin, Connecticut.—*Improvement in Moulds for Making Warp Dresser Guides of Glass or other Plastic Anti-Corrosive Material.*—Patent dated September 14, 1858.—The peculiar object of this invention is to enable a warp dresser guide to be moulded of glass and with very smooth eyes or yarn-holes. Glass eyes or yarn-holes not only resist acids as well as wear, but are capable of being moulded with very smooth surfaces.

The inventor says: I *claim* a new or improved manufacture of warp dresser guides made of glass, or its equivalent, and by moulding it on smooth cores and subsequently reducing the plate or the bars or projections made by the cores, substantially as described.

I also claim making a warp dresser guide in several separate sections A A, combined and applied in one frame, essentially as and for the purpose explained.

No. 21,488.—Alfred B. Corey, of Franklin, Connecticut.—*Improvement in Warp Dresser Guides*—Patent dated September 14, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: What I *claim* is my improved mould as made with plunger cavities *e e e*, of the kind described, in its bed plate B, a body or body and flange matrix *d*, a removable plunger guide C, or its equivalent, and a plunger D, provided with a series of projections or cores *g g*, the whole being combined and arranged substantially in manner and for the purpose as described.

No. 20,190.—William Bradley, of Manchester, Pennsylvania.—*Improvement in Dressing and Sizing Warps.*—Patent dated May 11, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I am aware that drying cylinders have been used heretofore in dressing frames, therefore I make no claim to them.

Neither do I claim as new the circular brushes.

I am also well aware that reeds and harness have been used heretofore in dressing machines, consequently I make no claim to them as such.

But I *claim* the combination of the section sleys or reeds, together with the warp sleys or reeds, and the harness for taking the lease or cross shed before the warp is sized in every alternate thread or threads, so as to allow the lease rods to pass with the warp to the yarn beam, and thus dispense with the use of combs, ravels, or guides, after the warp has passed through the size, substantially as described.

No. 21,988.—Waterman Smith, of Manchester, New Hampshire.—*Improvement in Preparing Wool and other Fibres for Spinning.*—Patent dated November 2, 1858.—The nature of this improvement in the process of working wool and other fibrous substances, consists in heating the wool or fibrous substance to make it soft and pliable, and drawing it, while hot, to straighten and elongate the fibres or sliver of the fibrous materials worked while hot.

Claim.—In the process of drawing wool and other fibrous substances, heating the sliver of wool or other substance, and keeping it

hot while it is being drawn by passing it over or against, and in contact with heated surfaces, either moving or stationary, substantially as described, for the purposes set forth.

No. 19,816.—THOMAS MUSGRAVE, of Leeds, Massachusetts, assignor to ANNA L. MUSGRAVE, of Northampton, Massachusetts.—*Improvement in Machines for Burring Wool.*—Patent dated March 30, 1858.—A full description of this machine is too long to be given here. The wool is placed on the usual feeding apron, which passes around the rollers *c c*, and thence the wool is taken by a pair of feed rollers *d d* and by them presented to the burring cylinder *b*, by which it is taken, and by the rotating beaters *e*, the burs are rolled out of the fibres of wool and knocked off.

The inventor says: I do not claim the construction of the burring cylinder or strippers or beaters, nor the combination of beaters or strippers with a burring cylinder.

But I *claim* the combination of the second burring cylinder and its beaters, substantially as described, with the first burring cylinder and its beaters, substantially as described, by means of an interposed stripper, or an equivalent therefor, as described.

No. 21,538.—JOHN W. KENNEDY and JOHN T. PLUMMER, of Plainfield, Connecticut, assignors to Themselves and JOHN BACHELDER, of Lisbon, Connecticut.—*Improvement in Machinery for Drawing and Twisting Wool.*—Patent dated September 14, 1858.—The nature of this invention consists in a certain novel combination of tubes and drawing rollers, and means of operating the said rollers, by which the processes of drawing and twisting can be performed simultaneously, or either of the said processes separately, and by which, when the two processes are combined, great convenience is afforded for varying the relative degrees of draught and twist, to suit various lengths and quantities of the fibre.

The inventors say: We do not claim the attachment of the front drawing rollers in a rotating tube through which the roving passes, so as to give the twist between the back and front drawing rollers, as we are aware that such application of the rollers has been made with a different and less simple contrivance than we have employed to produce the rotary motion of the so attached rollers.

But we *claim*, first, the combination of the tubes F and G, the toothed drawing rollers, and the convolute groove *h*, the whole applied and operating substantially as described, to effect the draught and twist simultaneously, or either alone.

Second. Making the upper part of the frame which carries the back drawing rollers and the rollers, or their equivalents, which carry the roving to be drawn and twisted, adjustable vertically, substantially as and for the purpose specified.

No. 21,116.—THOMAS B. BUTLER, of Norwalk, Connecticut.—*Improvement in Operating the Teeth of Cylinders for Burring Wool, &c.*—Patent dated August 10, 1858.—This invention consists in so applying and operating the teeth of a revolving cylinder B C, which presents

a uniform peripherical surface to the action of the strippers, brushes, or other analogous devices, that as said teeth *c c* are severally caused by the rotary motion of the cylinder to approach the feed rollers H H, which supply the wool or other material, they are projected beyond the peripherical surface of the cylinder for the purpose of seizing said material. Immediately after passing the feed roller they are retracted into "pockets" within the peripherical surface of the cylinder. The claim and engraving further explain the nature of this invention.

Claim.—The application of teeth to a rotating cylinder having a uniform peripherical surface, in such a manner as to be projected beyond the said surface to catch the fibrous material to be operated upon, and afterwards retracted into pockets within the said peripherical surface, for the purpose of holding said material and presenting the greater portion of it upon the even peripherical surface of the cylinder without any obstruction to the action of strippers, brushes, or other analogous devices for burring, ginning, or cleaning it, operating in combination with said cylinder, substantially as described.

No. 19,690.—Daniel Dermond, of Philadelphia, Pennsylvania.—*Improvement in Regulators for Roving or Yarn.*—Patent dated March 23, 1858.—This invention is principally intended to be applied to the jenny for spinning rope yarns, but may be adapted to other machinery for drawing and roving, or spinning hemp or other fibrous materials of similar character.

The inventor says: I do not claim the controlling of the movement of the heckle chain through the agency of the upper feed roller.

But I *claim* the combination of the pulley G, the system of spur gearing, the shaft A, pulley B, and enclosed box C, with the ratchet *a* and position stop *d*, the whole arranged, applied, and operating substantially as and for the purpose set forth.

IV.—CHEMICAL PROCESSES.

No. 20,755.—Joseph Albrecht, of New Orleans, Louisiana, assignor to Charles E. Ruhl, of said New Orleans.—*Improvement in Obtaining Pure Sulphurous Acid.*—Patent dated June 29, 1858.—The sulphurous acid gas, which accumulates below the head *d* of the cistern B, escapes through the tube *g h*, the coil *c c* of which is bathed in cold water, so as to cool the gas and condense any aqueous vapors which may have accompanied the gas. From the tube *g h* the purified sulphurous acid is conducted to a third cistern containing lime water and a small portion of neutral sulphate of lime.

The inventor says: I do not claim to have made any new discovery in chemical science, but I have applied known principles of science in such new and useful manner as to greatly improve the art of making pure sulphurous acid on a large scale.

I *claim* the described process for the purification of sulphurous acid gas by absorbing the acid in water or an alkaline solution, and the subsequent expulsion therefrom by the use of heat or steam, substantially as set forth, for the purposes described.

No. 21,711.—M. Werk, of Cincinnati, Ohio.—*Improvement in Apparatus for Manufacturing Acids.*—Patent dated October 5, 1858.—D is the vessel in which the decomposition is effected, furnished with a cock L near the top, to admit the body to be treated, which should be first melted. A is a boiler for generating steam, and B is a super-heating furnace containing a coil C to which the steam pipe E from the boiler is connected, and from which a pipe F leads to the vessel D and circulates within the vessel, in the form of a coil, which is perforated to admit the steam in numerous small streams.

The inventor says: I do not claim the use of the boiler as new, or the use of a furnace for super-heating steam as new, nor yet the use of a tank as new.

But I *claim* the combination of boiler, super-heating furnace, and tank for the production of fat acids without distillation or direct application of fire, as set forth.

No. 21,922.—Luigi Ferrari Corbelli, of Florence, Tuscany, and Vincent Raitti, of the Duchy of Modena, assignor to Luigi Ferrari Corbelli, aforesaid.—*Improvement in Preparation of Aluminium.*—Patent dated October 26, 1858.—This invention has for its object to obtain "aluminium" in a simple and more economical way than by the process heretofore employed.

The inventors say: We *claim*, first, the combination of operations set forth whereby we are enabled to reduce aluminium from earthy matters containing it as a base, or in combination with other matters.

Second. We claim the application of prussiate of potash to the clay or earthy matters, and the treatment of such clay or earthy matters with prussiate of potash in the presence of heat, substantially as described.

No. 21,923.—Luigi Ferrari Corbelli, of Florence, Tuscany, and Vincent Raitti, of the Duchy of Modena, assignor to Luigi Ferrari Corbelli, aforesaid.—*Improvement in Manufacture of Aluminium and Calomel.*—Patent dated October 26, 1858.—The object of this invention is to obtain "aluminium" in a simpler and much more economical manner than by the process heretofore employed for that purpose. The invention also applies to the manufacture of protochloride of mercury. In order to obtain aluminium by this improved method, the operator takes of rock alum 5931 parts, and of chloride of calcium 2076 parts; or of rock alum 5931 parts, and chloride of sodium 2190 parts; or of sulphate of alumina 4167 parts, and chloride of calcium 2076, or other salts having aluminium for their base may be substituted for those above mentioned.

Claim.—The process described of manufacturing at the same time aluminium and protochloride of mercury, by means of galvanic precipitation, as set forth.

No. 20,488.—George Habich, of Roxbury, Massachusetts.—*Improvement in Apparatus for Manufacture of Beer.*—Patent dated June 8, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* the combination, arrangement, and connexion of the copper, the mashing tun, the filtering vessel or vessels, and the hop vessel, substantially as specified, whereby the several operations connected with each of such parts can be conducted, through the agency of the heat from one furnace, and steam from its copper, substantially as specified.

I also claim combining and arranging the wort warmer with the copper, the hop vessel *c*, the filtering vessel or vessels *e e*, and the mashing tun *f*, so as to operate therewith substantially as set forth.

I also claim the combination of the condenser *d*, the hop vessels, the copper, the filtering apparatus *c*, and the mashing tun *f*, as connected and arranged so as to operate together, substantially as specified.

I also claim the arrangement and combination of the water heater *g*, the mashing tun *f*, the filtering apparatus, the hop vessel, and the copper, as connected and made to operate together, substantially as set forth.

No. 21,882.—John Jones, of Baltimore, Maryland.—*Improvement in Machines for Making Candles.*—Patent dated October 26, 1858.—The claim and engravings explain the nature of the improvements in this invention.

The inventor says: I do not claim the supplying of the wick as described at fig. 3, nor the cutting of the candle by bringing the knife edges together.

But I *claim* the feeding and packing roller A with blades moving alternately in and out by the cam G, as shown in the drawings, or by an eccentric, or any other device for the purpose of feeding and working tallow, wax, or any other plastic material.

I also claim the combination of one or more feeding and packing rollers A with the various moulds for the different purposes to which it is applicable.

I also claim the entire combination of the machinery for the purpose of cutting and removing the candles as described in figures 1, 2, 3, 4, 5, and 6.

No. 21,706.—Joel H. Tatum, of New York, N. Y.—*Improvement in Manufacture of Candles.*—Patent dated October 5, 1858.—The object of this invention is to indurate the exterior of tallow or other candles that are manufactured of inferior materials, in such a manner that a firm, smooth, and handsome external surface is obtained, on not liable to crack and shell off, and one that will prevent the candle from "guttering," add materially to their illuminating power, and will not soften sufficiently in a warm climate to be deteriorated in value.

Claim.—Coating or covering candles manufactured of tallow or other inferior substance with a plurality of compositions formed of stearic acid and tallow in varying proportions, together with proper fluxes to give different degrees of fusibility, and also certain degree

of hardness and smoothness to the same, substantially as described, the candles being dipped into the several compositions in the order of the sequences, as set forth.

No. 21,697.—Dubois D. Parmelee, of New York, N. Y.—*Improvement in Tools for Manufacturing Goods of Caoutchouc.*—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The instrument or tool for cutting sheets of India-rubber, or its equivalent, constructed substantially as described, consisting essentially of two jaws, provided with cutting edges shaped according to the form intended to be produced; when one jaw is to operate within the other so as to effect shear action for cutting forms at one stroke and leaving edges thereon, which are capable of being united in a more perfect and expeditious manner than has ever been done heretofore.

No. 21,122—Austin G. Day, of Seymour, Connecticut.—*Improvement in Treatment of Caoutchouc.*—Patent dated August 10, 1858.—This invention consists of a special process of making a hard, but highly elastic, rubber compound, by a process differing in the length of time, in the degree of heat, in the proportions of the ingredients, and in the mode of equalizing the heat, from that described by Nelson Goodyear, in his patent of 1851. A full description of the invention is too long for a place in this volume.

The inventor says: I do not claim in the broad, vulcanizing rubber or equivalent gums, and irrespective of the special process used and product made. Therefore—

What I *claim* is, running the heat for vulcanizing elastic hard rubber compounds as set forth through the several grades of temperature, and the several intervals of time described and illustrated in the specification.

I also claim making, as described, the elastic, hard rubber composition of two parts by weight of rubber, and one part of sulphur, when such composition is made preparatory to the running of the heat through the several grades of time and temperature, as set forth in the specification.

I also claim equalizing the temperature in the heating apparatus by mechanical means, or by a current of steam, or its equivalent, in the manner set forth.

No. 22,115.—De Grasse B. Fowler, of New York, N. Y.—*Improvements in the Mode of Baking Articles Composed of Carbon.*—Patent dated November 23, 1858.—The claim explains the nature of this invention.

Claim.—The manufacture of articles from a composition of carbon and gas tar, or their equivalents, when treated with pressure and heat, and baked in the presence of lime, substantially in the manner described.

No. 20,047 —Edward Deiss, of Paris, France.—*Improvement in Manufacture of Sulphuret of Carbon.*—Patent dated April 27, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first. The placing of the retorts over the principal flue, in order to obtain an intense heat at the base of the retorts.

Second. The earthen retorts in combination with the crucibles or pots, placed either within or outside the retorts, for the object and in the manner set forth.

Third. The grate C for supporting the charcoal, and tube E, or its equivalent, for feeding in the sulphur in combination with the crucible or retort, forming a chamber for the purpose described.

No. 21,158.—Joseph Thompson, of North Wrentham, Massachusetts.—*Improvement in Cement for Roofing Purposes.*—Patent dated August 10, 1858.—The inventor says: In the process of compounding my invention, I make use of silicates of potash, soda, or silicates of the alkaline earths as an addition to tar, resin residues, oil residues, and resin and other oils for the purpose of rendering the thickened compound elastic, and resistant to extremes of natural heat or cold.

I do not claim any mixture of the various kinds of tar and oils, but adapt such materials to the intended use, being governed in choice by the consideration of price, and confine myself to the modification produced in such mixtures by the use of soluble silicates. I call my solid mixed compound Thompson's Improved Mastic Roofing, and my fabrics Thompson's Improved Felt.

Neither do I claim the broad ground of a combination of one or more alkaline or earthy silicates, with one or more tarry matters.

But I *claim* the composition substantially as described, consisting of an alkaline silicate, oil or oils, coal tar, or pitch of coal tar, and naptha, (water being added when necessary,) such being for the purpose or purposes set forth.

No. 20,985.—Abraham Brower, of New York, N. Y.—*Improvement in Water-proof Cements.*—Patent dated July 27, 1858.—By a compound of tallow, beeswax, resin, shellac, and glue, the inventor produces a water-proof composition. It causes the leather to remain soft and pliable, which will take polish and repel water.

The inventor says: I am aware that water-proof compositions for leather, consisting of tallow, suet, wax, rosin, tar, oil and India rubber have been employed. These I do not claim of themselves, singly or combined.

I am not aware, however, of shellac or glue ever having been employed in unctuous water-proof compositions for leather; but these I do not claim of themselves in my composition, apart from the other ingredients, as all are required combined, to render it so excellent for the purposes set forth.

What I *claim* is, the composition composed of all the ingredients described, and in about the proportions for the purpose set forth; the same constituting an improved new and useful article of manufacture.

No. 20,758.—J. Burrows Hyde, of New York, N. Y., assignor to Anna M. Hyde, of said New York.—*Improvements in Converting Peat into Charcoal.*—Patent dated June 29, 1858.—After the peaty matter has been partially dried on the platform, it may be passed through proper mills for reducing the size of the lumps ; when it should again be exposed on the platforms, and when dried in a state to be carbonized, or it is first passed through a mill to grind it, and before carbonizing, it is exposed to artificial heat ; for further desiccation there is employed a drying chamber of brick, with a series of small iron doors. In the top of this chamber is an opening, conducting the excess heat to other drying apartments.

Claim.—The process described of converting peaty matters into charcoal by previously submitting them to heat in a drying chamber, described and heated as set forth, and by carbonizing the material and subsequently cooling the same in the manner set forth.

No. 20,661.—E. Freeman Prentiss, of Philadelphia, Pa.—*Improvement in Solutions for Cleansing Woollens, &c.*—Patent dated June 22, 1858.—The claim will explain the nature of this solution.

The inventor says : I do not desire to claim the employment of silicate of soda as an ingredient in the manufacture of soap, as that has been tried before.

Nor do I claim any mode of making alkaline silicates, nor yet the solution of alkaline silicates with chlorine or chlorides for bleaching and finishing textile fabrics, as these do not possess the cleansing properties of my solution prepared and used as described.

But I *claim* the employment of silicate of soda solution by itself, when prepared and used substantially as described for cleansing and softening the fabric in the fulling mill or wash tub as a wash mixture.

No. 20,697.—William Butcher & William A. Butcher, of Philadelphia, Pa.—*Improvement in Coating Metallic Surfaces.*—Patent dated June 29, 1858.—One gallon of linseed oil is taken, into which is placed from eight to twelve pounds of crude india rubber, the quantity being thus raised as the coating is required to be of greater or less consistency, which is boiled in a suitable vessel until the rubber is entirely dissolved in and thoroughly mixed with it.

The inventors say: We do not claim the coating described, nor the application of a coating or varnish, which is impervious to air, vapor, or water, to the surface of metals, to prevent the oxydation of said metals.

What we *claim* is the process of coating metallic surfaces described, consisting of heating the metal to be coated to about 350° of heat, containing the mixture prepared as described, and in placing the metal to be coated in a baking oven heated to about 200° of heat, to harden the coating, all as set forth.

No. 21,797.—Selah Hiler, of Haverstraw, N. Y., assignor to John M. Berrian & Cornelius A. Berrian, of New York, N. Y.—*Improvement in Coating Metals.*—Patent dated October 12, 1858.—The nature of this invention consists in a new method of coating iron or steel

with silver, copper, or brass, or any alloy where silver or copper is used, whereby the two metals become so united that they can be rolled, hammered, drawn, or otherwise worked without causing their separation.

The inventor says: I do not claim heating the iron or steel to be coated with brass, copper, silver, or other metals or alloys of metals, to a white or welding heat, that having been done before.

But what I *claim* is the coating iron or steel with copper, silver, or brass alloys, where silver or copper is used, by bringing the iron or steel, while in a melted state, into contact with the coating metal and allowing them to remain until the two metals have become hard by cooling, substantially as specified.

No. 20,383.—Samuel Whitemarsh, of Northampton, Mass.—*Improvement in Composition for Artificial Leather.*—Patent dated May 25, 1858.—The claim describes the nature of this invention.

The inventor says: I do not claim, broadly, the saturation of cloth and other fabrics in linseed oil containing umber or other substances.

But what I *claim* is the fabric specified, composed of cotton or other fibrous substance in a woven or unwoven condition, saturated or coated with a compound of linseed oil and burnt umber that has been prepared as described.

No. 19,778.—J. Burrows Hyde, of New York, N. Y.—*Improvements in Composition for Coating Telegraph Wires.*—Patent dated March 30, 1858.—The claim will explain the nature of this composition.

The inventor says: I do not wish to be understood as confining myself to the precise proportions set forth.

But I *claim* an insulating compound for telegraphic wires, formed by mixing boiled linseed, cotton seed, or rosin oil, with natural or artificial asphaltum, substantially in the manner as described.

No. 21,285.—Mark Tomlinson, of Birmingham, Connecticut.—*Improvement in Composition for Miniature Cases, &c.*—Patent dated August 24, 1858.—This invention consists of equal parts, by weight, of shellac, Breckenridge or cannel coal, and ivory black. The shellac and cannel coal are first finely pulverized, separately, and the three ingredients then well mixed together and fed between a pair of steam-heated rollers, one of which rotates at a higher velocity than the other, and are thereby ground into a pasty mass, which, while still hot and plastic, is cut and divided by a spatula or other instrument into cakes of sufficient size to form the articles or pieces to be made.

Claim.—The composition for useful and ornamental articles, made of shellac, Breckenridge or cannel coal, and ivory black, in about the proportions and in the manner substantially as set forth.

No. 22,233.—Paul B. Goddard, of Philadelphia, Pennsylvania.—*Improvement in Composition for Purifying Gas.*—Patent dated December 7, 1858.—This invention is for the purpose of purifying illuminating gas by the use of dissolved lime.

a represents the retorts used in the above named process; *b* the tube or cell into which the purifying materials are placed; C the communicating pipe between the two; and *d* the pipe leading to the gasometer.

Claim.—The use of lime dissolved in a saccharine solution, whether combined or not with other substances, substantially as set forth.

No. 19,756.—Clinton Daniels, of Elk Horn, Wisconsin.—*Improvement in Compositions for Tanning Leather.*—Patent dated March 30, 1858.—The claim will explain the nature of this composition.

Claim.—The combination and use of cream of tartar and bicarbonate of soda with catechu in making a liquor, and using the same for tanning hides and skins, no claim whatever being made to the discovery and use of the catechu alone for tanning purposes, by me.

No. 22,285.—William W. Gaige, of Rochester, New York.—*Improvement in Compositions for Tanning Leather.*—Patent dated December 14, 1858.—The nature of this invention consists in preparing and retaining the hides in a proper condition to receive the tan so as to gain about five-sixths of the time usually occupied for tanning the same weight of stock. Said process consists in the use of four separate liquors, named in the claim.

The inventor says: I do not claim to have discovered any new material for tanning except what is known more or less to the trade, but I do *claim* to have invented the use of salt and salsoda, in the proportion specified, for a preparatory liquor.

I also claim the combination of starch and catechu, in the proportion specified, for the second or first tanning liquor.

I also claim the combination of starch, catechu, and saltpetre, in the proportion specified, for the third liquor.

I also claim the combination of starch, catechu, and alum, in the proportion specified, for the fourth liquor.

No. 20,320.—Obadiah S. Boyden and Michael C. Frederick, of Newark, N. J.—*Improvement in Composition for Varnishing Leather.*—Patent dated May 25, 1858.—The inventor says: To make the paste we use about one pound of flaxseed to about every two gallons of water, and boil it until all the glutinous property has been exhausted from the seed. Of this paste we use in the compound a quantity about equal to that of the linseed oil, without any camphene or spirits of turpentine.

The proportions of oil, umber and lampblack, or other coloring for glazed or japanned leather, cloth, silk, and paper, are varied by different manufacturers. We, however, generally use one pound of umber for every twelve gallons of linseed oil, boil it from five to seven hours, and when cool add two pounds of lampblack for every gallon of oil, and the above specified quantity of paste. After stirring, the compound is ready to use.

Claim.—The employment in the compounds used in the manufacture of glazed, japanned, or painted leather, cloth, silk, and paper—either wholly or in part as a substitute for camphene or spirits of

turpentine—of a paste made of the glutinous properties of flaxseed, substantially as and for the purposes set forth.

No. 20,569.—J. M. Legaré, of Aiken, S. C.—*Improvement in Ivory Frame Composition.*—Patent dated June 15, 1858.—The composition is made as follows: A caustic alkali is prepared by dissolving 1 part of sub-carbonate soda in 8 parts of water, and adding 1 part of quick-lime slaked in 4 parts of water. Dissolve in 8 parts of this alkali, hot, 8 parts of transparent resin, and stir well until saponified or creamy in appearance. Then stir in 8 parts of kaolin or other neutral clay, adding 2 parts of resin, melted and mixed with ½ part of linseed oil; boil, remove from the fire, and stir in 4 parts melted glue. Finally work in by kneading, 6 or 8 parts of kaolin, which will give the proper doughy consistency.

Claim.—The employment of any saponified material, in combination with a neutral clay, as a basis of my composition, substantially as set forth in the specification.

No. 19,802.—Joseph Thompson, of North Wrentham, Mass.—*Improvement in Mastic Composition.*—Patent dated March 30, 1858.—The claim will explain the nature of this composition.

The inventor says: I do not claim any particular oily residue, or mixture of tar, pitch, or bitumen as a component part of a mastic, but use each of them as are best adapted to mixing with the new material, which serves as a basis.

Nor do I claim or use sand, brick dust, gravel, or any of the earths and oxides heretofore used in such mixtures.

I *claim* the right of using the naturally finely divided remains of silicious rocks, which have an alkaline action on test paper, as Fuller's earth, instead of sand, gravel, or other solid material.

No. 22,246.—Andrew Stevens, of New York, N. Y.—*Improvement in Water Proof Cork Composition.*—Patent dated December 7, 1858.—The nature of this invention consists in saturating, and thereby coating and impregnating granulated cork with a solution which shall, while it renders it less susceptible of absorbing moisture, and adapts it to the purpose of filling quilted linings for overcoats, jackets, &c., thereby converting them into life preservers; and also emits an odor distasteful to bed-bugs and other vermin.

Claim.—As an improved article of manufacture, granulated cork, that is covered and impregnated with the composition specified.

No. 21,778.—N. C. Raymond, of Austin, Texas.—*Improvement in Composition used as Building Materials.*—Patent dated October 12, 1858.—The nature of this invention consists in the production or formation of a material for building purposes, in the shape of an unburned brick, solid and durable, and possessing the power or quality of being unaffected by rain, as soon as the drying process fairly begins.

Claim.—The application of pasture-fed cow dung, either in substance or solution, together with lime, either slaked or unslaked, or

other powerful alkaline substance, and charcoal, to the common clays or soils of the country, for the purpose of producing a building material, substantially as described.

No. 19,710.—Charles Pauvert, of Targé, France.—*Improvement in Compounds for Hardening Iron and Steel.*—Patent dated March 23, 1858.—The object of this invention consists in purifying the iron in combining it chemically with the carbon by cementation, and in converting it into cast steel of first quality.

The cementing substance is composed of the following ingredients: 33 parts of very finely powdered charcoal, 33 of highly aluminous clay, 33 of carbonate of lime or wood ashes, 1 part carbonate of soda, and 1 of carbonate of potash. The iron is stratified with the cementing substance, in an ordinary cementation oven, heated in the usual manner.

Claim.—The use of the ingredients described, compounded in the manner specified, for converting iron into steel.

No. 21,033.—William W. Taylor, of Dartmouth, Mass.—*Improvement in Compounds for Protecting Trees from Insects.*—Patent dated July 27, 1858.—The nature of this invention consists in discovering a peculiar acrid, saline liquid, exceedingly poisonous to insects, which will not dry up or become hard, and which will not freeze during the ordinary temperature of February and March, the months when insects climb fruit trees.

The inventor says: The construction of the trough A in two pieces, as described, has not been claimed in the present application, although it is believed to be new; but it is designed to claim it in a separate application.

I *claim* the application of the bitter water left in the manufacture of sea salt, or its equivalent, to destroy canker worms and other insects, in their attempts to ascend trees, as set forth.

No. 21,023.—Lyman Reed, of Baltimore, Md.—*Improvement in Compounds for Treating Potato Rot.*—Patent dated July 27, 1858.—In describing the liquid noticed in the claim the inventor says: Take potash and fish oil, and other suitable ingredients to make and constitute hard oil soap. Dissolve thoroughly, or in proportionate quantities, one gallon of this hard oil soap in thirty-two gallons of water. This liquid, or any other material, compound, or composition of whatever name or nature, possessing similar qualities of alkalies, stringents, oils, or other chemical properties poisonous to the insects, however applied, hot or cold, and harmless to the germinating virtue of the tuber, may be used to destroy the insects.

The inventor says: I do not broadly claim the application of heat or oils, or poisonous substances to destroy insect life, as this has been done before for other purposes.

But I *claim* the treatment of the potato preparatory to planting to the process set forth, subjecting it to solar or artificial heat, and then to the action of the liquid described, or any other analogous or equivalent thereto.

No. 22,407.—Luther Atwood, of Brooklyn, New York—*Improvement in Apparatus for Destructive Distillation.*—Patent dated December 28, 1858.—This invention consists in the arrangement and combination of a vertical distilling tower A, or fire place and receiving vessel F with an exhausting steam blast, or its equivalent, combined in such a manner that a continuous and controllable current of air enters the top of the distilling tower, by reason of the pressure of the atmosphere induced by the exhausting produced by the action of the steam blast, maintaining the combustion of ignited fuel placed in the upper part of the distilling tower over the substance acted on, the products of combustion passing downward upon and through said substance, which is thereby progressively decomposed, the products of decomposition passing downward through the cooler portions of the mass imparting heat thereto, and the liquids condensed in the lower part of the distilling tower flowing into the receiver with which the exhausting steam blast is connected.

Claim.—The combination and arrangement of a "distilling tower" and receiving vessel, substantially as described, with a steam blast or its equivalent in the combination, for the purpose of producing an induced current, substantially in the manner and for the purposes set forth and described.

No. 21,693.—A. Normandy, of London, England.—*Improvement in Distillation of Fresh Water from Salt Water.*—Patent dated October 5, 1858.—This apparatus consists essentially of four parts: 1st, the evaporator; 2nd, the condenser; 3d, the priming box; 4th, the refrigerator; which four principal parts are securely bolted and fastened together. They are connected with four other accessory, namely: 5th, differential or equilibrium valve for regulating the pressure of steam; 6th, a water regulator; 7th, a steam trap; and 8th, a filter.

Claim.—The process set forth by which aerated and non-aerated fresh water are obtained by distilling sea water.

No. 22,408.—Luther Atwood, of Brooklyn, New York.—*Improvement in Apparatus for Destructive Distillation of Wood, &c.*—Patent dated December 28, 1858.—This invention consists in the use of the inner cylinder of metal V, which may be made of sufficient length to hold one, two, or three layers of cord wood packed endwise, provided with a perforated bottom G, and a suitable bale or handle U. Also in the manner of protecting the material while in process of decomposition from ashes from the combustion chamber A^1, by the arrangement of the passages N leading from the annular passage E into the distilling tower.

The inventor says: I *claim*, first, the use of the inner case V, in the manner and for the purposes set forth.

Second, the described arrangement of the flues N leading from the annular passage E into the distilling tower A, substantially and for the purposes set forth.

Third, the combination with the distilling tower of the combustion chamber or fire place A^1, when so arranged as to supply products of

combustion by a downward draught throught the fire place, substantially as described.

No. 19,210.—George Seitz, of Easton, Pennsylvania.—*Improvement in preparing Mash for Distillation.*—Patent dated January 26, 1858.—In this invention two mash tuns are provided A and B the one raised above the other, each furnished with rotary mixers D, so that when they are both thoroughly digested they can be mixed to the bottom of the tun.

Claim.—Steeping or infusing the maize and rye or other grain or malt separately, so that each may be subjected to the degree of temperature necessary for the proper separation or dissolution of their parts, and then uniting or mixing the two infusions, substantially as and for the purpose set forth.

No. 20,026.—David Alter and Samuel A. Hill, of Freeport, Pa.—*Improvement in Revolving Retorts for Distilling Coal, &c.*—Patent dated April 27, 1858.—This invention consists in giving a continuous rotary motion to cylindrical metallic retorts for the extraction of the volatile products of coal, bituminous shale and other minerals, for the purpose of subjecting the contents of the retort to a more uniform heat than can be obtained where the retort is stationary, and also greatly expediting the process without in any way diminishing the amount of product from a given quantity of coal, &c.

The inventors say: We do not claim originality or novelty in the use of cylindrical metallic retorts for dry distillation, nor yet do we claim the use of such retorts, so constructed as to be capable of being shifted on their axis from time to time so as to expose a different portion of the retort to the action of the fire at each successive change, for the purpose of preventing the retorts burning out so soon, as seen in Gengembre's patent.

But we *claim* the use of retorts, so constructed, as before described, as to revolve continuously on their axis during the process of distillation, substantially in the manner and for the purpose set forth.

No. 20,562.—John Howarth, of Salem, Mass.—*Improvement in Apparatus for Distilling Oils.*—Patent dated June 15, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, in combination with the still the reservoir *f* placed above the level at which the oil is to be kept in the still, and the worm heated as described, or in any other manner whereby heated oil under pressure is fed into the still in such a manner as to keep the oil therein always at one and the same level, as set forth.

2d. The use of a pipe *k* communicating with the several vapor spaces within the still, as described, whereby the condenser is relieved from the incondensible gases that are generated in the still, and which prevent the effective condensation of the vapor.

3d. A cutter formed in the neck of the still, for the purpose specified.

No. 20,587.—Thomas D. Sargent, of Washington, D. C.—*Improvement in Retorts for Distilling Oils from Coal.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The use of the cylinder retort A made of clay, and so arranged as to revolve upon its axis, during the process of distillation, or in place of a whole revolution, making only three-fourths of a revolution and turning back again, thus producing an oscillating motion for a clay retort, in the manner and for the purposes set forth.

No. 21,143.—John McCue and W. B. McCue, of Freeport, Pa.—*Improvement in Retorts for Distilling Oils from Coal.*—Patent dated August 10, 1858.—The nature of this invention consists in constructing and operating cylindrical metallic retorts for the purpose of extracting the volatile products of coal, bituminous shale and other minerals.

The inventors say: We are aware that there is a retort patented by Alter and Hill, which revolves continuously. We are also aware of Gengembre's patent, but both of these we disclaim, as our retort obviates difficulties which both of these patents are subject to.

But we *claim*, 1st. The employment of the connecting pipe C, located in the retort B, in other than a central position, whereby we are enabled to conduct off the oleaginous products of the coal, while the said retort partially revolves backward and forward on its axis as is fully set forth.

2d. We claim providing the retort B, with the longitudinal ribs, *d d d*, for the purpose of agitating the coal, and preventing its sliding, when the retort turns, as is fully described.

No. 20,371.—Daniel Reid, of Washington, N. C.—*Improvement in Apparatus for Distilling Spirit of Turpentine.*—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the melting and straining of the crude turpentine before its introduction to the retort.

But I *claim* the employment, in connexion with the still, of a steam box C, constructed with strainers *a b* of such form and capacity as to receive the barrels of crude turpentine, all substantially as and for the purposes described.

No. 20,465.—Leonard Bellingrath, Jr., of Fayetteville, N. C., assignor to Duncan McLaurin, William McLaurin, and James W. Strange, of said Fayetteville.—*Apparatus for Distilling Turpentine.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The arrangement of the enclosed air space between the alembic A and outer jacket or case B when said air space is furnished with air passages and an indicator of heat, so that the enclosed air may be heated by conduction instead of by the direct application of the fire, as set forth.

No. 19,184.—Matthew Delany, of Clinton, Mass.—*Improvement in Apparatus for Dyeing Yarn in the Skein.*—Patent dated January

26, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* combining with the vat A and the movable frame B, two series of supporting rollers K K K L L L, the pressure rollers I I I, and the key-shafts C^1 C^1 and their gears or mechanism for rotating such supporting rollers when the skeins are lowered into the vats, the whole being made to operate together substantially as described.

I also claim combining with the supporting-rollers and their sustaining frames the mechanism for separating the skeins or keeping them separate, and from overriding one another while they are in revolution.

I also claim the mode of constructing such skein-separating mechanism, viz: of a combination of crossed levers and two slide frames, arranged so as to operate together, substantially as set forth.

I also claim the mode of making the dipping-frame, viz: of a frame B and two twining frames M M, applied so as to operate together, substantially as described.

No. 19,701.—David B. Kerr, of New York, N. Y.—*Improvements in Dyeing Yarn Parti-colored.*—Patent dated March 23, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim* the method of arranging yarn in folds or loops of greater or less strength as a figure may require previous to the application of the dye, substantially as set forth.

I also claim the method of folding yarn as above set forth, in combination with the clamping of the same previous to the application of the dye, so as to preserve the integrity of the folds or loops, substantially as set forth.

I also claim the method of parti-coloring yarn by submitting it while clamped in folded loops of greater or less length to the action of the dye, substantially as set forth.

No. 20,034.—Dennis Brigham, of New York, N. Y.—*Improvement in Apparatus for Evaporating Brine.*—Patent dated April 27, 1858.—This invention has for its object the evaporation and purifying of brine. The engravings and claim will give an idea of its nature.

The inventor says: I disclaim all the separate parts of the described apparatus.

But I *claim* the arrangement of the steam-heaters N^1 N^2 N^3 N^4, with the boiler B B^1, pans c^1 c^2 c^3, and cistern D, respectively, in the manner set forth and for the purpose specified, so that the pans and cistern may be heated by one steam-pipe K^1 K^2 K^3, substantially as described.

No. 20,631.—D. M. Cook, of Mansfield, Ohio.—*Improvement in Pans for Evaporating Cane Juice.*—Patent dated June 22, 1858.—Fig. 3 represents a side view of the evaporator, with the heading *c c* resting on the rockers *f f f f*, together with the rubbers *g g*, the friction

segments *n n*, and the flues *o o*, which prevent the displacement of the rockers *f f f f*, and the levelling-frame *p p* on which the rockers rest.

The inventor says: I do not wish to be understood as claiming the corrugation of sheet-metal into flanges and spaces, so as to form an evaporation with transverse partitions running from opposite sides, thereby producing a continuous and opposite current in the fluid evaporated, as such is a well known device.

But I *claim* the evaporator, in combination with fireplace and flue *k*, the rockers *f f*, the levelling-frame *p*, the rubbers *g*, and the flanges *o*, as described, and for the purposes set forth.

No. 20,687.—H. O. Ames, of New Orleans, Louisiana.—*Improvement in Arrangement of Steam Coils in Evaporating Vessels.*—Patent dated June 29, 1858.—This is an improvement in the arrangement of the steam radiating pipes, with pockets F F to collect the water of condensation, and pipes to return the same to a waste-chamber B C, whereby a uniform temperature is obtained over the whole horizontal area of the pan.

Claim.—The arrangement of the convolute curved radiating pipes E E, the pockets F F, the straight water-pipes G G, and the steam and water chambers B C, in the manner substantially as described.

No. 20,438.—Eli J. Manville and Samuel G. Blackman, of Waterbury, Connecticut.—*Improvement in Gas Apparatus.*—Patent dated June 1, 1858.—From the under side of the top of the condenser *d* there descends a cylindrical flanch *f*, which terminates in a series of teeth that pass a short distance beneath the surface of the water in said condenser *d*. The gas-conducting tubes *e e* pass from opposite sides of the retort *a*, out through the sides of the cylinder *c*, and then descend vertically and enter the top of the condenser outside of the toothed flanch *f*.

The inventors say: We *claim* the peculiar combination and arrangement of the fire-chamber, the retort, and the condensing chamber, substantially as set forth.

We also claim combining the descending toothed flanch *f* with the cover of the condensing-chamber, for the purpose of dividing said chamber into two compartments, which communicate with each other by means of a series of small induction apertures at the surface water, substantially as set forth.

No. 21,072.—August Hendrickx, of New York, N. Y., assignor to Victoria Hendrickx, of said New York.—*Improvement in Apparatus for Condensing and Purifying Gas.*—Patent dated August 3, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, first, a gas-condenser which has the junction between its upper and lower chambers B C, accomplished by means of a water-channel G formed round the upper edge of the lower chamber *c*, and a flanch F formed round the bottom of the upper chamber B, in combination with stationary rods D D, which sustain the upper section and adjusting suspension screws E E, or their equiva-

lents, weights, cords, and pulleys, substantially as and for the purposes set forth.

Second. The specified arrangement of condenser and purifier on the same level and within the same chamber, substantially as and for the purposes set forth.

No. 21,142.—Henry Lyles, of Washington, D. C.—*Improvement in Apparatus for Generating Gas.*—Patent dated August 10, 1858.—The nature of this invention consists in the inner perforated chamber to be used for consuming solid matter, and this with the cock for the purpose of ascertaining the condition of the retort and the pipe for discharging continually the gas tar.

The inventor says: I do not claim any of the members of this apparatus, singly or individually.

But I *claim* the peculiar arrangement of the perforated chamber A. as constructed with the retort *a*, gauge-cock *e*, stop-cock *g*, and siphon pipe *f*, when they are constructed, combined, and operated in the manner and for the purpose specified.

No. 21,914.—Allen B. Wilson, of Waterbury, Connecticut.—*Improvement in Apparatus for Generating Gas.*—Patent dated October 26, 1858.—The object of this invention is to produce a generator or retort to be used in the mauufacture of grease or oil gas which shall obviate many of the difficulties now incident upon the use of such articles. The apparatus represented in the engravings will serve as an example of the principles of this invention.

The inventor says: I *claim*, first, the combination of a still with passages leading therefrom downward to a pipe, and so combined therewith as to protect the still from heat, the two being constructed and acting substantially as specified.

Second. I claim, in combination, a gas still, converting passages, and a valve, all combined substantially in the manner and for the purposes set forth.

No. 20,534.—John Absterdam, of Boston, Massachusetts.—*Improvement in Apparatus for Manufacturing Gas.*—Patent dated June 15, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim the naphthalizing boxes or contrivances made as described on pages 145 and 146 of Parnell's Applied Chemistry, or any other contrivance similar to them, my invention being different from such contrivances, as I employ for the passage of gas, spiral or serpentine unobstructed passages made of cloth, or any other fibrous or porous material, connected with shallow chambers or reservoirs, or their equivalents.

In carrying out my invention I do not employ a capillary material, which shall so fill the channel or gas passage as to materially obstruct the flow of gas through the same. And, furthermore, by my arrangement of the gas passage with reference to each chamber and its leading pipes, I effect such an extended circuit of gas in contact with the vaporizing surfaces as to enable me to bring the whole apparatus into

a very small compass, in comparison with others in use, and having the same amount of napthalizing power.

I do not claim the apparatus made of metal or other suitable material merely, as such solid apparatus is merely the skeleton, to sustain the passages or tubes made of cloth, which line such solid chambers, accurately forming a tubular passage of cloth through which the gas, air, or saturated vapor is driven.

But I *claim* the arranging of tubular passages G made of cloth, or other similar porous fabric, which elevate by capillary action the fluid in the chamber, allowing space sufficient for the passage of the æriform fluid, and allowing complete saturation of the latter, in the manner and for the purpose specified.

No. 20,541.—William Beaumont, of Paterson, New Jersey.—*Improvement in Apparatus for Manufacturing Gas.*—Patent dated June 15, 1858.—The arch F has a series of small flues *g g g* through it, or through its abutments which lead into the side flues H H, which extend through nearly the entire length of the retort A, and turn up into the upper side flues J J, which return to near the front end of the retort, and then turn into the top flue K, which extends from front to rear of the retort. The small holes *m m m* allow the flame to play along the concave portion of the retort. The holes *n n n* allow the flame to act on the rear end of the retort.

Claim.—In combination with the retort, the series of longitudinal flues H J K, and their communicating passages *g m n*, when arranged substantially as described.

No. 21,095.—Andrew Walker, of Clermont, N. H.—*Improvement in Apparatus for Purifying Gas.*—Patent dated August 3, 1858.—A is the horizontal box or washer, to which is attached pins or teeth *j j*, and on the top of which is placed the overflow or check box B, in the bottom of which is aperture H opening into the washer. The purifier or vertical washer C is attached to the check box B, extending about three-fourths of the distance across the box from each side, alternately passing each other, leaving shelves *b* the whole distance of the vertical box; near the top of said box is pipe G for the admission of water; the gas escapes at pipe E.

Claim.—The construction of the cover of the horizontal washer A, with teeth *j*, as described and for the purpose set forth.

No. 21,096.—John Waterhouse, of Little Falls, N. Y.—*Improvement in Apparatus for Purifying Gas.*—Patent dated August 3, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* introducing the gas into the purifier underneath a table, or its equivalent, near the surface of the lime water, so that it (the gas) shall pass horizontally through the lime water a sufficient distance to effect its purification before it can rise to the chamber above, as set forth, by which means I obviate much of the pressure heretofore encountered in lime water purifiers, and get a better yield at a great saving of retorts, as stated.

No. 21,121.—W. F. Danousky, of Allentown, Pa.—*Improvement in Apparatus for Purifying Gas.*—Patent dated August 10, 1858.—This invention relates to that class of gas works which use the dry lime process for purifying the gas, and consists in the use of a simple and economical apparatus for purifying gas, which obviates the necessity of keeping attendants of more than ordinary intelligence as laborers, and enables the operator to use not only bituminous coal, but any and all of the well known materials out of which gas is commonly made.

Claim.—The use of the purifier D, when arranged and combined with a gas-trap E, in the manner and for the purpose described.

No. 22,391.—Andrew Walker, of Claremont, N. H.—*Improvement in Apparatus for Purifying Gas.*—Patent dated December 21, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The combination and arrangement of separate chambers opening into each other in such manner that a current of water or fluid may be made to flow through the series in thin falls or sheets, or from one chamber to the next in a thin fall or sheet, substantially as described, and a current of gas be made to pass upward and through the several chambers, and successively through and against the several falls or sheets of fluid, essentially as explained, the chambers being disposed one over the other in column, and the whole being to effect the purification of gas for illumination, as described.

No. 21,001.—August Hendrickx, of New York, N. Y.—*Improvement in Valves of Gas Apparatus.*—Patent dated July 27, 1858.—The nature of this invention consists in the application to the main pipe of gas retorts of a water valve with a loose cover, which is perforated round its sides or circumference with a series of small holes, and constructed so as fit into and rest upon the bottom of said water chamber or channel, and have its perforations closed by the water in the same, and allow communication between the retort A and the receiver.

Claim.—In the application of water valves to the main pipe of gas retorts, the use of a loose perforated cover C *a*, substantially as and for the purposes set forth.

No. 20,110.—Thomas Walker, of New York, N. Y.—*Improvement in Apparatus for Generating Carbonic Acid Gas.*—Patent dated April 27, 1858.—The object of this invention is to generate carbonic acid gas and charge liquids with the same in such a way that no gas can escape during the process.

The inventor says: I *claim* the bottle E and chamber D connected together, provided with the ball valve *g*, so that communication is obtained between the chamber D and bottle E by the tilting or inclining of the same, when these parts are combined with and applied to the receiver A in the manner and for the purpose substantially as specified.

No. 19,777.—John G. Hock, of Newark, N. J.—*Improvement in Gas Generators.*—Patent dated March 30, 1858.—This invention consists in certain provisions for vaporizing the tar from coal or other

gas, and returning it in a state of vapor to the retort to be decomposed and converted into gas.

The inventor says: I do not claim broadly to be the first inventor of retorts having perforated bottoms and chambers, nor do I claim the chambers B^1 C, separately considered, substantially as shown and described.

What I *claim* is the arrangement together of the rain retort B, chambers B^1 C, and open space *c*, substantially as and for the purposes set forth.

No. 20,177.—William N. Taylor, of Philadelphia, Pa.—*Improvement in Gas Generators.*—Patent dated May 4, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim*, first, the combination of the retort with a series of movable partitions, connected so that all can be taken out together, and so arranged as to divide the retort into a series of chambers through which the gas circulates in its passage from the lower chamber to the discharge pipe, for the purpose described.

Second. Dividing these chambers by means of punctured diaphragms, or their equivalent, arranged as described, in order to retard the passage of the gas, and bring the entire volume in contact with the heated metal, for the purpose described.

No. 20,897.—George W. R. Seal, of Winchester, Virginia.—*Improvement in Gas Generators.*—Patent dated July 13, 1858.—A retort, divided into two chambers A and B, is employed, in one of which the substance to be converted into gas is made into vapor, and in the other the vapor is converted into permanent gas by passing through a packing of cellular character, so that it comes in contact with a great amount of heating surface. The invention consists in the employment of this cellular packing of shavings or scraps of copper or its alloys, by whose superior conducting powers the vapors are more rapidly decomposed than when pebbles or scraps of iron are employed to form cellular packing in the retorts. An extra diaphragm E is also employed in the second chamber to support a portion of the packing, and it is movable to vary the depth of the packing to suit the various materials that may be employed to make the gas.

The inventor says: I do not claim the use of scraps of iron, or of pebbles, or pieces of stone in a gas retort, to form an extensive heating surface.

But I *claim* the employment of a secondary movable diaphragm applied within the retort, so as to support a portion of the cellular packing, and to be capable of being raised and lowered with such portion of the packing, substantially as and for the purpose set forth.

No. 19,686.—Saunders Coates, of New York, N. Y.—*Improvement in Method of Cleaning Gas Generators.*—Patent dated March 23, 1858.—This improvement consists in admitting atmospheric air into the retort at its upper part when necessary to clean it, and at the

same time creating a draught in the retort by means of an opening from the upper part into the chimney, or into the fire under the retort, whereby the gaseous products of combustion will be drawn off and the air caused to enter.

Claim.—The mode of clearing the retort by the admission of atmospheric air at the top of said retort, in combination with the draught-pipe for carrying off the products of combustion ; the whole being arranged in the manner substantially as set forth.

No. 22,463.—Charles N. Tyler, of Washington, District of Columbia.—*Improvement in Apparatus for Generating Illuminating Gas.*—Patent dated December 28, 1858.—The claim and engravings give an idea of the nature of this invention.

The inventor says: I *claim*—1st. The peculiar arrangement and combination of the retort for generating the hydrogen gas with the main retort for the generation of the illuminating gas, substantially as set forth.

2d. Elongating and contracting the rear of the main retort, in the manner and for the purpose substantially as set forth.

3d. Connecting the rear end of the hydrogen retort with the contracted end of the main retort, in the manner and for the purposes substantially as set forth.

No. 21,027.—J. Milton Saunders, of Cincinnati, Ohio.—*Production of Illuminating Gas.*—Patent dated July 27, 1858.—The nature of this invention consists in making an illuminating gas by passing the vapor of water and a hydro-carbon, previously mixed into a retort containing carbon, and bringing said retort up to a high red heat, which produces the gas in question.

Claim.—Carrying the mixed vapors of water and hydro-carbon, formed in the manner described, into a retort B, containing carbon at a high red heat, for the purpose of producing an illuminating gas.

No. 19,575.—David C. Knab, of Paris, France.—*Improvement in Manufacture of Gas.*—Patent dated March 9, 1858.—The coal is brought in wagons or cars *d* above the charge-hole C; then it drops into the distilling chamber, where it is spread over the sole by means of rakes, hoes, or any other suitable implements. The orifice C and the doors are hermetically closed, and the valve *g* is raised to allow the gas, tar, and ammonia to escape. The latter two products are condensed and carried off by means of a siphon tube into a cistern.

Claim.—The manufacture of gas and of coke, and other secondary products, in furnaces constructed and operated substantially in the manner set forth.

No. 20,453.—John L. Stewart, of East Boston, Massachusetts.—*Improvement in Manufacture of Gas.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* mixing the gases from the several retorts of a series alternating in one or other of them, and charging the retorts successively at stated intervals, as set forth, when the retorts are

arranged with valves and passages of communication with each other, whereby the gases of different qualities are commingled before being cooled, as described, for the purpose specified.

Second. I claim conducting the gas from one retort to the other through a non-conducting stopper, or other equivalent device temporarily inserted in the mouth-piece, as set forth.

No. 20,130.—Thomas Shaw, of Philadelphia, Pennsylvania, assignor to Himself and C. S. Patterson, of said Philadelphia.—*Improvement in Gas Metres.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The construction of the oscillating drum B in such a manner as to contain the sealing fluid or seal W, with lever L attached to said drum; the whole for operating the valve G by the oscillation of the drum, as set forth, in combination with the inlet and outlet passages *y* and *z*, as described.

No. 21,663.—Joseph E. Fisk, of Salem, Massachusetts.—*Improvement in Gas Metres.*—Patent dated October 5, 1858.—A denotes the upper gas chamber or reservoir, B the valve seat, and *a b c d* the tubes or passages connecting the valve seat with the working parts of the metre. On the valve seat rests the valve C, secured by the square socket *s* to the crank-shaft D, which passes down through the valve and into the chamber E and through the partition K and into the chamber H, it being connected with the cranks *e* and *f* and the operative parts.

The inventor says: I do not claim the employment of two flexible bellows in two separate chambers.

Nor do I claim the mode of constructing the flexible bellows, as exhibited in the United States patent numbered 9,591, wherein such bellows is made of two metallic shallow dishes or partitions joined at their edges by a flexible connexion. This differs essentially from my invention, wherein a sack I or J, separate from and arranged within a flexible enclosing case M or N, is employed; as in my invention the sack alone constitutes the gas-receiving chamber, and can be readily removed from its flexible case whenever necessary without requiring the enclosing case to be removed from the metre.

I *claim* the described improved arrangement of the partition K and the shaft D, the cranks, valve C, and valve seat B, with respect to the chambers E H and A, and the pipes or passages *a b c d*, the same enabling one shaft D only necessary to the operation of the valve by the two sacks I and J.

I also claim combining with each flexible sack I J a flexible enclosing case M or N, arranged so as to operate therewith, as specified.

I also claim the arrangement and application of the pipe F with respect to the valve C and the case of the metre, the same being in manner and for the purpose as specified.

No. 20,680.—Charles C. Lloyd, of Philadelphia, Pa., assignor to William Hopper and Robert H. Gratz, of said Philadelphia.—*Improvement in Valves for Dry Gas Metres.*—Patent dated June 22,

1858.—This improvement relates to the mode of constructing and operating the valve of the dry metre so as to cause the valve to keep the valve seat *g g* free from deposit, and also to cause the rotary motion to be always imparted to it in the plane parallel to that in which it is to be rotated.

The inventor says: I *claim*, first, the construction of the rotary valve *e e*, with a series of breaks or edges as at *f p p* and *q q*, arranged and operating so as to scrape the upper surface of the valve seat.

Second. The drip K and valve seat *g g*, arranged and operating so as to collect and carry off any liquid deposit in the metre.

Third. The valve carriage D D, arranged and operating substantially as described.

No. 20,058.—H. P. Gengembre, of Rock Island, Illinois.—*Improvement in Liquids for Gas Metres.*—Patent dated April 27, 1858.—The nature of this invention consists in replacing the water used in gas metres by means or use of a fluid compound composed of deliquescent earthy and metallic salt, or salts, at such a degree of saturation as will insure the fluidity of this solution at any ordinary winter temperature, and in keeping the upper stratas of the liquor always in contact with a substance or substances which will maintain the chemical neutrality of the salt or salts employed.

The inventor says: I do not claim replacing water in wet gas metres by a liquid not affected by frost, as I am aware that alcohol has been employed for that purpose; nor do I claim keeping a salt solution neutral by the presence of a base or carbonate.

But I *claim* the use of an aqueous solution of deliquescent metallic and earthy salt or salts in gas metres and the suspension in the upper stratas of the liquid of a base or carbonate of the base of the salt or salts employed, substantially in the manner and for the purpose as set forth.

No. 22,267.—Robert M. Potter, of New York, N. Y., assignor to William McKenzie, of said New York, and said McKenzie having reassigned the same to said Potter.—*Improvement in Valves for Gas Metres.*—Patent dated December 7, 1858.—*a* is the inlet supply pipe; *b* is the eccentric sliding valve, constructed with a centre vent and circular gas canal, formed in the under side of the valve between two eccentric rings by a continuous groove making a complete circle; *b* is also constructed with a piston which has a fixed point at bracket *c*. This piston is the centre of equipoise, equipollence, and semi-equal motion, and prevents *b* from a possibility of rotating or being displaced.

Claim.—The eccentric sliding valve *b*, when constructed, arranged, and operated substantially as described.

No. 20,625.—John H. Cooper, of Philadelphia, Pennsylvania.—*Improvement in Gas Regulators.*—Patent dated June 22, 1858.—The lid or cover H H with an air-hole *x* is secured to the casing A A by the screws *j j*. The gas enters first from the metre into the valve chamber E, thence through the valve openings *e e* into all the interior

part of the instrument beneath the inverted cup G, making its exit through the nozzle C.

The inventor says: I am aware that gas regulators in which an inverted cup loaded with weights and attached to a valve are in common use. This I do not claim.

But I *claim* guiding the inverted cup G by an arm P when the latter is loosely jointed to the casing and to the cup in the manner specified.

I also claim combining the coupling screw D, the valve seat *e e*, chamber E, and the inclined outlet B with each other, for the purposes set forth.

No. 21,048.—Charles F. Holzer, of Philadelphia, Pennsylvania, assignor to William B. Smith and William Bromwell, of Philadelphia aforesaid.—*Improvement in Gas Regulators.*—Patent dated July 27, 1858.—This invention consists in certain arrangements of the working parts and of the passages by which the spring *g* and guide for the valve *d* and cup B are protected from the injurious effects of exposure to the gas, and provision is made for the return, through the inlet opening of the regulator of water, tar, or other foreign substance that may be condensed from the gas; thus obviating the necessity of a siphon or waste receptacle attached to the regulator.

The inventor says: I do not claim the combination of an inlet and outlet chamber, a valve, an inverted cup, and a spring, as I am aware that such combination is used in most gas regulators.

But I *claim* the peculiar arrangement, as described, of the inlet and outlet chambers, the valve, the inverted cup, the spring and guide pin, whereby the spring and the guide are effectually protected from contact with the gas, and provision is made for the return of all liquid matter through the inlet pipe, as fully set forth.

No. 21,022.—J. H. Powers, of Newark, New Jersey.—*Improvement in Gas Regulators.*—Patent dated July 27, 1858.—This invention relates to that kind of regulator whose valve is of the form of an inverted cup, with notches in its sides, and works in a seat of quicksilver; said valve having its opening controlled by the pressure of the gas upon an inverted cup floating in a basin of quicksilver. This invention consists in a certain arrangement of the quicksilver basin valve seat, inverted pressure cup valve, and inlet passage, whereby great simplicity of construction and effective operation is obtained.

The inventor says: I do not claim the inverted pressure cup, nor the grooved or notched inverted cup-shaped valve working in a seat of quicksilver, as the cup is specified in several patents, and the valve is specified in combination with the cup in my patent of September 1, 1857.

Nor do I claim any of the other parts of the regulator, as separately considered.

But I *claim* the arrangement of the annular pressure cup B C and regulating valve D in the double annular quicksilver basin *e f*, whose inner and outer channels *e* and *f* are arranged at a distance apart to form between them a passage *g*, through which a communication is

established between the interior of the cup and the atmosphere, all substantially as described.

No. 21,281.—W. G. Sterling, of Bridgeport, Connecticut.—*Improvement in Gas Regulators.*—Patent dated August 24, 1858.—The valve seat K is adjusted in its place by pressing the gasometer E down the cross-bar L on the rod G H, forces the valve seat K to its place, or the cross-bar may be attached to the valve seat, and the rod play through it, so as to press it to its place. The screw M holds it in its position.

The inventor says: First. I *claim* the described adjustable conical-shaped valve seat, with its cross-bar, or its equivalent, and valve attached.

Second. I claim the set screw in combination with the valve seat, or any other construction substantially the same.

Third. I claim the combination of the movable valve seat, valve, and cross-bar, attached in any manner whatever to a gasometer, disk, diaphragm, or other device, by which said regulator can be cleaned, without the least derangement to the machine, as described, or in any other form, or in any other way equivalent thereto.

No. 21,544.—Salmon Bidwell, of Chicago, Illinois, assignor to the New York Car and Steamboat Gas Company, of New York, N. Y.—*Improvement in Gas Regulators.*—Patent dated September 21, 1858.—The nature of this invention consists in the mode of operating the cock by the spring and diaphragm by the pressure of gas in the regulator.

A is the cylinder, B the top of the cylinder, C the inlet for admitting the gas to the cylinder through the cock; C^1 the outlet, D the pipe through which is inserted the spiral spring, and which is regulated by a screw; E the screw passing into pipe D, with rubber washer *e* to make it gas-tight.

Claim.—The cock F operated by the diaphragm *c*, rod *b*, and spring *a*, as described and set forth.

No. 21,765.—William Mallerd, of Bridgeport, Conn.—*Improvement in Gas Regulators.*—Patent dated October 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim broadly the use of the rising and falling of the reservoir 2 for the purpose of regulating the pressure of the gas.

But I *claim* arranging the graduated lever 4 with the adjustable weight 17 in combination with the reservoir 2 and the valve 10 in such a manner that by raising the reservoir the valve is closed and the supply of gas stopped, so that the pressure of the reservoir can be regulated by adjusting the weight 17.

And in combination with the lever and reservoir 1 claim admitting the gas to the reservoir by means of a small tube 8 which is contracted toward its upper end so that impurities carried up by the gas are deposited outside of said tube without being able to interfere with the working parts of the gas regulator.

And I further claim arranging the stud 21 in combination with lever 4, rod 9, and valve 10, in such a manner that by depressing the stud 21 the supply of gas may be ascertained without raising the cover of the regulator.

No. 20,375.—I. T. Sloan, Volney Smith, Manuel Hoover, and R. M. Briggs, of Jackson, Cal.—*Improvement in Gas Retorts.*—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The employment, in the manufacture of gas from wood, of a cylindrical retort A placed horizontally, and having a door to close the opening for the reception of material, swinging upon hinges and shutting with a staple and eye to receive a wedge, the other end T being closed with a clamp and wedge.

No. 20,448.—Warren A. Simonds, of Chelsea, Mass.—*Improvement in Gas Retorts.*—Patent dated June 1, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim broadly the invention of double-chambered retorts, whether the said chambers are placed side by side or separately. Nor do I claim a tubular retort connected at either end by joints and plugs.

But I *claim*, first, a common coal retort A, with a separated return chamber B above and outside, but connected at the back end with the lower chamber A, when the whole is made in one piece and forms a continuous retort, as set forth.

Second. I claim placing an escape pipe *b* directly under the stand pipe E, which conducts the gas to the hydraulic main for the purpose of drawing off the tar and preventing it from returning to the retort B to crystallize and clog up the said retort.

No. 20,671.—Charles N. Tyler, of Washington, D. C.—*Improvement in Gas Retorts* —Patent dated June 22, 1858.—This invention consists in so constructing the chamber in which the hydrogen is generated, arranging and connecting it with the other retort in which the dry distillation takes place, that the hydrogen shall be brought in contact with the carburated hydrogen gas as it enters the passage that leads from the retort into the hydraulic main, at which point, immediately beneath the outlet of hydrogen retort, the main retort is formed with a cavity *a*, into which the heavy carbonaceous matter is precipitated by the force of the current of hydrogen from above.

The inventor says: I *claim*, first, the combination of the cavity *a* with the outlet *b* of the hydrogen retort, in the manner and for the purposes substantially as set forth.

Second. I claim elongating the end of the retort A so that the cavity *a* may be arranged on the inside of the furnace for the purposes set forth.

No. 21,169.—Alfred Marsh, of Detroit Mich., assignor to himself, E. Hall Covell, John Q. Dudley, and Robert Holmes, of said Detroit.—*Improvement in Gas Retorts.*—Patent dated August 10,

1858.—The nature of this invention consists in the construction of apparatus for the manufacture of gas from resin or oils; in providing a vertical retort A, and placing within said retort a spiral column B supported upon feet, and having a tube or flue E passing through its entire length, being perforated with holes at right angles with the flue, and between the threads of the spiral column, the whole column being surrounded by an iron case J fitting close to the column.

The inventor says: I do not claim the retort only as in connexion with my arrangement, nor do I claim the mode of introducing the gas-making material into the retort as set forth, nor the exit of the gas as described, nor the conducting the fumes from a retort by a pipe, only in connexion with my arrangement as described; but

I *claim,* in the construction of apparatus for the manufacturing of gas from resin or oils, the spiral column resting on feet, with the flue through the centre; and also the apertures between the threads of the spiral column in combination with the case, in the manner and for the purposes substantially as set forth.

No. 22,434.—William H. Laubach, of Philadelphia, Pa.—*Improvement in Gas Retorts.*—Patent dated December 28, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Dividing the retort into an upper and lower chamber by means of a movable plate D, said plate being so constructed and arranged in respect to its flanches, or projections in the retort, and being so weighted that the amount of vapor admitted into the communication between the two chambers shall be proportionate to the rapidity with which it is generated, and that the vapor shall pass from the lower chamber in a stream so attenuated and so exposed to red hot surfaces as to insure its being converted into permanent gas on entering the upper chamber, as set forth.

No. 20,567.—William H. Laubach, of Philadelphia, Pa.—*Improvement in Retorts for Generating Gas.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim*, first, the construction of the retort with a convolute passage made in two parts, fitting together in the manner substantially as described, whereby a great amount of heating surface is obtained for the conversion of the vapor into permanent gas, and provision is made for cleaning out the passage.

Second. Combining the movable cover G with the valve E of the charge by means of a T-shaped head on the valve stem and pins *g g*, inside the said cover, or their equivalent, to regulate the supply of fluid material to the retort while in operation by turning the said cover.

No. 19,655.—John W. Smith, of Washington, D. C.—*Improvement in Portable Gas Retorts.*—Patent dated March 16, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not claim any apparatus which admits of the passage of gas between heated surfaces, when the passages are

only opened at intervals by the pressure of gas or steam, as such has been before described.

But I *claim* the combination of the horizontal retort B with the casing C, when the former is constructed with an open end, and so arranged in reference to the latter that a space shall be constantly left open for the passage of the gas between the retort and the casing, in the manner described and for the purpose specified.

No. 19,900.—David L. Weatherhead and James T. Henry, of Philadelphia, Pennsylvania, assignors to Themselves, John M. Smith, and William P. Campbell, of said Philadelphia.—*Improvement in Portable Gas Retorts.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The exterior horizontal cylinder B in combination with the interior horizontal perforated cylinder C, charged with pumice stone, when the cylinders are so constructed and arranged that the material from which the gas is to be made shall flow into the annular space between the two cylinders, and the gas when generated shall pass through the body of porous material for the purpose of purification in the manner described.

No. 21,887.—George W. Kraft, of Philadelphia, Pennsylvania.—*Improvement in Gasometers.*—Patent dated October 26, 1858.—*a* is the shell of the upper section, *b* the shell of the lower section, *c* angle iron legs, *d* angle iron rings of cup, *e* stay irons to strengthen cup, *f* bead iron on edge of cup, *g* plate ring of square cup, *h* the cup rim.

Claim.—The construction and application of the V-shaped cup or lute, whether as shown by the inner section figure 2, or by the inner or outer section figure 3 ; and this I claim whether it be accomplished precisely as described, or in any manner equivalent thereto, producing substantially the same result.

No. 20,988.—P. T. Burtis, of Chicago, Illinois.—*Improvement in Method of Counterpoising Gasometers.*—Patent dated July 27, 1858.—This invention is applicable to telescopic gasometers, or to gasometers in which the holder is single. It consists in a certain arrangement of the chains connecting the counterbalance weights of the holder or any of its sections, whereby any binding in the tank and uneven rising and falling, and the loss of gas, and other bad consequences thereby caused, are prevented.

Claim —The arrangement of the chains *e e*, in combination with the weights *d d* and chains *a a*, substantially as described, whereby, when there is any tendency on the part of the holder, or the section thereof, to which said weights are applied, to work unevenly, the highest side is relieved from the counterbalance weights, and two of the said weights are brought wholly into action on the lowest side, substantially as explained.

No. 19,668.—Joseph Weisman, of Philadelphia, Pennsylvania.—*Improvement in using Graphite in Reducing Metals.*—Patent dated March 16, 1858.—The crucible is filled with the ore or metals to be

operated on; mixed and imbedded in powdered graphite, it is then luted over as secure as possible with graphite paste or clay, so as to exclude as much as possible the atmosphere. The crucible is then subjected to heat of a greater or less intensity, according to the nature of the materials it contains, for a period of from six to twenty-four hours.

Claim.—The use and mode of using graphite, plumbago, or black lead, for the purposes and in the manner set forth and described.

No. 21,761.—John Keane, of New York, N. Y.—*Improvement in Apparatus for Preserving Malt Liquors.*—Patent dated October 12, 1858.—This invention consists in a diaphragm or bag of India-rubber, of a size and form to constitute a lining to half of the vessel to which it is applied, secured by its edges all around the interior of the vessel near the middle thereof. This invention is particularly advantageous in its application to beer casks, but may be applied to vessels containing any kind of liquors.

Claim.—The diaphragm or bag of India-rubber, or other similar flexible material, of a form to fit simply to half of the cask or other vessel, and attached all round the middle of the same, so as to operate in the manner described for the purpose set forth.

No. 19,974.—Charles F. Spieker, of New York, N. Y.—*Improvement in Preparing Manure-Beds.*—Patent dated April 13, 1858; patented in England, August 19, 1857.—The claim of the inventor will give the reader an idea of the nature of this invention.

The inventor says: I disclaim distinctly the discovery of the fact that ammonia is absorbed to a small extent by oxyds of iron, or aluminous earth in its natural state, or that it is produced by the decomposition of animal substances in contact with air and water.

But I *claim* the use of the peculiar process by which I produce, condense, and fix ammonia, and change it into salts of ammonia, in ammonia-beds made of aluminous earth, silicates of alumina, or the oxyds of iron, sheltered from the rain and excessive temperatue, and charged with diluted acids or weak solutions of such salts for the acid of which ammonia has a greater affinity than the base with which it was combined, in the manner and for the purpose set forth.

No. 21,835.—Isaac G. Johnson, of Spuyten Duyvil, N. Y.—*Improvement in Bottles for Containing Mercury.*—Patent dated October 19, 1858.—This bottle is made of malleable cast-iron, as follows: A pattern is first made of the desired form from which the exterior is moulded; but instead of so forming the core as to vent only at the top through the neck, the vent or core is passed clear through, leaving a small hole through the bottom of the bottle. The bottle thus cast is filled with carefully prepared decarbonizing compound with which it is also surrounded, and is then submitted to a heated annealing furnace in the usual way.

Claim.—The mercury bottle formed and composed of malleable cast-iron, substantially in the manner and for the purpose set forth.

No. 22,152.—J. L. ALBERGER, of Buffalo, N. Y.—*Improvement in Kettles for Trying Oils.*—Patent dated November 30, 1858.—This invention relates to the construction and arrangement of a boiler or tank, surrounded by a steam jacket, or having steam introduced in its interior and made to revolve upon its bed or cradle, for the purpose of emptying it of its contents, and used with or without a condensing apparatus, the object being to boil or try fats, oils, &c., by direct or indirect action of steam.

Claim.—A horizontally placed cylindrical boiler or tank, surrounded by a steam jacket, or having the steam admitted directly into it, when said boiler or tank is capable of being turned over in its cradle and have all its contents run out at the man hole, as described ; and this is claimed, whether said boiler be used in connexion with a condenser or without it, substantially as set forth.

No. 22,406.—LUTHER ATWOOD, of Brooklyn, New York.—*Improvement in Manufacture of Pyrogenic Oil.*—Patent dated December 28, 1858.—This invention is a new method of manufacturing oils from bitumens, resin, schist, and fatty bodies that yield pyrogenic oils, and that are soluble, or in part soluble, in the products of their decomposition, and that melt or intumesce during decomposition ; also coal, peat, wood, and other substances yielding pyrogenic oils which may be worked by this process.

Claim.—Forming oleaginous vapors from substances yielding pyrogenic oils, by the action of the heat of a properly regulated current of products of combustion passing over and above the surface of the mass operated on, with or without the aid of external heat, substantially as described and for the purposes set forth.

No. 21,805.—LUTHER ATWOOD, of Brooklyn, New York.—*Improvement in Extraction of Volatile Oils, &c., from Coal.*—Patent dated October 19, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first, the gradual and progressive formation at a comparatively low temperature of oleaginous vapors, and oil from coal, or other substances yielding pyrogenic oils, by the gradual and progressive action of the heat of products of combustion upon and through the mass substantially as described, and substantially for the purposes set forth.

Second. The immediate removal of the oleaginous vapors and volatile products of decomposition from the point of formation away from further action of the heat conducing to and resulting from their production, through the remainder of the mass and apparatus, by means of a properly regulated current of products of combustion, substantially as described.

Third. Condensing the liquid volatile products of distillation within the body of the distilling tower, and during the continuous distillation of the solid materials, substantially as described.

Fourth. Obtaining crude oil from coal, and other solid substances yielding pyrogenic oils, by the combined and successive operation of the above-mentioned methods of treatment.

No. 20,205.—WILLIAM G. HUYETT, of Williamsburg, Pennsylvania.—*Improvement in Paint Compounds.*—Patent dated May 11, 1858.—To seventy parts of calcined iron ore is mixed twenty parts of burnt limestone and ten parts of clean charcoal, or mineral coal; they are all ground together into a fine powder; the powder is then mixed with linseed oil and reduced to proper consistency for painting, when it forms a beautiful brown-colored paint.

The inventor says: I do not claim the use of calcined iron ore, lime, or coal, except when compounded so as to form a paint as described by me. To the best of my knowledge and belief no such paint compound has ever been known or used.

I *claim*, as a new article of manufacture, a paint compound composed of ground calcined iron ore, lime, and carbon, in about the proportions specified.

No. 19,014.—A. C. CHURCH, of Union City, Michigan.—*Improvement in Paint Vehicles.*—Patent dated January 5, 1858.—The component parts of this invention and their proportions are as follows: Linseed oil, one gallon; soft soap, one gallon; distilled rain water, one gallon; oil of turpentine, four (fluid) ounces; gum mastic, one-fourth of an ounce; caoutchouc, one-eighth of an ounce.

The compound is made in the following manner: The oil of turpentine, gum mastic, and caoutchouc, are put into a well corked bottle and well shaken or agitated together several times a day for three or four days, and then allowed to rest for a short time. When the compound liquid solution of gum mastic and caoutchouc has been thus obtained, the soft soap is to be mixed with the distilled rain water, and the mixture heated over a fire till it boils, stirring it well during the heating. The linseed oil is also placed on the fire and heated to the boiling point.

Claim.—The compound for mixing paints, composed of the within specified materials, combined in the manner substantially as and in about the proportions set forth.

No. 20,993.—J. S. D'ORSEY, of New York, N. Y.—*Improvement in Paints.*—Patent dated July 27, 1858.—This paint is intended to be used as a substitute for oil paint in painting the plaster, walls, and ceilings of buildings, and other plaster work. The claim shows its composition.

Claim.—The paint, composed of carbonate of lead or oxyd of zinc, ground in oil, mixed with carbonate of lime, and reduced by the compound vehicle specified, either with or without the addition of pulverized sand or sulphate of baryta and sulphate of copper.

No. 21,810.—JAMES H. BEARDSLEY, of New York, N. Y.—*Improvement in Composition for Paints.*—Patent dated October 19, 1858.—The inventor says: To produce white paint I slake forty-six pounds of lime in ten gallons of water in a closed vessel, to exclude air. When the lime is slaked, which will take about two hours and a half, I remove the cover and add and thoroughly mix therewith seven pounds of bleached or fair brown sugar, prefering the former. After

this I add and mix one quart of the best New Orleans molasses, which should be previously boiled for ten or fifteen minutes, and this should be added while at or near the boiling point. I next add and stir in fifteen pounds of whiting and five pounds of dry oxide of zinc, both in fine powder. And, lastly, I add three quarts of salt and ten ounces of refined borax, and, when well stirred to incorporate all the ingredients, the whole is allowed to stand over night and then run through an ordinary paint mill. The composition then only requires to be reduced to the proper consistency with water to be used with the brush.

Claim.—The composition of matter, substantially such as described, to be used alone as a white paint, or in admixture with pigments for colored paints, as set forth.

No. 22,015.—Thomas G. Chase, of Philadelphia, Pa.—*Improvement in Rendering Paper and other Fabrics Incorrodible.*—Patent dated November 9, 1858.—The nature of this invention consists in the application of paraffine and naphtha to paper, and other similar fabrics, by which it is rendered proof against the corrosive action of caustic alkali.

Claim.—The inventor says: I am aware that other compositions of matter have been used to protect caustic alkali from the action of air and moisture, such as resin and beeswax, for which a patent was obtained by George Thompson, October 21, 1856. I do not claim any of these, and am also aware that a patent has been granted in England to William Benson Stones, for the use of paraffine to render textile materials impervious to wet, (volume 55, page 339, Mechanics' Magazine.) I do not claim the use of it for this purpose.

But I claim the application of paraffine, either alone or in combination with naphtha, for the purposes described, as set forth, so as to secure paper and other fabrics from the corrosive action of caustic alkali, in order that it may be put up securely in small parcels.

No. 19,657.—Anson Taylor, of Brooklyn, New York.—*Improvement in Preparing Silk for Use with Felting Substances.*—Patent dated March 16, 1858.—The nature of this invention consists in exposing silk fibres to sufficient heat to partially destroy their strength and tenacity, and render the same adapted to use with fur, wool, or other felting material in the carding, picking, bowing, or blowing operations, in preparing the fibrous material, and to the subsequent operations of shrinking, planking, and finishing the felted goods.

The inventor says: I do not claim the use of steam, or a moderate degree of heat in the operation of preparing fibrous materials for carding, the same operation simply to soften the fibres temporarily.

But I *claim* the method described of preparing silk fibres for use with fur or other felting material, substantially as and for the purposes specified.

No. 22,185.—Nathan B. Marsh, of Cincinnati, Ohio.—*Improvement in Preservation of Flesh for Food.*—Patent dated November 30, 1858.—The nature of this invention consists in the process, or any essential part thereof described for converting live stock, such as beef

cattle, hogs, and sheep, or the hams or rounds thereof, into cured and smoked meats for the market, so that such live stock may be slaughtered in any numbers, in any climate in any season of the year, in a much improved style.

The inventor says: I *claim*, first, preparing carcasses for injection, and injecting the same in the manner set forth.

Second. I also claim injecting or transmission of the saline solutions at a temperature below or above the freezing point, or thereabout, as set forth, so that the flesh may be cooled from within outward.

Third. I claim the injection of portions of the carcasses, as well as the whole beast, with the solutions indicated, in the manner set forth.

No. 22,132.—Charles Francis Leopold Oudry, of Paris, France.—*Improvement in Preserving Surfaces of Cast or Wrought Iron.*—Patent dated November 23, 1858.—The claim explains the nature of this invention.

The inventor says: I *claim*, firstly, the employment of a varnish, or of successive varnishes, insulating, metallizing, and intermediary between the object to be coated with copper (whether the same be metallic or non-metallic) and the protecting copper itself, all or part of said varnishes being composed of certain metallic substances, united with fat or essential oils, and with gummy, resinous, bituminous, or asphaltic substances, substantially as described and for the purposes set forth.

Secondly. The coating of all kinds of objects with copper, by the employment of one or several varnishes in succession, previous to the galvanic coppering obtained directly in a bath of sulphate of copper, *i. e.* without the intervention of a bath of cyanide of copper, substantially as described.

No. 22,249 —John Warren Hartnett, of Cincinnati, Ohio.—*Improvement in Preventing Incrustation of Steam Boilers.*—Patent dated December 7, 1858 —The nature of this invention consists in introducing into the steam boiler oleaginous matter in a fluid state. For this purpose any suitable oil is used. It further consists in a novel method of using the oil in the boiler to prevent its forming a dense coating, retarding the evaporation, and to facilitate removal of deposit from the boiler at any and frequent intervals without arresting work, or stopping continuous generation of steam.

Claim.—The means and manner specified of injecting oil or other fatty matter, in a liquid state, into the boiler, for the purposes set forth, whereby the said oil or fatty matter is fed to the boiler simultaneously, and in connexion with the water, as described.

No. 19,036.—Nicholas Mary Ainé, of Philadelphia, Pennsylvania.—*Improvement in the Process of Dyeing Silk, &c* —Patent dated January 5, 1858.—This improvement consists in first submitting the silk in the piece to the action of steam, and then passing it over a series of rollers D E F and A N covered with felt, which revolve partially immersed in troughs, and which contain a solution of dye

heated by steam, and then passing the goods into or through a chamber, where it will be submitted to the action of steam again. The piece of goods is kept distended or stretched laterally during the entire operation by rollers, and the felt-covered rollers are given such a velocity of revolution that they shall rub against the goods at a velocity from two to four or five times greater than the velocity at which the fabric or piece of silk moves.

Claim.—Submitting the fabric to the combined action of steaming and to that of friction-rollers, during or after the dyeing process, as described.

No. 19,948.—John Preston, of Dorchester, Massachusetts.—*Improvement in Process of Extracting Fat Oils from Seeds.*—Patent dated April 13, 1858.—The nature of this invention consists in, or is based on, the principle of engaging the other proximate principles with which the oils and fats are naturally associated in a solvent, for which they exert a superior attraction.

Claim.—The employment of either molasses or a sugar syrup under circumstances and in manner substantially as set forth.

No. 20,048.—Edward Deiss, of Paris, France.—*Improvement in Processes for Extracting Fatty Matters.*—Patent dated April 27, 1858.—Patented in France, November 13, 1858.—A represents a vessel containing the sulphuret of carbon; it is made of metal, and is provided with two stop cocks, one at the bottom, *a*, and the other on the top, *b*. This vessel is tightly closed by means of the cover E; through the cover passes the pipe K, reaching to the bottom of the vessel. This pipe is cut out somewhat at the lower end, and communicates through the upper part with the still B. The pipe F, provided with a stop cock, is designated to supply the amount of sulphuret lost during the operation. From the cover E rises a pipe, G, with a stop cock, *f*, which communicates with the air-pump; next to tube G is another pipe, H, and stop cock *g*, to carry off the air from the reservoir A.

The inventor says: I declare that I do not in any way confine myself to the particular construction and arrangement of apparatus in connexion therewith.

But I *claim* the extraction of oils, grease, fats, and resins from wool cloth, bones, oleaginous seeds, refuse, and other substances containing the same, whether naturally or artificially impregnated, by passing through them mechanically sulpuret of carbon, in the manner substantially as described.

No. 20,353.—Silas P. Knight, of New York, N. Y.—*Improvement in Production of Electrotpye Plates.*—Patent dated May 25, 1858.—The wax mould or matrix is made in the usual manner and coated with plumbago; it is then placed upon a table with the face upward, and a saturated solution of blue vitriol or sulphate of copper is sprinkled upon it, moistening nearly the entire surface. Upon this is scattered from a fine sieve, or muslin bag, metallic dust or fine powder. The dust being sifted upon the plate, is then dis-

tributed as uniformly as possible over its surface by means of a flat camel's hair brush. The mould is then cleansed by immersion in pure water, or by allowing the water to flow over it. It is then placed in the battery and the connexion made as usual.

The inventor says: I do not claim the deposit of a thin metallic coat or film upon the moulds previous to immersing them in the battery.

But what I *claim* is the treatment of the plumbago-coated moulds with a solution of the sulphate of copper and the dust of iron, by which a metallic film is produced as described.

No. 20,760.—Ethan Campbell, of Cambridgeport, Massachusetts, assignor to Henry Thayer, of said Cambridgeport.—*Improvement in Apparatus for Rectifying.*—Patent dated June 29, 1858.—The nature of this invention consists in so arranging and combining a distillatory apparatus as to perform all operations of distilling, rectifying, and evaporating, in a simple manner and in a vacuum, thus gaining a lessened expense for heat, in rapidity of production, and purity of product.

The inventor says: I do not claim that the pan, condenser, column, or receivers are of my invention.

But I *claim* the general combination of the different parts, with the attachment of the air-pump so as to produce the effect desired.

I claim combining with the rectifying column B the vertical discharge pipe *j*, and the series of horizontal pipes which connect it with the column B, as set forth.

No. 20,967.—Gardner Waters and John W. Harnett, of Cincinnati, Ohio.—*Improved Apparatus for Rectifying.*—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

The inventors say: We do not of course claim the principle of continuous distillation, nor any of the various modes by which Pisterious, Derosne, Coffey, and others have rendered its practical application more and more simple and easily regulated. Neither do we claim the beer and spirit columns, or the general arrangement and mode of operating Coffey's apparatus.

But we *claim*, first, the use of solid plates *a*, with bent pipes *e*, or their equivalents, instead of perforated plates in the beer column, in the manner and for the purposes set forth.

Second. The use of the exhaust steam regulator in distillation, by this or other apparatus, whereby steam of any degree of tension may be taken from the boiler and reduced to any less desired uniform pressure, and whereby the exhaust steam from engines may be regulated in like manner, using the exhaust steam from boilers, together or separately as may be desired, in the manner and for the purposes set forth.

Third. The combination of the beer and spirit columns A and B with the exhaust steam regulator, with or without the whistle valves, acting as described and for the purposes set forth.

No. 20,938.—Gustavus Cuppers, of College Point, New York.—*Improvement in Manufacture of Hard Rubber Goods.*—Patent dated July 20, 1858.—In describing his improvement the inventor says: In the first place I prepare the India rubber or gutta percha for hardening in the usual manner, and place it in the mould made of tinfoil, or in tin or cast brass, or pressed tin, or any other material which moulds are made of. I then subject the same to the action of steam or hot air, or heat of any kind, during a period of from one-half an hour to three hours; the length of time will depend upon the proportion of sulphur mixed with the India rubber.

The inventor says: I wish to have it distinctly understood that I do not claim as my invention the heating or curing process, as it is called, nor the combination of India rubber and gutta percha with sulphur, nor any other combination already patented and described.

But I *claim* the improvement in the hardening or curing process of caoutchouc or India rubber, and of gutta percha, by which articles wares, goods, and merchandise may be manufactured into any desired size, form, or shape, substantially as described.

No. 22,265.—Hiram L. Hall, of Beverly, Massachusetts, assignor to The Beverly Rubber Company.—*Improvement in Manufacture of Vulcanized Rubber Goods.*—Patent dated December 7, 1858.—The claim explains the nature of this invention.

Claim.—The improvement in the manufacture of rubber goods of every description, which consists in combining fibrous materials with waste vulcanized rubber rendered soft and plastic, in the manner described, whether such fibrous materials be such only as are found in old or waste vulcanized goods or fabrics, or new fibrous materials added to the rubber compound.

No. 22,218.—Thomas J. Mayall, of Roxbury, Massachusetts, assignor to Himself and George N. Davis, of Boston, Massachusetts.—*Improvement in the Manufacture of Hard Rubber.*—Patent dated November 30, 1858.—In this invention one pound of India rubber is incorporated by grinding with 5 ounces sulphur, to which is added gradually, as the grinding proceeds, 1 ounce of olive oil, the whole being thoroughly mixed and vulcanized in the usual manner.

Claim.—The use of olive oil, when incorporated with other materials, in the manufacture of hard vulcanized rubber, as described, for the purpose specified.

No. 19,172.—Hiram L. Hall, of Beverly, Massachusetts, assignor to The Beverly Rubber Company.—*Improvement in Restoring Waste Vulcanized Rubber.*—Patent dated January 19, 1858.—The claim of the inventor explains the nature of this invention.

Claim.—Boiling waste vulcanized rubber in water, after it has been reduced to a finely divided state by grinding, for the purpose of utilizing the same, by restoring it to a plastic state, fit to be again used in the manufacture of India rubber fabrics, as set forth.

No. 20,678.—Francis Baschnagel, of Beverly, Massachusetts, assignor to The Beverly Rubber Company.—*Improvement in Restoring Waste Vulcanized Rubber.*—Patent dated June 22, 1858.—The claim will explain the nature of this improvement.

Claim.—The application of heat from 150° to 600° Fah to waste vulcanized rubber, with or without immersing it in cold water or any other cooling fluid, as specified, for the purpose of restoring the same, so that it may be used again in the manufacture of India rubber goods and substances, hereby expressly disclaiming all and every right to the application of artificial heat to new rubber vulcanized or not vulcanized, and to the application of heat to rubber, in any manner and for any purpose except as above set forth.

No. 22,217.—Hiram L. Hall, of Beverly, Massachusetts, assignor to The Beverly Rubber Company.—*Improvement in Restoring Waste Vulcanized Rubber.*—Patent dated November 10, 1858.—The claim explains the nature of this invention.

Claim.—The method of restoring waste vulcanized rubber by grinding it to a fine or powdered state, or otherwise, then submitting the same in a close or proper vessel to the action of steam direct upon the rubber, or in connexion with water, for the space of forty-eight hours, more or less.

No. 20,242.—Hiram L. Hall, of Beverly, Massachusetts, assignor to The Beverly Rubber Company.—*Improvement in Utilizing Waste Vulcanized Rubber.*—Patent dated May 11, 1858.—The nature of this invention will be understood by reference to the claim.

The inventor says: I do not claim the mixing of asphalt, coal tar, resin or shellac, or other similar substance with native rubber, nor with vulcanized rubber previously dissolved by means of essential oils or other solvents.

But I *claim* the restoring of waste vulcanized rubber by grinding it and mixing it with asphalt, coal tar, resin, pitch, shellac or other similar substances, so that it can be used again in the manufacture of vulcanized rubber fabrics, and be as serviceable, or nearly so, as when the fabrics are made with the use of the native rubber.

No. 22,038.—Richard Solis, of New Brunswick, New Jersey.—*Improvement in Machinery for Manufacturing Shirred Goods.*—Patent dated November 9, 1858.—This invention relates more particularly to improvements in machinery for making that kind of elastic fabric known as shirred goods, in which threads or strips of india rubber in a distended state, are inclosed between two lamina of cloth, coated with india ruber or other cement, and cemented to the elastic threads or strips, and to each other between the said threads or strips.

The inventor says: I *claim,* in combination with the rollers or equivalent means for cementing the two lamina of cloth, and the rollers or equivalent means for keeping the united lamina distended, and for moving them as described, the employment of a bar, or the equivalent thereof, over which the united lamina are drawn to form the turned or lapped selvages, as described.

And I also claim, in combination with the selvage bar, or its equiv-

alent, and the means described for moving and keeping the lamina distended, or equivalents therefor, the employment of pins for turning the edges in forming the turned or lapped selvages, as described.

No. 22,330.—WILLIAM H. MANNING, of Owego, New York, assignor to Himself and LUCIUS H. OLMSTED, of said Owego.—*Improvement in Machines for Cutting Soap.*—Patent dated December 14, 1858.—The claim and engraving explain the nature of this invention.

Claim.—The machine described for converting block and slab soap into bars and cakes consisting substantially of the frame or series of cutters, the guiding and supporting bars, and the presser or follower.

No. 19,754.—DALRUMPLE CRAWFORD, of Toronto, Canada.—*Improvement in Manufacture of Soap.*—Patent dated March 30, 1858. The claim will explain the nature of the composition.

The inventor says: I do not claim mixing flour, corn meal, starch, or vegetable matter generally with soap.

I do not claim making soap with a fat or oil and an alkali, with or without rosin.

But I *claim* mixing with soap the refuse from indian corn after it has been subjected to the action of alkali in extracting the starch, as substantially set forth.

No. 19,667.—CAMPBELL MORFIT, of Baltimore, Maryland.—*Improved Process of Making Soap.*—Patent dated March 16, 1858—The nature of this invention will be understood by reference to the claim.

Claim.—The saponification of red oil, or red acid oil and fat acids generally, by means of powdered or dry carbonates of soda, as kelp, troma, sal-soda, soda ash, bi-carbonate of soda, &c., and converting them into toilet and laundry soaps, in the manner substantially as set forth in the specification.

No. 19,960.—C. D. VAN ALLEN and SAMUEL AVERY, of Baldwinsville, N. Y.—*Improvement in Soda Fountains.*—Patent dated April 13, 1858.—The inventor says: In order to make soda-water we put a solution of supercarbonate of soda in one of the reservoirs J, and tartaric acid in solution in the other. We then cause the piston B of the pump to rise, which draws both of the solutions into the pump chamber P. On depressing the piston rod B, the solutions are prevented by the valve M from returning to the reservoirs J J, and are forced through the pipe O and E into the fountain or generator F, and prevented from returning to the pump by the valve N.

Claim.—The apparatus described—that is to say, the combination of the reservoirs J J, (the one an acid, the other an alkali, in separated solutions,) pipes K K, valve M, pump chamber P, elastic cover C, aperture O, valve N, valve cap D, pipe E, and generator F, when these several parts are constructed and relatively arranged with respect to each other, as set forth for the purpose specified.

No. 20,382.—E. D. WHEELER, of Murfreesboro, Tennessee.—*Improvement in Portable Soda-Water Apparatus.*—Patent dated May 25, 1858.—The object of this invention is so to charge the generator

with the substances producing the carbonic acid gas that the gas shall be slowly and progressively evolved, and to be passed into the fount gradually in combination with a peculiar construction of apparatus, whereby a purifier is dispensed with.

Claim.—Inclosing the charge in a long fibrous case or bag A, when said case or bag is used in combination with a soda-water apparatus, constructed and operating as described.

No. 22,460.—Samuel T. Stratton, of Philadelphia, Pa.—*Improvement in Manufacture of Starch.*—Patent dated December 28, 1858.—This invention consists in steeping corn or other material, whole or crushed, in an alkaline or caustic alkaline liquor, at the strength of one or more degress alkaline hydrometer, and at a temperature of from seventy to one hundred and thirty degrees Fahrenheit.

Claim.—Steeping the material from which starch is extracted (either whole or crushed) in an alkaline or caustic alkaline liquor, of a suitable strength, and artificially heated to a temperature of from seventy to a hundred and thirty degrees Fahrenheit thermometer, as specified.

No. 20,966.—J. Von Schwarz, of Nuremberg, Bavaria.—*Improvement in Manufacture of Steatite Articles.*—Patent dated July 20, 1858.—The claim will explain the nature of this invention.

Claim.—Preparing gas burners or other articles of manufacture from the natural substance known as steatite, in such a manner as to give said articles an intense degree of hardness, and also a capacity to resist high temperature, substantially as set forth.

No. 22,126.—Louis Lefebore, of New Orleans, Louisiana.—*Improvement in Furnaces for Evaporating Sugar Juices.*—Patent dated November 23, 1858.—The claim and engraving explain the nature of this invention.

Claim.—In combination with the fluted outer surface of the kettle forming the masonry constituting the opposite face of the flue, with corresponding fluting or corrugations, so as to surround the kettle with an undulating passage for the products of combustion, substantially as and for the purposes set forth.

No. 22,307.—F. Roy, of Parish of St. Bernard, Louisiana.—*Improvement in Furnaces for Evaporating Sugar Juices.*—Patent dated December 14, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim broadly and of itself the open setting of kettles.

But I do *claim* the setting of sugar kettles with the system of radial braces *i i*, so situated as to divide the space around the kettle into two apartments, communicating by the openings *o*, when these upper chambers communicate with each other and by flues X, with a common flue *g*, the whole operating substantially as and for the purpose set forth.

No. 19,515.—Honoré Roth, of Iberville Parish, Louisiana.—*Improvement in the Method of Setting Sugar Kettles.*—Patent dated March 2, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—Setting the kettles known as the "battery" and "flambeau" over separate furnaces, in communication respectively with the kettles denominated the "syrup" and "propee," and both communicating with the "grande," or first kettle of the series on opposite sides of a division wall reaching nearly to the bottom of said kettle, substantially as and for the purpose set forth.

No. 21,786.—J. C. Tucker and L. Lanzweert, of San Francisco, California.—*Improvement in the Manufacture of Sugar.*—Patent dated October 12, 1858.—The nature of this invention consists in clarifying with the hydrate of alumina in that particular state of precipitation, which state alone yields to animal coal its special properties, and which differs in effects from the precipitates obtained in the usual known manner.

The inventors say: We do not claim the hydrate of alumina as usually found in the trade, in nature, as claimed to be prepared dry by the Messrs. Oxyland, or precipitated by ammonia.

But we *claim* the process of decolorizing and defecating saccharine liquid and vegetable juices, and application in the manner described of hydrated alumina, cream of alumina, prepared as set forth.

No. 20,347.—Theodore A. Hoffmann, of Beardstown, Illinois.—*Improvements in the manufacture of Dextrin and Sugar.*—Patent dated May 25, 1858.—The claim explains the nature of this invention.

The inventor says: I disclaim the separate action of steam and acids for converting starch, corn, or other grain into dextrin, or sugar, and alcohol therefrom by the usual boiling point of one atmospherical pressure.

But I *claim* the combination of steam and acids for converting starch, corn, or other cereals into dextrin gum, or sugar, when said grain is subjected to the action of diluted acids, and the temperature of the mass is elevated to 225° or 300° Fahrenheit.

No. 19,743.—C. E. Bertrand, of Williamsburg, N. Y.—*Improvement in Sugar Mould Carriages.*—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The sugar mould carriage constructed and arranged to operate substantially in the manner described, that is to say, the platform in combination with stationary pins, supported by two wheels and a caster, the standard of which bears against and pivots in the upper or brace plate, the latter being composed of semi-circular arms, holding, in connexion with guard chains or bars, the conical moulds, in the manner and for the purposes set forth.

No. 20,655.—Alfred Monnier, of Camden, N. J.—*Improvement in treatment of Metallic Sulphurets.*—Patent dated June 22, 1858.—The substance mentioned in the claim is composed as follows: Pul-

verize the native sulphuret or arsenic-sulphuret of iron, and mix it thoroughly with 33 to 75 per cent. of its weight of either caustic soda, carbonate of soda, sulphuret of sodium, sulphate of soda, or with corresponding compounds of potash, sulphate of iron, sulphate of baryta, sulphate of strontia or zinc. To this compound water is added to keep it moist, and kept moist eight or ten days, when it is moulded into blocks; these blocks must be heated before use to expel the water.

Claim.—The process of obtaining oxides of iron, copper, cobalt, nickel, zinc, or other oxides, from their native sulphurets, or arsenic-sulphurets, by mixing them in a state of powder with the substance as described, in order to expel all or nearly all the sulphur and arsenic.

No. 19,991.—Isaac Gattman, of Philadelphia, Pa.—*Improvement in treatment of Sulphuretted Ores.*—Patent dated April 20, 1858.—The claim explains the nature of this invention.

The inventor says: I am aware that caustic carbonate, and sulphate of potash or soda, have been used before in the working of the native metallic sulphurets, and I therefore do not claim their use as such exclusively.

But I *claim* the use of sulphuric acid in connexion with the hydrate, carbonate, or sulphate of potash or soda, or with any compound thereof, in the mode of working the native metallic sulphurets, substantially in the manner set forth and for the purpose specified.

No. 19,729.—Damon R. Averill, of Pulaski, N. Y., assignor to James F. Davis, of said Pulaski.—*Improvement in Composition for Varnishes.*—Patent dated March 23, 1858.—The claim will explain the nature of the composition.

Claim.—The described composition of matter, consisting of water and acetate of lead, with spirits of turpentine and coal tar, for the purpose of making a cheap, quickly-drying, and superior varnish, substantially as set forth.

No. 21,284.—John Trageser, of New York, N. Y.—*Improvement in Apparatus attached to Steam Coils in Vats.*—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Providing ratchets *l l* on the peripheries of the couplings and palls *j j* attached to the stationary supply and escape pipes *a b* to prevent the working loose of the coupled joints by the swinging of the coil.

No. 19,771.—Henry Hannen, of Dubuque, Iowa.—*Improvement in Apparatus for Manufacturing White-Lead.*—Patent dated March 30, 1858.—The nature of this invention will be understood from the claim and engravings.

Claim.—The pipe G, with its branch pipes J and stop cocks *n*, the pipes C and E, and the diffusing pipes B and *a*, and their respective stop cocks *e* and e^1, in combination with the valves or stoppers *g* and *l*, the whole being arranged and operated in the manner substantially

as described, for the purpose of exposing the metal to the action of the different agents employed, alternately and successively.

No. 20,731.—Robert Rowland, of New York, N. Y.—*Improvement in Apparatus for Manufacturing White-Lead.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The combined manufacture of vinegar and white-lead, and for the purpose of carrying on both simultaneously and without injury to the one or the other, namely, fitting the tops of vinegar vats D (when said vats are placed in a room below the corroding room) to the floor C of the corroding room, substantially as above described, in combination with covers E, provided with openings *a* and valves *d*, or any equivalent means for regulating the supply of acid, or altogether closing up the communication between the interior of the vats and the corroding room whenever necessary, all substantially as described and represented in the drawings.

No. 22,036.—Benjamin F. Smith, of New York, N. Y.—*Improvement in Manufacture of White-Lead.*—Patent dated November 9, 1858.—This improvement has for its object the preparing of a better form for the action of the acids on the metallic lead, and at the same time to simplify and expedite the process. The claim and engraving will give the reader an idea of the nature of this invention.

The inventor says: I *claim* preparing the metallic lead for the purposes of perfect corrosion, by exposure to the action of acids or other substances, in "spangles" of the size and configuration substantially as described.

I also claim preparing the metallic lead for the purposes of perfect corrosion by exposure to the action of acids or other substances, by causing melted lead to drop in a finely divided stream or streams upon a corrugated cylinder, or its equivalent, revolving or moving so as to throw off solid "spangles" of more or less the form and thickness described.

No. 21,915.—John Wilkins, of Troy, New York.—*Improvement in Apparatus for Cooling Worts.*—Patent dated October 26, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: What I *claim* is the cooling apparatus as described, with their metallic operating plate placed horizontally and fastened so as to be easily removed for the purpose of cleaning, together with the specific arrangement of ribs and joists, or their equivalents, operating as and for the purposes set forth.

Second. I claim the distributing and collecting troughs, with their respective ice water and waste water troughs at the ends of the operating plate.

Third. I claim the combination of the said parts, namely, the operating plate with its joists, ribs, modes of fastening, troughs at each end, and regulating valves as described, or of parts substantially the same, when they are employed as a cooling apparatus in the manner set forth.

V.—CALORIFICS.

No. 20,304.—Willard G. Ruggles, of Worcester, Mass.—*Improved apparatus for Baking and Cooking.*—Patent dated May 18, 1858.—Box A^1 is constructed of either cast or sheet metal, from half inch to two inches deep, or more according to the size of the oven to which it is to be applied, and about as wide and long as the oven that is to receive it. This box, or flue A A^1 is to be furnished with partitions D, which may be varied in making the flue as may be found best calculated to spread the heated current to every part of the flue; in one side of the oven are formed openings E, furnished with slides or gates C to close them; these openings agree with the openings F left in the sides of the flues. G represents the opening between the top of the stove and top of the oven where the heated air &c., from enters.

Claim.—I claim the arrangement of the flue or flues with the slides and openings, when constructed as described.

No. 19,636.—Joseph Hollely, of New York, N. Y.—*Improvement in Blow Pipes.*—Patent dated March 16, 1858.—The boiler or generator B is placed on the frame A, so as to admit the application of a lamp C beneath it, for the purpose of heating the liquid therein, in order to produce the steam. On another part of the stand another lamp D is so situated as to receive the jets of steam through its flame to create the necessary heat. To insure safety and the desired variation of pressure, a safety valve E, is required to be attached to the boiler.

The inventor says: I disclaim all arrangements of blow pipes substantially different from that above described.

But I *claim* a blow pipe provided with a faucet, I, spigot, L, and jet pipes M N, constructed and arranged as described, in connexion with safety valve E, arranged and operating in the manner set forth for the purposes specified.

No. 20,546.—C. S. Buchanan, of Ballston, N. Y.—*Improvement in the mode of Heating Rotary Boilers.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* combining and surrounding a cylindrical boiler made to revolve upon its axis, with one or more stationary envelopes, made of fire brick, or any other equivalent material, arranged at such distance from said boiler, as to allow the fire and other products of combustion to pass around the boiler, in the manner and for the purposes specified.

I also claim arranging the stationary envelopes around a rotary boiler, in such a manner as to leave both the ends and the middle of the said boiler uncovered, for the respective purposes of protecting the journals at the ends of the boiler from heating, and of allowing access to the man-hole as specified.

Also in combination with a boiler constructed and operating in the manner described, I claim two furnaces arranged as described symmetrically in relation to the boiler, whereby the heating of said boiler can be effected in a more economical and uniform manner.

No. 21,085.—WILLIAM RESOR, of Cincinnati, Ohio.—*Combined Broiling Furnace and Cooking Stoves.*—Patent dated August 3, 1858. The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the described arrangement of the grates A and B, passages, C F G, and damper *c*, or their equivalents, operating as set forth, to temporarily connect the charcoal grate with the main fire so as to ignite its contents and afterwards disconnect them so as to burn independently.

No. 21,297.—H. W. HARKNESS, and WILLIAM A. FERRY, of Bristol, Connecticut, assignors to Themselves and JOSEPH SIGOURNEY, of said Bristol.—*Improved Apparatus for Broiling, Toasting, &c.*—Patent dated August 24, 1858.—The nature of this invention consists in constructing a rotary support to hold meat, bread, &c., operated by mechanical movements, so as to continually revolve or change the surface before the fire.

Claim.—The above described broiling and toasting apparatus, consisting of case C, clock movements D, arms B, spindle A, and pins *c*, arranged and operating substantially in the manner and for the purpose set forth.

No. 20,305.—CHARLES W. SMITH, of Evans, New York.—*Improved Devices for Regulating by Electricity the Issue of Gas from Burners.*—Patent dated May 18, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I wish it to be understood that I do not claim the use of the attraction and repulsion of temporary and permanent magnets, to obtain an increased for actuating the supply cock.

Neither do I claim the use of a pawl or ratchet, or their equivalents, for the purpose of controlling the supply of gas, and consequently the size of the flame.

But I *claim* the combination and use of a permanent and temporary magnet, or of two temporary magnets, one fixed and one vibrating, with a pawl and ratchet, situated substantially as described upon the supply cock of a gas burner, or series of burners.

I claim also the use of a thin slip of metal, or its equivalent, to deflect a portion of the jet of gas upon an ignited platina coil, situated entirely without the jet, as described.

No. 21,893.—ALONZO M. MACE, of Springfield, Massachusetts.—*Improved Hydro Carbon Vapor Burner.*—Patent dated October 26, 1858.—The nature of this invention consists in providing siphon-shaped vaporizing tubes, with a chamber connected and communicating with the upper part of the tube and over the flame of a burner, the heat of which produces the evaporation.

Claim.—The use of the chamber A connected with vaporizing tubes

at the crown or upper part over the flame, the same being constructed substantially in the manner and for the purpose set forth.

No. 20,558.—Levi L. Hill, of Greenport, New York.—*Improvement in Manufacture of Burning Fluids.*—Patent dated June 15, 1858 — A full description of the compounds would require too much space to be given here.

The inventor says: I do not claim the mere mixture of tar and crude turpentine, nor the above method of making caoutchousine, nor any peculiarity in the form of my apparatus.

Neither do I claim the use of benzole or naphtha for carbonizing air or gas, for benzole alone, and benzole mixed with alcohol has been used for air, and naphtha for gas.

But I *claim* first, the use of caoutchousine for imparting greater volatility, as well as greater stability, to my compounds.

I wish to be distinctly understood as claiming the use of caoutchousine only in combination with the liquids described.

Second, I claim the liquids described as newbian oils, A B C D, having the composition and properties set forth, to be used singly or in such relative proportions and admixtures as may appear necessary to accomplish the purposes set forth.

No. 21,987.—Samuel Slocomb, of Cambridge, Massachusetts.—*Improvement in Candlesticks, &c.*—Patent dated November 2, 1858.—From the socket A descends a metal rod D which passes through the shank and into the base, being secured into the latter by a washer *f* and nut *g*.

Claim —As a new article of manufacture, a lamp stand having a metal socket, a glass shank, and a marble base, the whole being secured together by the rod D, as set forth.

No. 21,884.—Bernhard Kihlholz, of St. Louis, Missouri.—*Improvement in Chimney Caps.*—Patent dated October 26, 1858.—The inventor says: This machine prevents the wind from blowing the smoke back into chimneys and rooms. The cylinder shelters the cap and flange, and smoke-pipe is again sheltered by the cap above and by the flange below, so that the wind will pass the so protected smoke-pipe without being able to penetrate into the interior and drive the chimney. The cap being smaller than the flange, the wind will on the contrary promote the discharge of the smoke.

Claim.—The above described chimney smoke-regulator, consisting of the pipe F, deflector E, and cap D enclosed in cylinder C attached to cover A, the whole constructed and arranged substantially as and for the purposes set forth.

No. 22,112.—Charles Douglas, of Cleveland, Ohio.—*Improvement in Chimney Caps.*—Patent dated November 23, 1858.—A A A B is a frame of sheet iron, in the base of which there is an opening W, equal in size to the flue of the chimney on which it is to be placed. c c are valves hung on pivots *a*, at each end. D is a cap suspended on pivots *b*, attached to each end of which there is a hanger *d*. The

tops of the valves *c c* are linked to the hangers *d* with wires *e e*, in such a manner that when the valves move to the right or left the cap D is caused to rock over to the right or left.

Claim.—The frame A A A B, the valves C C, and the plan of linking the valves and cap together to give them their proper relative positions; all substantially as described, and for the purposes set forth.

No 21,115.—Frederick M. Butler, of New York, N. Y.—*Improved Wind Guard for Chimneys.*—Patent dated August 10, 1858.—This invention consists in the combination of a peculiar hood *f* with radial guards *d*, and an inner dish *e*, with or without a flange around the flue *a*, to be ventilated in such a manner that there is always more space for the escape of gases than there is for the ingress of wind or currents of air, no matter in what direction said air may strike the guard or cap.

The inventor says: I do not limit myself to the size or shape of my wind guard, whether round or polygonal, although I prefer the former or an oval.

What I *claim* is, the arrangement of the pipe *b*, radial guard *d*, inner disk *e*, and hood *f*, when in substantially the proportions and for the purposes specified.

No. 20, 662.—Levi H. Proctor, of East Saugus, Mass.—*Improved Apparatus for Sifting Coal Ashes, &c.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim the application of the sieve C to its vibrating frame, in manner so as to enable such sieve to be tilted or turned over laterally so as to discharge out of it such contents or matters as may not be small enough to pass through its meshes.

But I *claim* the arrangement of the inclined partition or chute R, and the two discharging openings K L, with respect to the sieve C, made capable of being revolved in manner substantially as set forth.

I also claim in combination with the discharging passages K L, arranged so as to lead out of the sieve chamber as described, a flap or valve M, so combined or connected with the turning sieve C as to operate with respect to the two discharging passages K L, substantially as described during the rotary or tilting movements of the sieve.

No. 19,481.—Aquila Bolton, of Port Carbon, Pa.—*Improvement in Machines for Breaking Coal.*—Patent dated March 2, 1858.—This invention consists in breaking coal and discharging it as fast as broken, by means of the combined action of a shaft or roller B, armed with teeth or cutters *d d*, and revolving in one direction, and a perforated hollow conical cylinder C, furnished with vertical slotted ribs or partitions *e e e e*, and revolving in an opposite direction to that of the shaft or roller B. This arrangement avoids grinding or crushing the coal as in other machines which have one breaking surface stationary and the other moving.

Claim.—The arrangement shown consisting of the perforated, internally ribbed or toothed conical chamber C *e*, C^1 e^1, revolving in one

direction, and the toothed shaft or roller B *d*, revolving in an opposite direction, for the purpose of breaking coal, as specified.

No. 19,429.—John H. Lyon, of Baltimore, Md.—*Improvement in Machines for Splitting Coal* —Patent dated February 23, 1858 —The manner of operating this machine is as follows: Power is applied to the shaft B, and communicated to the operative parts by means of the lever C, which mashes into bevelled gearing on cam D. This cam is loose on rod F, and revolves upon it. As it revolves it forces cam E to rise when cam E falls, and with it rod F and pick stock G, giving the required blow. The coal to be broken is fed on to the endless belt K, and supported above its surface by the spikes H^2.

Claim.—The arrangement for joint operation, in the manner and for the purposes described, of the spiked endless belt K, and the picks H H^1, driven by percussion, substantially as specified.

No. 21,559.—Joseph P. Evans, of Borough of Hazleton, Pennsylvania.—*Improvement in Machines for Washing Coal.*—Patent dated September 21, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: First. I *claim* forming a series of slits D^1, at the lower end of the corrugations C^2, next to the triangular openings C^3, so as to enable the thin pieces of slate to discharge themselves automatically through them, substantially as described.

Second. I claim the combination and arrangement of a tappet or tappets E^1 with and in the relation to the corrugated bottom C^2 of the chutes C and the slits D^1, and triangular openings C^3, at the lower ends of the same, over which they are suspended, as set forth; the said tappet or tappets being provided with adjustable weights G to regulate their resistance to the coal, substantially in the manner and for the purpose before described.

Third. I claim the arrangement of the upright pipe N and right angled perforated pipe P, at its lower end, in relation to the corrugated bottoms of the chutes described; said perforations being formed on the lower portion of its periphery, as stated, for subjecting the coal to a thorough washing in its descent, as set forth.

No. 19,175.—George E. Hoyt and Frederick Neshwitz, of Brooklyn, New York, assignors to George E. Hoyt aforesaid.—*Improvement in Coal Screens.*—Patent dated January 19, 1858.—The coal to be screened and separated by this invention is placed upon the upper screen C and a vibratory motion, lateral or otherwise, imparted to the box A.

The upper screen C contains the lump coal, which is conveyed by its spout G into a proper receptacle, while the smaller coal and dust pass through the screen C and fall upon the screen D and dust screen *b*, a portion of the dust and fine matter passing through the dust screen to the ground.

The screen D retains and delivers the next size to "lump," known as the "egg" coal. The next screen contains the "nut," and its

successor the "chestnut" size, while the lowest fire screen contains the "pea" size.

The inventors say: We do not claim any form of rotating coal screen, neither do we claim any arrangement which requires the dust to pass through a succession of screens before being finally separated from the coal.

But we *claim* preventing the dust and dirt which have been once separated from the coal from again mingling with it by means of the arrangement before described of the inclined screens C D E F, in combination with the dust sieves *b*; the whole constructed, arranged, and operating substantially in the manner set forth, and applied to the purposes specified.

No. 20,000.—Archibald McNeill, of Washington, D. C.—*Improved Combined Coal Scuttle and Ash Sifter.*—Patent dated April 20, 1858.—This invention consists in so constructing a coal scuttle that it can be converted into and used as a sifter of coal cinders and an ash pan.

The inventor says: I do not claim any of the parts described, separately.

But I *claim* a coal scuttle A provided with the extended scoop-shaped piece D, slide C, screen E, and cover G, all arranged and operating substantially and for the purpose as set forth and described.

No. 19,768.—T. Garretson, of Pottsville, Pennsylvania.—*Improvement in Machines for Slating Coal.*—Patent dated March 30, 1858.—This improvement consists in a certain construction of the sides of a rotary screen, and of the openings in these sides, which encourages and permits the escape through these openings of pieces of thin flat form, like the pieces of slate in broken coal.

Claim.—The construction of the sides of the screen and the openings *a a* therein, substantially as described, to bring the said openings outside of the guard bars B B, and give to the said openings a tangential direction, and to form tangential, or nearly tangential, conductors C C, leading to the said openings, as set forth.

No. 19,249.—James Howe and Charles W. Copeland, of Brooklyn, New York.—*Improvement in Damper Regulators.*—Patent dated February 2, 1858.—The inventors say: We are aware of the facts that elastic diaphragms, properly connected, have been used as dampers for regulators; that an elastic metallic vessel, of peculiar formation, has been employed for the same purpose; and also that a bent, highly elastic metallic tube has been and now is used as a steam-gauge, but in that instance the pressure does not alter the cross-section of the tube, but the degree of curvature in the length of the tube. And we also know that it has been proposed to employ a coil of tube as a gasket for a stuffing-box packing, such a tube being distended by fluid pressure. We therefore lay no claim to any such contrivances.

But we *claim* a flexible or flexible and elastic tube, closed at both ends, and in connexion with a steam generator, in combination with a presser-block and a bed-plate, constructed as a whole, substantially

in the manner specified, and applied to regulate the quantity of air delivered to a furnace, or as a pressure-indicator.

No. 22,144.—Charles A. Haskins and George Macardle, of New York, N. Y., assignors to Joshua A. French and Eliza C. Tyrrell, of Jersey City, New Jersey.—*Improvement in Grain and Fruit Dryers.*—Patent dated November 23, 1858.—The nature of this invention consists in the travelling-pipes, with adjustable connecting drums, through which the hot air is compressed and distributed over and through the grain or other substances; also the carriage and seats upon which the adjustable drums are supported, raised, and carried.

Claim.—The travelling-pipes and adjustable drums, and the form of the drums, through which the hot air is compressed and distributed over and through the material to be dried. Also, the carriage and seats upon which the drums are adjusted, supported, raised, and carried, in combination with the pipe-journal H, gear-wheel O, and chamber G, substantially as described.

No. 19,358.—Jacob A. Folts, of Buffalo, New York.—*Improved Fire-Box and Grate.*—Patent dated February 16, 1858.—In *figures* 1 and 2, A represents a cylinder with open ends, with a flange *a* turned on its inner perimeter at both ends of the cylinder; B are supports upon which the journals *b b* of an elliptical-shaped fire-box C rest and turn; the crank D is connected to one of the journals for this purpose; *d d*, &c., are the grate-bars, which are of a curved form, so that the flanges *c c* on the fire-box shall turn in close proximity to it.

The inventor says: I am aware that cylinders with grates attached to their ends, and revolving basket-grates, have been used. These I do not claim.

But I *claim* a revolving or turning fire-box, which is open at its opposite sides or ends, when used in combination with a fixed grate, substantially in the manner described and represented.

No. 22,162.—Lysander Button and Robert Blake, of Waterford, New York.—*Improvement in Fire-Engines.*—Patent dated November 30, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: What we *claim* as our improvements in fire-engines is placing the cylinders diagonally to the line of the rock-shaft, substantially in the manner and for the purposes set forth.

We do not claim contracting the air vessel at its base, or its point of attachment to the water-ways or channels of fire-engines.

But we do claim combining with horizontal water-way or channel *i* the air-channel *d*, divided into two compartments by the contraction *r*, at or about one-half the height of said air-chamber, above its base or point of attachment to said water-way, substantially in the manner and for the purposes set forth.

We claim, in combination with the hour-glass contraction of the air-chamber, the ring enlargement *s* of the rock-shaft, as set forth.

No. 20,867.—JOHN N. DENNISON, of Newark, New Jersey.—*Improvement in Force-Pumps for Fire-Engines.*—Patent dated July 13, 1858.—The nature of this invention consists in giving greater efficiency to the engine by increasing its capacity near the end of the stroke of the arms.

A is the pump-cylinder; B the main piston; C is an additional ring-piston, operating in the enlarged end of cylinder A; *e e e e* are spiral springs under the piston C; *f* is the bed-plate; *g* the valve; *h* a post; and *o* an air-barrel.

Claim.—Increasing the capacity of the pumps of fire-engines near the end of the stroke, by the expedients described, or their equivalents.

No. 20,875.—JOSEPH H. GRIMSLEY, of New Lexington, Ohio.—*Improvement in Fire Escape Ladders.*—Patent dated July 13, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I *claim* the wheels turning on the axles at the ends of the wings or steps, for the purpose set forth, of providing a space between the ladder and wall for the feet and hands of the individual when descending to enable and aid the ladder to reach the ground, said wheels being placed at the axle at the ends of the rungs, especially for this important purpose and object, viz: that with the wheels so placed it is of no consequence or difference which side of the ladder is uppermost when thrown out, making no difference which side of the same rests against the wall.

Also the straps which, placed substantially as set forth, combined with a ladder of the necessary strength and weight, as small, enables a person of ordinary strength to rescue the aged, infirm, young, and those too timid to descend alone, by lowering them to the ground by the hand.

No. 22,324.—JOHN WITHERS, of Collinsville, Ill.—*Fire Escape Ladder.*—Patent dated December 14, 1858.—The nature of this invention consists in combining a fire "shoot" with a pair of folding ladders, and a yielding bed or bottom, and in mounting the said combination upon a pair of wheels whereby the said machine may be transported, and also in so arranging the said ladders that they may be unfolded and placed against the side of a burning building for the escape of the inhabitants.

The inventor says: I *claim*, first, the combination of the canvas bag or shoot K with the ladder A, in the manner described, for the purpose specified.

Second. The combination of a bed J and its frame, as shown and described, arranged to open and close, as set forth.

Third. The arrangement of the two ladders A and B with each other in the manner set forth, and also the means of adjusting the ladder B, substantially in the manner described.

No. 21,094.—WILLIAM R. WARDEN, of Boston, Mass.—*Improvement in Fire Places.*—Patent dated August 3, 1858.—The nature of this invention consists in inserting and securing in fire places a metallic

frame D, within which is placed a vertical plate F, perforated for the reception of the stove pipe, and capable of being raised and lowered to accommodate the opening to the stove pipe in such a manner as to form an ornamental front, which shall entirely close the fire place and be capable of easy attachment and detachment.

Claim.—The combination and arrangement of the ornamental metallic frame D and vertical slide F, containing smoke pipe opening within the fire-place, in the manner and for the purpose described.

No. 22,410.—William A. Bradley and Jacob Bigelow, of Washington, D. C.—*Improvement in Manufacture of Artificial Fuel.*—Patent dated December 28, 1858.—The nature of this invention consists in pulverizing the crude coal as it comes from the mines and mixing it with certain substances named in the specification, and then compressing it into blocks for use as fuel.

When the coal is so pulverized by any suitable powerful machine, it is placed in vats or pans of fire-proof material and heated to a sufficient degree, when it is mixed with certain inflammable material, which is varied according to the character of the coal used.

Claim.—The manufacture of artificial coal made from refuse bituminous coal, anthracite or charcoal, as set forth, combines with the substances described, the whole made in the manner and for the purposes set forth.

No. 19,942.—James McCracken, of Bloomfield, N. J.—*Improvement in Furnaces.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the employment of hollow grate-bars for the passage of air through them, as such have before been known and used.

Nor do I claim supplying air to the gaseous products of combustion, for the combustion of the inflammable gases evolved from the fuel.

Nor do I claim the heating of the air to be supplied to the inflammable gases.

Nor, finally, do I claim the use of a shield plate to protect the bottom of the boiler and prevent it from being overheated, as all those have long been known.

But I *claim* the employment of hollow grate-bars in combination with a closed ash pit, in the manner substantially as herein described, so that the air which passes through the said grate-bars shall be discharged into the ash-pit and thence pass up between the said grate-bars to supply the blast or draught to the fire on the grate-bars as set forth.

I also claim the use of tubular bearers for supplying heated air to the inflammable gases at or near the fire bridge, substantially as described, in connexion with a shield plate, substantially as described, and interposed between the fire and boiler or other body to be heated, constructed and arranged as specified, to maintain the inflammable gases at a high temperature until after they are supplied with heated air for their ignition as described.

No. 20,836.—B. H. Washington, of Hannibal, Missouri.—*Improvement in Furnaces.*—Patent dated July 6, 1858.—This invention consists in using, in connexion with the two cones E E, what may be termed air conductors F F, placed within the furnace below the grate B, and so arranged as to diffuse the air equally over the surface of the grate, causing a more perfect combustion of the fuel with a milder flame than usual.

The inventor says: I do not claim the cones or funnels E E, for they have been previously used, and were formerly patented by me.

But I *claim* the air conductors F F placed below the grate bars B, constructed as shown, and used in connexion with the cones or funnels E E, substantially as and for the purpose set forth.

No. 19,781.—T. Dwight Ingersoll, of Monroe, Michigan.—*Improvement in Air-Heating Furnaces.*—Patent dated March 30, 1858.—This invention consists in arranging the radiators B and dampers H I of a furnace in such a way that the dampers may be made to perform the double function of dampers and scrapers and the radiators thereby kept clean.

Claim.—Constructing the radiator B, and arranging the dampers H I within it, substantially as shown, so that the dampers may perform the double function of dampers and scrapers, as set forth.

No. 20,640.—John P. Hayes, of Philadelphia, Pennsylvania.—*Improvement in Air-Heating Furnaces.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: First, I *claim* admitting hot air to the upper surface of the fire for the combustion of the gases arising therefrom, by making the fire tiles or lining of the fire chamber in numerous vertical sections, with the depressions *u y* in the adjoining sides of the same, so that when the said sections are placed together side by side in the fire chamber air spaces or flues *u y* will be produced between, so as to heat and discharge currents of air into the upper part of the fire chamber in the manner described, the said sections being constructed and arranged together substantially as set forth.

Second, I claim making a direct communication between the said air flues *u y* and the ash pit D, by means of the openings *w w*, or their equivalents, in the foundation plate upon which they rest, substantially as described.

Third, I claim forming the top and side plates of the furnace body A so that each of its said two and side plates l and l^1 may be combined with a row of pipes *m m*, opening at each of their ends, upon the same side of the plate, as described, and produce hot air flues *m m* through the body A of the furnace, when the said plates are united together at their upper edges, all substantially as and for the purposes set forth and described.

No. 22,353.—Felix Daunoy, of Carrollton, Louisiana.—*Improvement in Bagasse Furnaces.*—Patent dated December 21, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The construction of bagasse furnaces having the exit flue

F located in the interior of the furnace with the openings K to admit the gas from combustion, when in combination with the wood or coal chamber having a skeleton crown, and the grates B on which the bagasse is consumed, when made and arranged substantially as and for the purpose set forth.

No. 22,382.—Evan Skelly, of Plaquemine, Louisiana.—*Improvement in Boiler Furnaces.*—Patent dated December 21, 1858.—The operation of this improved furnace is as follows: The flame and heated gaseous products of combustion escaping from the fire chamber into the flue H under the boilers, the greater portion of them are caused by the arrangement of the bridges F F and G G to have a tendency to escape in the circuitous direction indicated by the arrows, through the passages *c c*, and the different currents thus produced meeting other, cause a circulation under every part of the boiler, while the whole of the gaseous products of combustion pass steadily toward the rear end of the flue, whence they pass into the chimney.

Claim.—The combination and arrangement of the gradually contracted fire chamber C with the bridges F F G G, as shown and described, for the purposes set forth.

No. 20,591.—Evan Skelly, of Plaquemine, Louisiana.—*Improvement in Furnaces for Burning Bagasse, &c.*—Patent dated June 15, 1858.—This invention consists in a certain construction of the furnace and arrangement of air passages $c\ d\ d^1\ e$ for heating and supplying air to the fire, whereby a very perfect combustion of the small or refuse fuel is obtained with the use of a small quantity of wood.

Claim.—The angular internal projections *a a*, central cone *b*, and air passages $c\ d\ d^1\ e\ f\ g$, combined and arranged substantially as described to operate as set forth.

No. 22,067.—G. B. Deppen and E. Levengood, of Myerstown, Pennsylvania.—*Furnace for Burning Coal Dust.*—Patent dated November 16, 1858.—The nature of this invention consists in the manner in which the several parts of the furnace are arranged and combined, so as to adapt to the successful and economical burning of coal dust.

Claim.—In combination with a fan-blower to promote combustion the arrangement of the fire chamber, ash box, perforated plates, combustion and exit chambers, communicating with each other, and with the air trunk leading from the fan-blower, substantially in the manner and for the purposes described.

No. 22,424.—Thomas R. Hartell, of Philadelphia.—*Improvement in Furnaces for Burning Lime.*—Patent dated December 28, 1858.—This invention consists in forming the bed of a reverberatory furnace of a series of fire-proof platforms, the projecting edges of which fit into recesses in the side walls, for the purpose of cutting off all communication between the cold air of the lower part of the furnace and heated air in the upper portion of the same.

Claim.—Providing a recess in the side walls in which a corresponding projecting edge of the fire-proof travelling platform fits, in

the manner described, for the purpose of cutting off all communication between the heated upper chamber and the cool lower chamber, at the same time presenting no obstruction to the forward movement of the truck and platform.

No. 21,724.—John Plant, of Washington, D. C., assignor to Himself and George H. Plant, of said Washington.—*Improvement in Furnaces for Heating Buildings.*—Patent dated October 5, 1858.—The inventor says: The nature of my invention consists in the manner in which I have arranged and combined the flue passages with the fire box, for the purpose of causing the heated products of combustion to commingle or pass through different portions of the flue space, and thus uniformly heat the surrounding air in the air chamber, and as incidental to this arrangement the greatly increasing of the radiating surface of the furnace.

Claim.—The mixing of all the heated products of combustion both below and above the fire cylinder by an arrangement of diving and ascending flues leading into common chambers, where they cross each other, and are forced to commingle substantially as described and represented.

No. 20,616.—Gideon Bantz, of Frederick, Maryland.—*Improvement in Furnaces for Heating Steam Boilers, &c.*—Patent dated June 22, 1858.—This invention consists, 1st. In two or more arched fire chambers, A A, with throats, *e*, of less area than their capacity. 2d. An auxiliary combustion reservoir or chamber, C, with *cima reversa* shaped bottom and side draught door. 3d. A series of reverberatory chambers, D D, with side draught doors, *h*, and passages at top for communicating with each other, and a diving or direct flue leading into the chimney or smoke stack.

Claim.—The arrangement of the fire chambers, A A, contracted throats, *e e*, auxiliary combustion reservoir, C, provided with a *cima reversa* bridge plate, *m n*, and door, h^1, reverberatory chambers, D D, with doors, *h h*, and the diving or direct flue, E, substantially as and for the purposes set forth.

No. 19,277.—O. W. Bayley, of Boston, Mass., assignor to the Boston Locomotive Works.—*Improvement in Furnaces for Locomotives.*—Patent dated February 2, 1858.—In describing his improvement the inventor says: I construct my boiler with a tight water space bottom, A, in the centre of which is inserted a water space cone, B, through which passes a number of tubular passages, *a*, for the admission of the draught to the fire box. That there may be circulated through the cone B, to prevent the accumulation of steam therein, and its consequent destruction, its apex is continued up to the crown sheet by means of the tube C, which is secured to the crown sheet L, and opens at the bottom into the interior of the cone, and at the top into the upper part of the boiler.

Claim.—The water space perforated cone, as connected with the crown sheet, and in connexion with a tight furnace bottom, operating in the manner substantially as set forth.

No. 20,926.—Joseph Wharton, of Philadelphia, Pa., and Nathan Bartlett, of Bethlehem, Pa., assignors to Joseph Wharton, of Philadelphia, aforesaid.—*Improvement in Furnaces for Manufacturing Oxide of Zinc.*—Patent dated July 13, 1858.—This invention consists in an improved arrangement and construction of furnaces for the manufacture of white oxide of zinc, for the purpose of attaining an increased economy in the process and purity in the results.

The inventor says: I *claim*, first, the construction and arrangement of the furnaces of double the usual length, without any separating end wall, and with a charging door to each extremity, in the manner and for the purposes set forth.

Second. The construction and combined arrangement of the conduit L L^1, the damper or valves, *d* and e^1, and the chimneys, *g g g*, in the manner and for the purposes substantially as set forth.

Third. The series of tweers, opening into the conduit, L L, arranged and operating as described.

No. 22,257.—William McFarland, of St. Louis, Missouri.—*Improvement in Furnace for Melting Iron.*—Patent dated December 7, 1858.—The object of this invention is to prevent the collecting of the melted metal in the bottom of the furnace, and thereby keep the furnace free and in good melting order. It consists in attaching a reservoir to the surface to extend below the level of the bottom for the purpose of receiving the metal as fast as it is melted.

Claim.—The combination of a reservoir, A, with a cupola furnace, B, so as to collect the metal as fast as melted, substantially as and for the purposes set forth.

No. 21,828.—Perry G. Gardiner, of New York, N. Y.—*Improvement in Furnaces for Tempering Steel.*—Patent dated October 19, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim*, first, the heating of steel for the purposes of preparation, for hardening, tempering, or annealing in a closed chamber or oven of fire-brick, or other suitable material, impervious to the flame, smoke, and gases of combustion; the smoke, flame, and gasses of combustion being distributed over the exterior surface of the floor, roof, and rear of the heating oven, by means of vertical and return or reverberatory flues between the fire chamber and chimney, as described.

Second. I claim the perforated air tube, *b*, placed at the foot of the vertical descending flues on the side of the bridge wall opposite the fire place, in combination with the fire chamber and flues, and between the fire chamber and oven, operating in the manner set forth.

No. 22,041.—Joseph Thomas, of New York, N. Y.—*Improved Furnace for Tempering Steel.*—Patent dated November 9, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I *claim* arranging a plate B in an upright furnace with a central passage *a* in such a manner and in such relation to a tank D, containing water or other suitable liquid, that a piece of steel wire or a strip of sheet-steel may be heated and hardened without

coming in immediate contact with the fire, by passing the same through the passage *a* and through the liquid contained in the tank D, the whole being arranged substantially as specified.

And I also claim arranging the two furnaces A and E and the tank D in such relation to each other that a piece of sheet wire or a strip of sheet steel may be hardened and tempered by one operation, by passing the same through the plate B in the furnace A, and through the liquid contained in the tank, and from thence between the plates F and G, which are heated by the fire in the furnace E, the whole being arranged and constructed substantially as described.

No. 20,316.—Albert J. Allen & William S. Hudson, of Paterson, N. J.—*Improvement in Furnace Grates.*—Patent dated May 25, 1858.—This invention consists in a certain mode of applying the bars C C of a furnace grate to provide for a limited upward and downward movement thereof, in which each bar ascends as the next one on either side of it descends, and *vice versa*, which movement serves to break up the "clinkers," or other foreign or residuary matters that collect upon the grate and tend to choke the draught between the bars, and to cause such matters to work down between the bars into the ash pit more effectually than by any other movement of the grate, and also serves to effect the even distribution of the fuel over the grate.

Claim.—The combination together of the vertically moving furnace bars C, furnished with projections *l*, when arranged and operating substantially as shown and described.

No. 19,239.—George Darby, of Augusta, Me.—*Improvement in Hot-Air Furnaces.*—Patent dated February 2, 1858.—A represents the furnace constructed with a single fire-chamber. B C is the fire-grate, D the chimney flue, and D^1 the damper of the same, E is the cold air pipe; it communicates by its front end, which passes through the front of the surface, with the open atmosphere, and by its rear end, which is bent up at right angles, with the draught or pipe flue D. H H are two deflecting radiating plates, connected together by vertical bolts so as to stand one above the other and leave an open space between them for the flame and heated gases to circulate through, and escape into the cold air auxiliary flue.

Claim.—The combination of a hollow cold air auxiliary draft flue E, two deflecting radiating plates H H, and a pivoted perforated damper D^1, all arranged and operating substantially as and for the purposes set forth.

No. 19,683.—John Child, of Elyria, Ohio.—*Improvement in Hot-Air Furnaces.*—Patent dated March 23, 1858.—The nature of this invention consists in so constructing the stove for a furnace heated by wood that boiler iron shall be sufficiently stiff for the purpose, and so dividing the large chamber around the stove into air passages and chambers as to more thoroughly heat the air and increase the current and quantity passing through the furnace.

The inventor says: I do not claim the gradual heating of air in its approach to the fire chamber of a furnace.

But I *claim* the arrangement whereby I effect the gradual heating and an active circulation of air by the arrangement of the horizontal prolonged passage A B and C D, surrounding the fire chamber and the rarefying chambers E E and F, above the fire chamber, constructed and operating as set forth.

No. 20,454.—Jacob Stuber & Frederick Frank, of Utica, N. Y.—*Improvement in Hot-Air Furnaces.*—Patent dated June 1, 1858.—The nature of this invention consists of separate and distinct radiators B, communicating with the air chamber G, and which radiators may be made of cast or wrought iron. Each radiator acting independent and giving out as much heat as a stove of the same capacity.

Claim.—The arrangement of radiators B, constructed as described, connected at the lower end with the chamber G, and by the pipes C with the perforated plate F and the cleaning box D with funnel *e*, all constructed and operating substantially as set forth.

No. 22,173.—John R. Ferguson, of Brooklyn, New York.—*Improvement in Hot-Air Furnaces.*—Patent dated November 30, 1858.—A is the boxing under the floor plate; B is the fire-door and boxing of same; C C is the lower part of the register pipes; *c c* shows the tooth-points to same; D shows the gas-tight joint; E is the partition and second division plate; *f* denotes the flanges; G the small cones; *g* the bands around the cones upon which the flanges *f* are put; H the smoke-chamber; *h* the descending smoke-pipe; h^1 draughter to smoke-chamber; I fire-box and grate; *i* smoke-pipe; J partition around fire-box; K cold air descending-pipe; L water-pan; *l* openings in same; M air chamber around fire box; N inside cylinder; O outside cylinder; *o* openings between cylinders for air to descend; P volatile liquid box; *a* end of smoke-pipe with cover; *b* pipe to lead off volatile liquid; *d* pipe to lead off volatile liquid from smoke chamber; Q ash-drawer; *e* openings in same; R outside partition; *r* openings in same; S supply water-pipe; *s* ball and faucet attached to same; T shows line of first division plate; *x* are standards, with screws and nuts *z*.

Claim.—The combination and arrangement of the various parts as described, for the purposes specified; also, the evaporation-pan L in the hot-air chamber of the furnace, when made adjustable vertically, for the purposes specified and set forth.

No. 19,502.—James W. Geddes, of Baltimore, Maryland.—*Improvement in Registers for Hot-Air Furnaces.*—Patent dated March 2, 1858.—This invention consists in a peculiar construction of the hot-air registers of furnaces for warming buildings, for the purpose of protecting the building from fire. A represents the floor of an apartment into which the hot air from the furnace is conducted through the flue B and register D. The register is set in a cap E of soapstone or other equivalent non-conducting incombustible material. This cap is penetrated freely with numerous vertical passages F, which communicate with the open or ventilated casements H. These casements are made of bright tinned iron, and their floor K is perforated similarly to the cap E.

The inventor says: I am aware that it is a common practice to surround stove-pipes, where they pass through the walls and floors of buildings, with collars in "flue pots" of earthenware, and also with metallic jackets, and I lay no claim to such devices.

But I *claim* the mode set forth of constructing the fire-proof settings for registers for hot-air furnaces, the same consisting in the employment of one or more ventilated casements surrounded by a perforated cap of non-conducting incombustible material, as described.

I also claim the flaring tubular terminations F^1 of the passages H, for the purposes set forth.

No. 19,678.—Ebenezer Barrows, jr., of Brooklyn, New York.—*Improved Self-Adjusting Damper for Hot-Air Furnaces.*—Patent dated March 23, 1858.—This invention consists in placing in the lower part of each hot-air conducting pipe C a valve or damper F, hung on an axis in nearly an equilibrated state, so that when the register of the pipes is closed, and the draught through them consequently stopped, the dampers will close by their own gravity and shut off the pipes from the air-heating chamber.

The inventor says: I do not claim broadly the employment or use of valves or dampers placed in the hot-air conducting pipes of air-heating furnaces, for they have been used for similar or analogous purposes.

But I *claim* placing the valve or damper F in the lower part of the hot-air conducting pipe C when said valve is so hung or arranged to operate as and for the purpose shown and described.

No. 21,644.—James Alcorn, jr., of Charlestown, Massachusetts.—*Improvement in Steam Boiler Furnaces.*—Patent dated October 5, 1858.—This invention consists in a novel arrangement of passages for the purpose of causing the return from the back part of the furnace and from the lower part of the smoke-stack to the ash-pit of considerable portions of the smoke and inflammable matters escaping from the fire-box, and the consumption of these matters, by causing them to pass through the fire on the grate, with the fresh air admitted to produce the combustion of the fuel on the grate.

The inventor says: I do not claim returning a portion of the gaseous products of combustion to the fire.

But I *claim*, first, the arrangement of the chambers C^1 C^2 C^3, with their respective passages I C^4 C^4 I^1 I^1 communicating with the smoke-stack, and the passages T G G and the chamber B communicating with the ash-pit, substantially as and for the purpose set forth.

Second. The arrangement of the cone-pipe D, with its deflecting cover V, and the pipe H, in combination with the chamber B, arranged in rear of and communicating with the ash-pit, substantially as and for the purpose described.

No. 20,667.—Silas T. Savage, of Albany, New York.—*Improvement in Furnaces for Boilers and Stoves.*—Patent dated June 22, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventor says: I do not wish to be understood as making claim to the use of a perforated air chamber to supply atmospheric air in small jets to inflame the gaseous products of combustion, as I am aware that this has long been known and tried in various forms, but not, as I verily believe, substantially in the manner or with the results specified.

What I *claim* is, the arrangement of the air chamber, substantially as described, with the perforated bottom of a conical or equivalent shape placed in the upper part of the fire chamber, with the concave surface downward toward the fire and with a central aperture leading to the chamber of inflammation, substantially as and for the purpose specified.

No. 20,351.—William D. Jones, of Hagaman's Mills, New York.—*Improved Apparatus for Separating the Combustible from the Incombustible Gases or Products of Combustion in Furnaces, &c.*—Patent dated May 25, 1858.—This invention consists in the construction and arrangement of the parts of an apparatus for separating, to a certain extent, the combustible from the incombustible gases of combustion, in such form as to make the apparatus applicable to all steam boilers or other furnaces or to stoves.

The inventor says: I do not claim the returning of the combustible portion of the volatile or gaseous products of combustion to the fire.

Nor do I claim, broadly, the separation of the combustible from the incombustible products by the difference in their specific gravity.

But I *claim* the box A, with its inlet *a*, separating diaphragm *b*, chambers B and C, pipe or passage *f*, and two fan blowers D and F, arranged in the manner substantially as described and operating as set forth.

No. 19,720.—Dennis Sullivan and Michael McIntyre, of Cincinnati, Ohio.—*Improvement in Gas-Burners.*—Patent dated March 23, 1858.—A is the base by which the burner is attached to the pipe; B is the cap or exterior part of the burner attached to the base by means of a screw joint at *a*; C is a plug or stem screwed into the base A, and extended centrally within the burner to near the tip *e*; *c c* are slots in the foot of the plug C, through which gas passes to the heating chamber *b*.

Claim.—The construction and arrangement substantially as described of the plug C, regulating the flow of gas to any extent desired.

No. 19,959.—William Tallman, of Cincinnati, Ohio.—*Improvements in Gas-Burners.*—Patent dated April 13, 1858.—A is the base of the burner by which it is attached to the pipe. The gas passes upward through holes *a* into the lower chamber *b*, against the walls of which it is deflected by an imperfect disk C, fixed concentrically within said chamber, and of such size that a slight chink *c* intervenes all around between the disk and the walls of the chamber, through which chink the gas passes in the form of a hollow film, uniting again above.

The inventor says: I am aware that disks have been employed

within gas-burners to act on the principle of valves, I therefore do not claim such.

But I *claim* the construction and arrangement, substantially as described, of the disk *c*, fixed concentrically within the burner, so as to leave around it a contracted annular passage *c*, for the purpose explained.

No. 20,584.—Amos H. Ray, of Boston, Massachusetts —*Improvement in Gas-Burners.*—Patent dated June 15, 1858.—D is a hollow fluted or corrugated cone, which fits into the ring *a*. The cone is closed at the bottom and open at the top, and its interior thus forms a continuation of the chamber F; into this chamber, and nearly to the bottom of the cone D, projects the tube G, which descends from the tip or jet H and passes through a hole in the part C to which it is brazed.

Claim.—The described gas-burner, consisting essentially of the chamber F, heating tube G, and the cone D, or its equivalent, operating in the manner substantially as set forth.

No. 20,626.—Robert Cornelius, of Philadelphia, Pennsylvania.—*Improvement in Gas-Burners.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* constructing fish-tail gas burners with an interior annular space *g g* extending to the commencement of the holes of discharge e^1 and d^1.

I also claim the auxiliary holes $l\ l^1$, or 1 2 3 4, in combination with a fish-tail burner, arranged and operating substantially as described.

No. 21,076.—Frederick Charles Krause, of New York, N. Y.—*Improvement in Gas-Burners.*—Patent dated August 3, 1858.—This improvement consists in the manufacture of gas-burners for heating purposes, of a composition made by mixing pulverized burnt clay with powdered glass, carbonate of soda, or some other flux or substance of similar character, which may be boxed with the clay at a low red or white heat, and by its fusion at such heat serve to unite the particles of fine clay, but yet make with it a composition of a very porus character, which is sufficiently refractory to enable the gas to be burnt on its surface and to bear the repeated heating and cooling to which a gas burner is subject.

The inventor says: I do not claim to be the first inventor of a porous gas burner, as I am aware that they have been constructed of wire gauze, and by making beds of such material covered with broken pumice stone, and of some other substance.

But I *claim* the manufacture of gas burners, or those parts of them from which the gas is to be emitted, of the porus composition produced by the union of the substances specified, in the manner set forth.

No. 21,229.—William Wright, of St. Louis, Missouri.—*Improvement in Gas-Burners.*—Patent dated August 17, 1858.—The nature of this invention consists in the peculiar construction of the burner, whereby the flow of gas through it is regulated, and whereby the

direction of the current is changed and the gas forced against the heated sides of the burner, thus rarefying it and purifying it and preventing it from blowing through.

The inventor says: I lay no claim to any of the devices used in the inventions of C. H. Johnson or E. P. Gleason, or A. H. Ray, or J. C. Walsh, as such.

But I *claim* the adjustable valve *g*, in combination with the chamber *s* in which the said valve seats, and the adjusting nut *c* around the said valve, whereby the joint is made tight in any given position, for the purpose specified.

No. 21,497.—Lucien E. Hicks, of New York, N. Y.—*Improvement in Gas-Burners.*—Patent dated September 14, 1858.—This invention relates to the construction of gas-burners which have caps made with a crown concave internally applied to them. And it consists in making the outer surface of the crown of the cap flat or nearly flat, and the orifice through which the gas escapes of circular form horizontally and with its edge curved in the path of two vertical circles as delineated in the sectional view of the drawing.

The inventor says: I *claim*, in the construction of gas burners which have caps made with a crown concave internally applied to them, making the outer surface of the crown of the cap flat or nearly flat, and the orifice *d* through which the gas escapes of circular form horizontally and with its edge curved in the path of two vertical circles as delineated in the sectional view of the drawing, for the purposes set forth.

No. 21,586.—A .H. Wood, of Boston, Mass.—*Improvement in Gas-Burners.*—Patent dated September 21, 1858.—This improvement consists in a novel arrangement of devices by which the width of the flame is increased, and the heat from the flame conducted to a height above the orifice of the burner.

Claim.—The combination with a gas burner of metallic flanges or spreaders, arranged near and above the orifice of the burner, as described, for the purpose of spreading the flame and consuming the impurities of the gas, whereby the orifice is kept clear, as set forth; and this I claim, whether the conducting rods be used or not.

No. 21,728.—Junius F. Fozer, of Binghampton, N. Y., assignor to George W. Gregory, of said Binghampton.—*Improvement in Gas-Burners.*—Patent dated October 5, 1858.—The nature of this invention consists in providing a stop-cock to pass through the base or thick part of the burner, which has two or more gauge-holes, or orifices, through which the gas is admitted into the supplementary chamber, so that by turning it a given distance it will vary the amount of gas to be consumed from a two feet to that of a four or six feet burner.

Claim.—The application to the common gas-burner of the two or three way turning cock, for the purpose set forth.

No. 21,733.—YARNALL BAILEY, of Philadelphia, Pa.—*Improvement in Gas-Burners.*—Patent dated October 12, 1858.—This invention consists in so constructing and arranging the generator of self-generating gas-burners in connexion with the tube and burner that the said heater may be adjustable in such a manner that when the heater is extended it will present more surface to the flame, which, consequently, generates more vapor or gas, and the extent of the light is increased; by lowering the heater less surface is exposed to the flame, and the opposite results are obtained. By this arrangement the extent of the flame may be increased or diminished at pleasure.

Claim.—The mode of producing a flame, the extent of which may be increased or diminished at pleasure by means of the adjustable heater D, in connexion with the tube B and the burner *b*, substantially as described, or any equivalent to the same.

No. 20,604.—WILLIAM W. BATCHELDER, of New York, N. Y., assignor to WILLIAM J. TOWNSEND, of said New York.—*Improvement in Argand Gas-Burners.*—Patent dated June 15, 1858.—This invention consists in surrounding the central ring of flames by an additional ring *a*, composed of lesser jets, which are placed equidistant from the central one, as well as from each other.

Claim.—Surrounding the cylindrical flame of an argand burner with supplemental jets, placed at such distances from each other and from the central flame that they shall neither intermingle with each other, nor with said flame, and of such number as will produce the effects described.

No. 21,090.—JOSEPH E. STANWOOD, of Malden, Mass.—*Improvement in Argand Gas-Burners.*—Patent dated August 3, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the argand burner as constructed with two chambers connected by tubes so arranged as to allow the air to flow between them into the space surrounded by the upper or annular chamber.

But I *claim* the improved argand burner, as made with its several supporting tubes C C C of its annular chamber extended down within the lower or receiving chamber and around its entrance hole or passage, substantially in manner as described, and for the purpose of preventing noise or singing of the flame when the burner is in operation.

I also claim the combination and arrangement of the described perforated partition *f* with the annular or upper chamber of the burner, and having its perforations or spaces between the same disposed with respect to the mouths of the inlet tubes, substantially as specified.

No 22,331.—CALVIN PEPPER, of Albany, N. Y., assignor to Himself and JOHN G. TREADWELL, of said Albany.—*Improvement in the Method of Applying Gas for Heating and Illuminating Purposes.*—Patent dated December 14, 1858.—The nature and object of this invention will be understood by an examination of the claim and engraving.

The inventor says: I do not claim to be the first inventor of a porus gas-burner, as I am aware they have been constructed of wire

gauze, and by making beds of such material covered with broken pumice stone, and by a composition of matter patented by F. C. Krause, and by some other substances other than silicious sand; and I do not claim the burning of gas in such way, except through silicious sand in a state of division; and I do not claim to be the inventor of passing gas through sand for the purpose of purifying the gas; I make no claim for burning gas for illuminating purposes only, after having passed through the sand and separate from the same; I make no claim in this application for the use of gas or sand in a separate state; and I make no claim for the ventilating arrangement described, or for the admixture of gas and atmospheric air before burning.

What I *claim* is passing coal for other inflammable gas alone, or in admixture with atmospheric air, through a stratum or mass of silicious sand, without aggregation of particles to be inflamed at the surface, substantially as described, for heating purposes, and also for illuminating, as incident thereto, as described.

No. 19,185.—Patrick S. Devlan, of Camden, New Jersey.—*Improved Gas Heating Apparatus.*—Patent dated January 26, 1858.—A represents a supporting frame or base for the apparatus. To this frame is attached a reservoir or tank B for containing water, a steam generator C, and a radiator D, which parts, with their connexions, form the main elements of the apparatus. The apparatus is mainly designed to be used with gas as a heating medium, because the common illuminating gas may be divided into small jets, and by introducing more oxygen into it, it becomes a highly heating gas, losing its illuminating property in the same ratio, and is thus peculiarly adapted to lighting and heating, as it may be required for either purpose, and changed from one to the other.

Claim.—The arrangement of the tank, generator, and radiator, with each other, and with a gas-burner, substantially as set forth, and for the purpose of making a gas heating apparatus for warming rooms, chambers, &c., as described.

No. 22,134.—Silas T. Savage, of Albany, N. Y.—*Improvement in Grate Bars.*—Patent dated November 23, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The employment of the bar *a* when provided with a series of flanges which form an arc above the bar, and which taper from the extremities of the cord of said arc to or near the bottom of the bar, thus supporting the coal in arches above the bar, and at the same time strengthening and sustaining the bar by the tapering sides of the flanges, substantially in the manner specified.

No. 21,157.—Joseph H. Thomas, of Newark, New Jersey.—*Improvement in Folding Gridiron.*—Patent dated August 10, 1858.—The claim and engraving explain the nature of this invention.

The inventor says: I do not claim the invention of double or folding gridirons.

But I *claim* the application to a folding gridiron of the hinge joint,

formed by the slotted stands *b b*, and the projecting bearings on the ends of the back cross-bar *a*, or their equivalents; the jointed handle *e* and slotted standard *f* or their equivalents; the whole forming an adjustable folding gridiron, substantially as described.

No. 20,939.—Chauncey A. Dickerman, of New Haven, Connecticut.—*Improved Steam Heater.*—Patent dated July 20, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The arrangement of the chest of steam-heating flues I I I I I I, mutually parallel, and inclined as described, in combination with similarly inclined and parallel air flues K heated thereby. Both the steam and the air having passed once through its flue on passage across the chest, is at once discharged to its final destination in the manner and for the purpose set forth. The arrangement or combination as thus described and represented I claim as an efficient and cheap apparatus.

No. 19,197.—John C. Hoadley, of Lawrence, Massachusetts.—*Improvement in Heaters or Coolers.*—Patent dated January 26, 1858.—The nature of this invention consists in forming heaters or condensers, or sections, by constructing an outside case with heads, having tubes *e e* joining and connecting the heads within the space enclosed by them and the case *c*, so that there will be no joints between the case and heads, or between the tubes and heads.

Claim.—Constructing heaters or coolers by forming the tubes, tube sheets, and case thereof of homogeneous metal and without joints uniting said parts.

No. 22,109.—William H. Churchman, of Janesville, Wisconsin.—*Improved Apparatus for Heating and Ventilating Buildings.*—Patent dated November 23, 1858.—The nature of this invention consists in arranging within the double walls of a furnace, placed in a suitable part of a building to be heated, a series of peculiarly formed rarifying metallic drums, to which a moderate degree of heat is imparted, and causing said drum to communicate by suitable pipes at the upper and lower parts with venti-ducts or flues, extending to the apartments to be heated, in such a manner as to produce a continuous draught of air from the apartments through the drums and thence back again to said apartments in a heated state.

Claim.—The peculiar arrangement and combination of the induction and eduction flues, or venti-ducts K K^1, the continuation flue of the venti-duct K^1, the damper *j*, and the registered openings *f g h i*, whereby any number of the rarifying drums D, with their accompanying venti-ducts K K^1 may be used at pleasure, either for warming or ventilating alone, or for both at the same time as described.

No. 19,775.—Francis L. Hedenberg, of New York, N. Y.—*Improved Heating Apparatus.*—Patent dated March 30, 1858.—The nature of this invention consists in the manner of arranging within the case A, the fire-box B, combustion, spark, or draught chamber J, and the gas and air pipes M N, so that they shall be surrounded by

water space, the object being to regulate draught and to make available all the heating surfaces possible.

Claim.—The arrangement within the case A, of the fire-box B, spark or draught chamber J, and the flue and air pipes M N, the whole being surrounded by water space, and connected and arranged substantially in the manner and for the purpose set forth.

No. 21,185.—Henry G. Bulkley, of Kalamazoo, Michigan.—*Improved Steam-Heating Apparatus.*—Patent dated August 17, 1858.—This invention consists in heating air for warming houses, &c., by causing it to pass through pipes, passages, or chambers, which are wholly or partly surrounded by, or which surround, a chamber containing super-heated steam of a very limited pressure.

The inventor says: I do not confine myself to any particular construction of the furnace or apparatus employed in carrying out my invention.

But I *claim* the surrounding of the air passages by a steam atmosphere, to which heat is applied after the steam is generated, for the purpose of increasing the temperature of the steam without high pressure for making a rapid, safe, economical, and wholesome heat, substantially as specified.

No. 20,917.—J. H. Chester, of Cincinnati, Ohio, assignor to M. A. Chester, of Cincinnati aforesaid.—*Improved Radiator for Heating Buildings, &c., by Combustion of Gas or Alcohol.*—Patent dated July 13, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The radiator constructed with a central opening C C in its bottom, to receive the flame and heated products of combustion from the burner, and with the surface of said bottom inclining downwards from said opening towards two openings *d d*, at the ends, and with the wire gauze cylinders or their equivalent *l l k k*, between the slides, by which means combined provision is made for the condensation and free escape of the water of condensation, together with such carbonic acid as may be absorbed by it.

No. 21,195.—Adolph Hammer, of Reading, Pa.—*Improvement in Apparatus for Heating Mash Tubs.*—Patent dated August 17, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that Bessemer's apparatus for warming saccharine liquids both warms the contained liquid and washes the molasses from the crystalline sugar; but this apparatus is in no way adapted for producing and extracting from malt the required saccharo-mucilaginous matter which with water, constitutes wort. I therefore do not claim anything appertaining to said apparatus.

But I *claim* the arrangement on the outside of the mash tun described, and in combination therewith of a steam heater, in such a manner that any suitable quantities of the fluid extract of the malt may, at the discretion of the operator, be withdrawn from the tun through the said heater, so as to be warmed by the latter as it passes

through the same to any suitable receiver provided for the purpose, that it may immediately afterward be returned into the tun for the purpose of raising the temperature of the mash therein to the degree required as described; the said heater being connected with the interior of the tun, and the said pipes being provided with cocks, substantially in the manner set forth and described.

No. 20,767.—Joseph P. White, of Philadelphia, Pa., assignor to Himself and Francis Fox, of said Philadelphia.—*Improved Apparatus for Heating Tires.*—Patent dated June 29, 1858.—This invention consists in so combining a casing B, having a lid and a revolving grating C, with a fire chamber S, and a blowing apparatus R, and in so arranging the whole, that a flame of intense heat may be forced into the casing and take a course round the same, thereby imparting to the tire placed on the grating an uniform heat throughout.

Claim.—The casting B, with its revolving grate and lid, in combination with the fire chamber S and fan R, or other equivalent blowing apparatus, when the whole are arranged for joint operation, substantially as and for the purpose set forth.

No. 20,856.—John J. Bate, of Brooklyn, N. Y.—*Improvement in Kettles for Rendering Lard.*—Patent dated July 13, 1858.—The object of this invention is to provide means by which a passage is made from the exterior to the interior of the central heater of a double steam kettle, so that the contents of the kettle and heater can communicate with each other for the more ready clearance of the contents of the heater, and for the purpose of expediting the process of rendering.

Claim.—Providing a means of communication between the exterior and interior of the heater C, by the apertures D D^1, so that the contents of the kettle and the heater can communicate with each other, as and for the purpose set forth.

No. 19,266.—John Stuber & Richard Hughes, of Utica, New York.—*Improvement in Lamps.*—Patent dated February 2, 1858.—The nature of this invention will be understood by reference to the claims and engravings.

The inventors say: We *claim* so constucting and arranging the upper half of the feed pipe *j* of a spring or mechanical lamp that the lower half will be free to slide to the top, or nearly so, of the wick tube for the purpose of lessening the height of the latter and of rendering the lamp more compact, substantially as set forth.

Second. The arrangement and combination of the elastic strip *p*, pin *q*, and slot *y*, with the rods *t*, and loops *u*, the whole being constructed and operated in the manner substantially as set forth, for the purpose of forming an elastic piston for a lamp.

No. 19,896.—Pascal Plant, of Washington, D. C., assignor to Himself and Peter Hannay, of said Washington.—*Improvement in Lamps.*—Patent dated April 6, 1858.—The nature of this invention consists in forcing through the lower part of the flame a current of

fresh air, so that the oxygen therein contained shall be brought immediately in contact with the carbon the moment the degree of temperature of the latter is sufficiently high to promote combustion.

Claim.—Forcing a current of air through the lower or blue part of the flame by means of a cap-piece, constructed and arranged in relation to the wick-tube, in the manner and for the purposes substantially as set forth.

No. 19,898.—Robert Steinmann, of Boston, Massachusetts, assignor to Himself and N. S. Wax, of said Boston.—*Improvement in Lamps.*—Patent dated April 6, 1858.—The object of this invention is to produce a lamp in which grease and fats of inferior quality can be burned without danger of choking up the lamp and without producing the disagreeable smell which usually accompanies the use of such materials, and by heating the air which supplies the combustion of the oil or melted fat, before it comes in contact with the flame, to produce a more perfect combustion and thus give a clearer flame and avoid smoke and dirt.

The inventor says: I *claim*, first, the arrangement of the elevated reservoir I, with its filter K and passages of communication G and H, operating in the manner substantially as set forth.

Second. In combination with the reservoir I, the passages G and H, and the oil chamber D, I claim the bent tube *n* operating in the manner substantially as described.

Third. And in combination with the elevated hot oil reservoir I, I claim the plate L for the purpose of regulating the temperature of the fat or oil, as specified.

No. 20,159.—Edward F. Jones, of Boston, Massachusetts.—*Improvement in Lamps.*—Patent dated May 4, 1858.—This invention consists in holding the deflector, as well as the chimney, fast to the cap B of the lamp by means of a spring *e*, so that the chimney and deflector or either of them may be readily removed by merely pressing back a spring. The spring *e* is formed of thin metal, having short bends at 1 and 2 to catch over the lip or base of the chimney.

Claim.—Securing the chimney to the removable cap, and both of them to the lamps by means of a spring operating in the manner substantially as set forth.

No. 20,134.—L. Bailey, of Charlestown, Massachusetts, and R. Thayer, of Boston, Massachusetts.—*Improvement in Lamps.*—Patent dated May 4, 1858.—This invention consists in a peculiar construction of the lamp whereby the reservoir containing the burning material is kept in a cool state, the flame supplied with a large amount of oxygen commensurate with its requirements to produce a perfect combustion, the light is readily graduated and wholly extinguished, when necessary, without the emission of smoke or any disagreeable odor.

The inventors say: We *claim*, first, the arrangement of the annular reservoir G within the case C, as shown, so that both the inside and the outside draughts of the flame may be supplied up through the

base and pedestal, and in their passage cool all sides of the reservoir, substantially as set forth.

Second. The button L, when made of concavo-convex form and of the proper dimensions, so as to throw the air that passes up through the central passage H down on the flame and at the same time permit the flame to rise vertically, instead of spreading it laterally as usual.

Third. The combination of the revolving cap E, wick-tube I with or without the button L, and the annular reservoir G, arranged relatively with each other and used in connexion with the case C, the hollow pedestal B, and base A, substantially as described and for the purpose set forth.

No. 21,069.—William Fulton, of Cranberry, New Jersey.—*Improvement in Lamps.*—Patent dated August 3, 1858.—The object of this invention is to adapt a lamp for burning equally well all the different substances used for illuminating purposes, however much they may vary in the amount of carbon they contain. This object is obtained by applying a register to the cap of the lamp and using in connexion therewith a perforated plate or air distributor.

Claim.—The register formed of the perforations *e* in the top A and the perforated plate *f* placed within the top, in combination with the perforated or air-distributing plate A, the whole being arranged substantially as and for the purpose set forth.

No. 21,344.—James P. Kenyon and Ellen Kenyon, of Brooklyn, New York.—*Improvement in Lamps.*—Patent dated August 31, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We *claim*, first, constructing and arranging the wick tubes so that the orifice of the air passage at the upper ends of said tubes may be expanded or contracted without the necessity of changing the relative position or location of the lower ends of said tubes to each other, substantially as and for the purposes set forth.

Second. The band D provided with the ears E, applied to the wick tubes C C, and used with or without the central strip N, for the purpose specified.

No. 21,576.—Christian Reichmann, of Philadelphia, Pennsylvania.—*Improvement in Lamps.*—Patent dated September 21, 1858.—The nature of this invention consists in the slotted open bell-shaped cap, that is a cap which admits of the external air passing in between its outer margin and the chimney, and which also allows the light to be reflected downward or towards the flame as well as above it.

Claim.—In combination with the lamp, the slotted open bell-shaped cap *m*, when so constructed, arranged and operating as to allow light to be deflected downward, substantially in the manner and for the purpose set forth and explained.

No. 21,627.—William H. Racey, of St. Augustine, Florida.—*Improvement in Lamps.*—Patent dated September 28, 1858.—The object of this invention is to obtain a lamp by which the flame may be supplied with a large or requisite amount of oxygen, without the employ-

ment of the glass chimney which has hitherto been used for such purposes. This lamp although applicable to any of the materials or substances now used for illuminating purposes, is more especially designed for burning coal oil and similar substances that are rich in carbon, and which consequently require a large amount of oxygen to support proper or perfect combustion.

Claim.—The case G provided with a cap L, and used with or without the external case T, the case and cap being placed relatively with the frame M, as described, so as to operate as and for purpose set forth.

No. 21,627.—William Mulholland, of Brooklyn, New York.—*Improvement in Lamps.*—Patent dated September 28, 1858.—This invention consists in having a central air tube placed within the lamp, and a wick tube placed at each side of its upper end, and a register at its lower end, the above parts being used in connexion a perforated cylindrical cap, provided with deflectors at the centre of its top plate, whereby, the flame may be supplied with a large volume or amount of oxygen, and the same regulated as occasion may require.

Claim.—The arrangement of the central air tube B extending through the body A of the lamp, and communicating at its lower end with the rack *a*, provided with a register C and perforated plate *a*, with the wick tubes *c c* placed at opposite sides of the air tube B, and the perforated cap D, provided with the deflector *f*, the whole being constructed and operating as and for the purpose set forth.

No. 22,327.—Nathaniel Cradit, of Ripley, Ohio, assignor to Chester G. Robinson, of South Reading, Massachusetts.—*Improvement in Lamps.*—Patent dated December 14, 1858.—This invention consists in the class known as circular wick lamps, and consists—

1st. In an arrangement of draught passages to maintain an equable flow of air to the interior and exterior of the flame, respectively, and to effectually consume volatile matters rising from the oil; and

2d. In an arrangement by which the wick may be inserted and regulated in height with equal facility to a flat wick.

The inventor says: I *claim*, first, the described or equivalent arrangement of draught passages *b* 1 3 communicating with the oil reservoir, and central tube Q conducting the air and gases from thence to the interior of the wick, as explained.

Second. The box M P Q and shell H in the described combination with two rectilinear sets of wick-elevating pinions, or their equivalents, by which two flat wicks are converted into one circular wick, as set forth.

No. 22,409.—William W. Batchelder, of New York, N. Y.—*Improvement in Lamps.*—Patent dated December 28, 1858.—This improvement consists in the use of tapers, or wick tubes, placed below and on both sides of a flat wick tube, or main illuminating burner, in combination with a suitable cap, thus supplying sufficient oxygen completely to burn the oil without a chimney, and also without raising the cap so as to obscure a large portion of the main frame.

Claim.—The small tapers or wick tubes D placed on both sides of

the flat burner or wick tube C, in combination with the cap A, when the said tubes and cap are used without a chimney, substantially as set forth for the purposes described.

No. 20,289.—Oscar F. Morrill, of Boston, Massachusetts.—*Improvement in Aero-vapor Burners for Lamps.*—Patent dated May 18, 1858.—The particular object of this invention is to enable a person to use the areo-vapor or ero-vapor to good advantage in a stove furnace, and easily regulate the amount of the production of hydro-carbon vapor as circumstances may require.

The inventor says: I *claim* the arrangement and application of the bent tube E with the wick-holder or vaporizer provided with one or more heat conductors, or equivalent devices, the same being to enable the production of vapor to be regulated in manner and conducted into the mixer, as specified.

I also claim the mode of applying the rod of the wick-tube slider to the generator, viz: by carrying it through a tube extending through the reservoir of the generator, as set forth.

No. 19,885.—William W. Wade, of Longmeadow, Massachusetts, and Charles Burnham, of Springfield, Massachusetts.—*Improved Lamp Attachment.*—Patent dated April 6, 1858.—A is a wick or tube; B is a spindle, having ratchet surface wheels fixed thereon, working into the wick tube for the purpose of raising or depressing the wick; c is the base which is fitted or secured to the lamp; D is a deflector; E E are series of perforated holes, so as to allow a free admission and circulation of air; F is a groove in the chimney band; G is a flange on the deflector, of such size as to allow it to slide loosely down the inside of the chimney band into the groove F; J is a wire spring for the purpose of holding the band secure to the shell.

The inventors say: We are aware that deflectors or chimney bands have been used; also that chimney bands have been attached to the top of the shell by hinges projecting outward; and also that openings have been used as fasteners for various other and different purposes than described; such we do not claim.

But we *claim* securing the deflector G into the groove of the chimney band J, the said band being hinged to the lamp cap, the whole constructed and operating in the manner set forth.

No. 20,178.—Ralph Thomas, of Hoboken, N. J.—*Improved Lamp Attachment for Preventing Smoke, &c.*—Patent dated May 4, 1858.—This invention consists in attaching to the burner of lamps, a movable metal cap, so constructed as to fit upon the burner and attaching itself to the same, by which the consumption of the oils or fluids is in proportion to the amount of light the lamp is calculated to give, that it regulates the flame and thus by producing checks upon the upper tier of ventilating holes prevents excessive smoke.

Claim.—The movable cap provided with a schreved screen top A, and base piece C, when applied to lamps, constructed and operated as set forth and described.

No. 20,977.—Mark Safford, of Boston, Mass., assignor to Himself and George P. Kinney, of Boston, aforesaid.—*Improvements in Burners and Wick Tubes of Vapor Lamps.*—Patent dated July 20, 1858.—The claims and engravings explain the nature of this invention.

The inventor says: I *claim* the combination of the auxiliary wick with a lifter or rod, or with the same and extinguisher, so as to enable such wick to be moved in its tube in manner and for the purpose essentially as specified.

I also claim, in combination with the vapor generator, and its auxiliary wick tube *f*, a closing cap or extinguisher *a*, and one or more conduits *n n*, applied in the wick tube, substantially in manner as specified, the whole being to produce effects as stated.

I also claim a foraminous wick tube, or its equivalent, in its combination with a main wick and an auxiliary wick applied to it, and to operate with it, substantially in manner as explained.

No. 22,253.—Josee Johnson and Frederick Bailey, of New York, N. Y.—*Improvement in Burners for Lamps.*—Patent dated December 7, 1858.—The two metal tubes *a a* connected at their upper extremity by the circular retort F, which joins to said tubes at point *x x*. The tubes *a a* are made of very thin metal, and the retort F; *m n* are two ordinary tubes, situated on each side of the tubes *a a* and *d*. The tubes *m n* and *d* are provided with wick which extends up in them only to that point where the retort joins them, there being no wick in the retort.

Claim.—The combination in a lamp of the tubes *a a d m n*, glass tubes *c c c*, and barrel B, the same being constructed and operated substantially in the manner and for the purpose set forth.

No. 22,230.—M. B. Dyott, of Philadelphia, Pa.—*Improvement in Burners for Lamps.*—Patent dated December 7, 1858.—This invention consists in so constructing the lamp top of a gas generating lamp, as that the light of said lamp may be regulated by raising and lowering the heater and pin while the head of the burner remains stationary, or raising or lowering the head of the burner with the heater or pin. And it also consists in the valve on the pin, and the valve seat in the side of the tube or burner, for the purpose of opening or closing entirely or partially, the passage through which the vapor or gas passes from the wick to the opening or openings at which the gas burns.

The inventor says: I *claim*, first, regulating the light of a gas lamp by raising and lowering the heater and pin connected to it, while the head of the burner remains stationary, substantially as described.

I also claim, in combination with the heater and burner, the valve or projection *n* on the one, and the valve seat *o* on the other, when the said valve and seat are located between the top of the wick and the openings at which the gas is burned, substantially as described.

No. 20,232.—Thomas Varney, of San Francisco, California.—*Improvement in Burners for Vapor Lamps.*—Patent dated May 11, 1858.—This invention relates to the construction of burners for burn-

ing the vapor of benzole, or other hydro-carbons that can be burned in vapor lamps, in such a manner that the admixture with the vapor of the necessary quantity of air, supplied in such a manner by a blowing apparatus to make it burn with a brilliant flame, shall be effected within the burner, instead of within the reservoir.

Claim.—The arrangement of the tubes *a b e f*, and the passages between them, the burner tip, the wick, and the pipes B C, substantially as set forth.

No. 20,296.—John K. O'Neil, of Kingston, New York.—*Improvement in Burners for Vapor Lamps.*—Patent dated May 18, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The arrangement of the burner beneath the vaporizing tube or chamber in such a manner as to be movable or adjustable to different distances therefrom, whereby the amount of light produced and of vapor generated may be exactly and in all degrees regulated simultaneously, and be mutually dependant on each other, in the manner specified.

No. 20,498.—C. B. Loveless, of Syracuse, New York.—*Improvement in Burners for Vapor Lamps.*—Patent dated June 8, 1858.—The nature of this invention consists in a crescent-shaped generating chamber *d* situated at the crown of a siphon-tube chamber *c*, and in communication therewith, the said chamber being directly above the burner, which is at the extremity of the short branch of the tube; the long branch furnishes the supply of fluid.

The inventor says: I do not claim of itself the burner and chamber on which it is situated.

But I *claim* the crescent-shaped generating chamber *d*, as described, and its arrangement with the siphon-tube chamber *c* and burner *f*, substantially as and for the purposes set forth.

No. 21,053.—George W. Randall, of Boston, Massachusetts, assignor to Reuben J. Todd, of Boston, aforesaid.—*Improvement in Burners for Vapor Lamps.*—Patent dated July 27, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The application of the valve and its seat to the generator A and the button C, or heat absorber, the same consisting in making such valve B and seat tapering, and arranging them in the generator, and maintaining them in contact by the action of a spring E, and connecting the valve with a separate button in such manner that the button, besides performing its office of absorbing heat from the flame, may serve, with the spring, to maintain the valve in place against its seat, and to rotate the valve as specified.

No. 21,116.—Frederick Heidrick, of Philadelphia, Pennsylvania, assignor to C. F. Clothier, of said Philadelphia.—*Improvement in Burners for Vapor Lamps.*—Patent dated August 10, 1858.—This improvement consists in the employment of a loose washer acting in conjunction with the usual wick tube, hollow burner, and button of this class of lamps, in order that the escape of vapor may be regulated

with exactitude and facility, and that its escape may be entirely cut off when the flame is extinguished, thus preventing the escape of fluid.

The inventor says: I lay no exclusive claim to the hollow burner F, the spur H, or to the introduction of the non-conducting material between the tubes A and B; but

I *claim* the employment of the self-adjusting washer I, in connexion with the burner F, button G, and wick tube D, in the manner and for the purpose set forth.

No. 22,270.—E. M. Williams, of Philadelphia, Pennsylvania, assignor to Himself and John Gabel, of said Philadelphia.—*Improvement in Burners for Vapor Lamps.*—Patent dated December 7, 1858.—This invention consists in the use of a sliding wick tube fitted in the cap of the lamp, and placed in close relation with one or more vapor tubes, whereby the latter, by the adjustment of the former, may be heated to a greater or less degree, and an illuminating flame of a greater or less degree of brilliancy obtained, as may be desired.

The inventor says: I am aware that vapor lamps have been constructed in which a supplemental flame has been employed for volatilizing the fluid, but I am not aware that a sliding supplemental wick tube, arranged as shown and described, has been employed for the purpose of graduating the heat employed for volatilizing the fluid within the lamp, and thereby regulating the power of the illuminating flame, as may be desired. I do not claim, therefore, broadly, the employment or use of a supplemental flame for volatilizing the fluid within the lamp.

But I *claim* the supplemental sliding wick tube D, arranged relatively with one or more vapor tubes C, to operate substantially as and for the purpose set forth.

No. 22,465.—Sigourney Wales, of Boston, Massachusetts.—*Improvement in Burners for Vapor Lamps.*—Patent dated December 28, 1858.—The claim and engravings explain the nature of this invention.

Claim.—When the wick is supported on and around an inner wick tube, and within an outer wick tube, and the jet cap is made separate from, and so as to screw or fit on, the outer wick tube, as described, the application of the rod F to the movable jet cap D, and extend into and fit the bore of the tube E, so as not only to enable the jet cap to be raised and supported above the wick, in manner to allow such wick to be inflamed, and the flame thereof to heat the said jet cap and rod, but to serve as a means of conducting heat from the jet cap into the inner tube, by which such heat may be conducted into the wick, in order to aid in vaporing the liquid contents thereof.

No. 20,153.—C. A. Greene, of Boston, Massachusetts.—*Improvement in Vapor Lamp Burners.*—Patent dated May 4, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim a ring or collar having holes through it, turning upon the outside of a shoulder having correspond-

ing holes through it, to form a regulator for a fluid lamp, as this is an old device and cannot be made to operate successfully.

But I *claim* the combination of the hollow spur, susceptible of being turned in either direction, and having slits or apertures formed in it with the cap *d*, through which similar slits or apertures extend, as described, and for the purpose of regulating the jet or jets of flame by the turning of the said spur.

No. 20,324.—Daniel H. Carpenter, of New York, New York.—*Improvement in Vapor Lamp Burners.*—Patent dated May 25, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the device set forth of regulating the quantity of air to be mixed with hydro-carbon vapor, consisting of the screw stop placed in the tube *a*, at such distance below the exit aperture as shall leave the requisite space for the mixing of the gases before reaching said aperture.

I also claim the described improvement in the construction of the valve *c* for the vapor passage, whereby the said passage is kept free at all times, without increasing the size thereof, substantially as set forth.

No. 20,648.—A. M. Mace, of Springfield, Massachusetts.—*Improvement in Vapor Lamp Burners.*—Patent dated June 22, 1858.—In the engravings A is a fountain for containing burning fluid. Near the burner is attached a stop or valve, G, having a packing box, F, and its seat E, and spindle D, made nearly straight where it passes through the diaphragm, to regulate the flow of liquid in minute quantities.

The inventor says: I do not claim a packing of wire cloth, cotton, or any analogous material.

Neither do I claim the use of asbestos, when used as a wicking to act by capillary attraction.

But I *claim* the use of the heating and vaporizing tube or retort charged with asbestos and fluid, in the manner and for the purpose set forth.

No. 21,239.—Solomon Andrews, of Perth Amboy, N. J.—*Improvement in Vapor Lamp Burners.*—Patent dated August 24, 1858.—As a description of this invention is too long for a place in this volume, the reader is referred to the claim and engravings.

The inventor says: I *claim*, 1st., as my invention, the combination of the wick tube, the gas chamber, and the caloric conductors in a gas lamp, as described, or its equivalent.

2d. I claim a cotton or other fibrous wick made hollow by a wire gauze tube, or its equivalent, for the uses and purposes specified.

No. 20,746.—Hiram Todd, of Columbus, Ohio.—*Improvement in Burning Fluid Lamps.*—Patent dated June 29, 1858.—The nature of this invention consists in surrounding the wick tubes B C with a water chamber D, to the end of which is attached a safety-valve F and tube E, surrounding entirely the wick and tubes, thereby preventing any

heated metal, substance, or fluid, from coming into contact with the fluid in the main body of the lamp.

The inventor says: I do not claim the application of a water chamber around the wick tubes of lamps, to apply water to the wick to extinguish the light or any such device.

But I *claim* the arrangement of the water chamber D, with the tubes B C and wick tube I, constructed and operating as and for the purposes set forth.

I also claim the arrangement of the safety-valve F and tube E, with the wick tube I, in the manner and for the purposes specified.

No. 20,641.—Elias J. Hale, of Foxcroft, Me.—*Improvement in Camphine Lamps.*—Patent dated June 22, 1858.—The nature of this invention consists in an improvement whereby the solar cap D is made adjustable with respect to wick tube B, stationary in its relation to the wick C that may be within it, the adjustment being such as to cause the distance between the top of the wick tube, and the orifice in the upper part of the solar cap to be either increased or diminished to such extent as may be desirable in order to prevent the blaze on the wick from smoking.

The inventor says: I do not claim merely making a wick adjustable with respect to a solar cap.

But I *claim* an improved lamp having its wick tube made adjustable and movable with respect to its solar cap, or having the latter made adjustable with respect to the wick tube, the whole being substantially in manner and so as to operate as specified.

No. 20,748.—William W. Wade, of Longmeadow, Mass.—*Improved Method of Fastening the Wick Tubes in Lamp Caps.*—Patent dated June 29, 1858.—The spindle B B, by which the wick is raised or depressed, is fastened by being extended from side to side of the shell through holes of suitable size made for the purpose. The wheels for raising the wick working into the tube through an aperture K K, made for the purpose, prevent the spindle from slipping out of place.

The inventor says: I *claim* the method of fastening the wick tube and spindle for raising and depressing the wick in lamp attachments, without the use of solder, in the manner described.

I claim no other part of the attachment.

No. 22,099.—Irvin A. Williams, of Utica, N. Y.—*Locomotive Lamp Case.*—Patent dated November 16, 1858.—The nature of this invention consists in enclosing the flues of locomotive lamp cases by a combination of casings and deflecting caps for preventing downward draught.

Claim.—The combination of casings B and C with the chimney A, as described, the plates p and p^1 alternating, and the construction and arrangement of the several parts, substantially as set forth.

No. 20,255.—Henry M. Collier, of Binghamton, N. Y. & Henry N. Baker, of New York, N. Y.—*Improved Electric Lamp.*—Patent dated May 18, 1858.—The claim and engravings will explain the nature of this invention.

The inventors say: We do not claim the feeding together of the electrodes in an electric lamp by means of floats, springs or other mechanical appliances, nor the mechanical pole changer as heretofore used, but only as applied to an electric lamp in the manner described.

But we *claim* the employment in an electric lamp of an open seat *i*, contained in a stationary bridge plate *c*, or its equivalent, and receiving the electrode in such a manner as to allow the point only thereof to protrude through it the distance required, and permitting the advance of the said point so fast only as it is oxydized and reduced by the electric current, substantially as described.

We also claim the combination of the loaded tube *b* carrying the upper electrode *c*, the open seat *i*, and the mercury tube *f*, in which floats and is secured the lower electrode c^1, substantially as described, so that while the upper tube *b* feeds the upper electrode down to the open seat as fast as it is reduced, the lower electrode c^1 is also fed up as fast as reduced and kept in its proper position with reference to the upper electrode *c*.

No. 20,373.—George Rimington, of South Brooklyn, New York.—*Improvement in Lamps for Burning Coal-Oil, &c.*—Patent dated May 25, 1858.—A perforated cap in two parts, and used in connexion with two flat wick tubes placed at a suitable distance apart, is used in this lamp, in order that the flame may be supplied with a sufficient quantity of oxygen to support proper combustion without the aid of a chimney. It is especially applicable to lamps in which coal-oil is burned.

Claim.—The cap B formed of two parts *a b*, perforated as shown, and used in connexion with the two tubes *e e*, the several parts being arranged relatively with each other and applied to the lamp so as to operate as and for the purpose set forth.

No. 20,573.—Charles McIntosh, of Jersey City, New Jersey.—*Improvement in Lamps for Lighting Gas.*—Patent dated June 15, 1858.—The nature of this invention consists in forming a flared opening in the base or reservoir of the lantern, in such a manner and in such relation to the flame as to enable the flame to draw a stream of gas from the burner, and ignite the same by simply passing the lantern over the burner.

Claim.—I am aware that openings have been formed in the lower portions of lamps for producing draught and supplying air to the flame, and therefore I lay no claim to this device.

What I *claim* is constructing the lamp with a vertical or nearly vertical passage H through it, when used in connexion with a lantern, substantially as and for the purposes set forth.

No. 19,287.—Robert R. Crosby, of Boston, Massachusetts.—*Improvement in Hydro-Carbon Vapor Lamps.*—Patent dated February 9, 1858.—The nature of this invention will be understood by an examination of the claim and engravings.

The inventor says: I do not claim applying a separate wick tube and wick to a main reservoir and its wick tube, such being for the

purpose of vaporizing the fluid in the wick of the main reservoir by flame generated by combustion of any of the fluid contents of the said reservoir.

But I *claim*, in a hydro-carbon vapor lamp, combining an auxiliary and separate reservoir H with the main reservoir A and its main and auxiliary wick tubes D D G, so that, while a fluid rich in carbon may be used in the main reservoir, alcohol, or a fluid having less or very little carbon, may be used in the auxiliary reservoir, and be burned on the wick thereof extending through the auxiliary wick tube.

I also claim arranging the separate auxiliary reservoir H, of the auxiliary wick, within and separate from the main reservoir, as specified.

I do not claim applying to the auxiliary burner-chamber a closing slide to rotate on the wick tubes D D and regulate the amount of air to be admitted into the said chamber for the ordinary purposes of the flame on the wick.

But I claim the arrangement and application of a flame guard K, constructed substantially as described, to the auxiliary wick-tube chamber, so as to extend and slide around the upper part of said chamber, have such chamber open beneath it, and operate to spread the heat uniformly against the under side of the vaporizing vessel E, substantially as specified.

No. 19,158.—Thomas Shanks, of Baltimore, Maryland.—*Lamp or Candlestick and Match-Box Combined.*—Patent dated January 19, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am well aware that match-boxes, or safes, and tinder receptacles, have been applied, connected to, and arranged with, illuminating apparatus; and also that candlesticks have been formed with depressed receptacles; consequently such attachments and formations I do not claim.

But I *claim* the construction of, and providing lamps or candlesticks with, a hollow base or pedestal part *a a a a*, said hollow base being combined and provided with a sliding self-closing drawer-like arrangement or receptacle *b b b b*, having compartments *c c c d d d*, enclosing chamber *e e e*, constructed, arranged, and operated by the springs *k k k k* and catch-rod *h h*, substantiallyy for the purposes set forth and as described.

No. 22,311.—William F. Shaw, of Boston, Massachusetts.—*Improvement in Lamp-Shade Supporters.*—Patent dated December 14, 1858.—In the improved construction of this lamp-shade supporter, the whole is formed of one piece of metal, the supporter being struck up into form in dies. The bottom of the cup which is thus formed, instead of being cut out, as shown by the space *f*, is stamped out, as shown in fig. 3, leaving the portions 1, 2, 3, 4, 5, 6, of it attached to the rim. The alternate strips 1, 3, 5, are bent up as shown in fig. 2, forming the upper springs; and the other strips 2 4 6 are bent down, forming lower springs, the two sets together answering the same purpose as the springs D.

Claim.—As a new article of manufacture, the lamp-shade supporter

C, with its upper and lower springs constructed of a single piece of metal, in the manner substantially as specified.

No. 20,283.—Horatio N. Macomber, of Lynn, Massachusetts.—*Improvement in Vapor Lamps*—Patent dated May 18, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I am aware of the devices represented in letters patent of the United States dated May 10, 1844, and numbered 3,582, and therefore I do not claim the same.

But I *claim* making the ascending and descending air-passage of the lamp of a series of chambers each connected with the other, and the whole opening out of and into the reservoir of the lamp, substantially as set forth.

No. 20,386.—Horatio Bateman, of Boston, Massachusetts, assignor to William F. Bateman, of Harvard, Massachusetts.—*Improvement in Vapor Lamps.*—Patent dated May 25, 1858.—This invention relates to an improvement in that class of lamps in which gas is generated by heat imparted to a wick which does not come in contact with the flame, the wick being heated, for the purpose of generating the gas, by means of a spur or tongue extending into the wick.

Claim.—Constructing the spur or tongue *e* with a suitable eye for the insertion and retention of the wick, as set forth.

No. 20,649.—A. M. Mace, of Springfield, Massachusetts.—*Improvements in Vapor Lamps.*—Patent dated June 22, 1858.—The nature of this invention consists in providing heating and vaporizing tubes or retorts B A, used for vaporizing hydro-carbon liquids by the heat burners supplied with vapor generated within the tube or retort, with a heat-retaining cover or cap H, so connected to the retort as to retain or reflect the heat upon or around the surface opposite the flame.

The inventor says: I do not claim the use of a heat-retaining cap, connected with a retort of a particular construction, as such a patent was granted to me April 22, 1856, but generally it may be applied to any form of chamber or retort producing the same results.

Neither do I claim the elevated reservoirs, except in connexion with parts mentioned.

Neither do I now claim expanding the vaporizing tube into a chamber, as I intend applying for a separate patent for that device.

What I *claim* is: First. Combining the cap or heat-retainer H with vaporizing tubes or retorts, constructed substantially as described, when so arranged over the flame as to operate in the manner set forth.

Second. I also claim the combination of the heat-retainer H and vaporizing tube, connected substantially as described, with the elevated reservoir, the whole arranged and operating with respect to the valve C^1 and burner K, as set forth.

No. 20,729.—William H. Racey, of St. Augustine, Florida.—*Improvements in Vapor Lamps.*—Patent dated June 29, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The employment or use of a tube H and burner K arranged

with a lamp or fountain, as shown, or in any way, so that the flame which is fed direct from the burning material within the fountain may serve as gas-generator to supply the illuminating flame M that issues from burner K, and this I claim irrespective of any particular means which may be employed for supplying the illuminating flame with oxygen.

No. 20,952.—Nicholas Mason, of Chelsea, Massachusetts.—*Improvement in Vapor Burning Lamps.*—Patent dated July 20, 1858.—The essential features of this invention are a cylindrical sheath *k*, whereby the lighting of the lamp is facilitated, and the safety tube whereby the gas in generated in the lamp itself is conducted directly, and without obstruction, to the point of combustion, thus obviating all danger of its collection and explosion within the lamp.

The inventor says: First. I *claim* the two holes *q q* in the wick tube, for the purposes set forth.

Second. I claim my cylindrical sheath, arranged and operating substantially in the manner and for the purposes set forth and described.

Third. I do not claim cutting off the gas by means of rolling valves, as this is common in steam engines, and in gas and water cocks and other lamps.

But I claim the double row or series of rolling valves contained within the mouth-piece of the burner, arranged and operating in combination with each other, and with the throat-piece of the wick tube, substantially in the manner set forth and described.

No. 21,890.—James Y. Leslie, of Brooklyn, N. Y.—*Improvement in Lamp Wicks.*—Patent dated October 26, 1858.—This improved wick is made by enchaining a series of loops in a single yarn. A loop is first formed, as indicated by 1, and then a second, indicated by 2, is formed without being taken through the first. The third one formed is taken through the first, the fourth through the second, the fifth through the third, and so on indefinitely, as illustrated in fig. 11, where the loops are numbered in their order of formation.

Claim.—A lamp wick composed of a single yarn as double looped, as shown and described.

No. 20,785.—John Fleming, of Pittsburg, Pennsylvania.—*Improved Method of Attaching Lamps to Lanterns.*—Patent dated July 6, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—The combination of the spring D with the clips E E and the ring F, for the purpose of effecting the attachment and detachment at the lamp of a lantern, all substantially in the manner described and shown.

No. 19,207.—Jacob H. Reighard, of Birmingham, Pennsylvania.—*Improvement in Lanterns.*—Patent dated January 26, 1858.—The claim and engravings explain the nature of this invention.

Claim.—Attaching the top and bottom trimmings of lanterns to the globe by means of lugs, fitting on a bead around the upper and lower neck of the glass globe, so that they may be more readily

attached or removed, or a new globe inserted when necessary, in the manner described.

No. 19,897 —Jacob H. Reighard, of Birmingham, Pennsylvania, assignor to Himself, John Baird, and David Challiner, of said Birmingham.—*Improvement in Lanterns.*—Patent dated April 6, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim the coating of the external surface of a portion of the glass globe of lanterns with silver or other metallic substances, for the purpose of giving a reflecting surface.

But I *claim* making a circular convex projection in the side of the globe of the lantern cast or moulded in one piece with the globe, (which is to be silvered externally as a reflector,) the edge of which circular projection is slightly raised from the surrounding surface of the globe, so as to permit of the convenient attachment of a cap or covering to protect the silvered surface of the reflector from injury.

No. 19,845.—A. H. Golden, of Lafayette, Indiana.—*Improvement in Lanterns.*—Patent dated April 6, 1858.—This lantern is so attached to the person carrying it, that he has perfect control of both arms and hands, and, at the same time, has full benefit of the light.

Claim.—The bow or bail B, pivoted to the upper part of the lantern A, and provided with the plate or shield C, and clamp constructed as shown, whereby the lantern may be readily secured to the arm of the person desiring its use, and the person have the control of both arms and hands, and, at the same time, have the full benefit of the light.

No. 21,521.—Stillman C. Spaulding, of Rutland, Wisconsin.—*Improvement in Lanterns.*—Patent dated September 14, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware that patents have been already granted for attaching guards to lanterns without solder, and also for constructing the corner-pieces so as to hold the glass sides without solder, and I disclaim these as any part of my invention.

But I *claim*, first, constructing a lantern by folding the edges of the several parts over wire frames, as described, so that it can be compressed and packed in a small space on removing the glass sides, and in the way set forth, and so that solder is not needed to secure the pieces composing the top and bottom.

Second. The use of a coiled wire in the manner mentioned, to retain the glass sides in their place.

Third. Attaching the lamp of a lantern to a hinged bottom, and connecting the latter to a spring in the top, so as to keep the lamp securely in its place when in ordinary use, yet admit of ready access to it, as described.

No. 21,485.—Joseph C. Cary, of New York, N. Y.—*Improvement in Lantern Attachment to Caps.*—Patent dated September 14, 1858.—This invention consists in a peculiar manner of constructing and attaching a lantern to an elastic or adjustable skull-cap, whereby the

lantern is perfectly adapted to the cap, and allowed to burn equally as well as if held by the hand, and the cap made to fit varying sized heads, the whole forming a perfect device for railroad conductors, miners, and others who, at certain times, require a light and the free use of both hands.

Claim.—The lantern C constructed as shown, to wit: the fountain C and lamp D, connected by the tube *f*, and enclosed within the case d^1, which is provided with the handle or bail, and straps *i j* for the purpose of being attached to the cap A.

No. 21,209.—Max Miller, of Brooklyn, N. Y.—*Improved Lantern for Burning Coal Oil.*—Patent dated August 17, 1858.—The object of this invention is to dispense with the usual draught chimney which has been hitherto necessarily used in lanterns for burning coal oil, by so constructing and arranging certain parts that the usual glass globe or cylinder, which has hitherto only served to protect the flame, serves the double purpose of protector and draught-creator, whereby a more even and steady flame than usual will be obtained.

Claim.—The inverted cup H, provided with the perforated band *m*, and placed over the lamp D, the band *m* encompassing the wick-tube cap *o*, in combination with the glass cylinder C and the tube G, or its equivalent, the whole being arranged substantially as and for the purpose set forth.

No. 20,302.—Adolph Roesler and Charles Frey, of Warsaw, Ill.—*Improved Self-Lighting and Extinguishing Lanterns.*—Patent dated May 18, 1858.—This invention consists in providing the lantern with a box filled with matches, a slider fitted in the lower end of said box, and two arms and springs, and a rod provided with a knob, that extends above the top of the lantern.

The inventors say: We *claim*, first, the box C, provided with spring *d*, as shown, plates L L, springs *i i*, and arms E E.

Second. We do not claim the slide *f*, separately.

But we *claim* the slide F, the rods *k k* and *g*, in combination with arms E E, substantially arranged as described.

Third. We do not claim the extinguisher *p*, separately.

But we *claim* the supporters R R, plates T and U, catch *s*, rod *q*, in combination with the extinguisher *p*, the whole being arranged as described, and for the purposes specified.

No. 19,044.—Albert C. Richard, of Newtown, Conn.—*Improved Attachment for Lighting Lanterns.*—Patent dated January 5, 1858.—This invention consists in having a match socket *c* attached to a spring E, which is secured to the inner side of the door B, and retained or held back by the side of the door by a catch.

Claim.—The spring E, provided with the sockets *c*, and the rod F, provided with the catch *g*, in combination with the rod *i* and corrugated plate *j*, the whole arranged and operated in the manner and for the purpose set forth.

No. 20,404.—William P. Chadwick, of Edgartown, Mass.—*Improved Mantel Bar.*—Patent dated June 1, 1858.—The sloping bot-

tom *b* has applied to it an adjustable smoke chute or guard B, which consists of a plate *d* and two triangular projections or plates *e e*, extended downward from such plate *d*, and near its two ends. The ends extend under lips *f f*, projecting from the mantel bar A, the lips serving to connect the chute and the bar in a manner to allow the chute to be slid along.

Claim.—Making the mantel bar A with an inclined back or bottom, as explained, and combining therewith a sliding or adjustable smoke chute, to operate therewith substantially in the manner as specified.

No. 21,271.—E. Graves Otis, of Yonkers, N. Y.—*Improvement in Ovens.*—Patent dated August 24, 1858.—The claim and engravings explain the nature of this invention.

Claim.—First. The construction of ovens, with the floor upon which the baking takes place running spirally around the inside of the oven, substantially as set forth.

Second. The rotary cylinder D, constructed, arranged, and operating, substantially as and for the purposes set forth.

Third. Placing the spiral chamber in which the baking is performed in communication with the hot air chamber W above the fire chamber, by means of the chamber G and the openings controlled by the dampers *h*, for the purpose of regulating the temperature in the several portions of the said spiral chambers, substantially as set forth.

No. 21,147.—William Pettet, of New York, N. Y.—*Improvement in Bake Ovens.*—Patent dated August 10, 1858.—The nature of this invention consists in so arranging and constructing an oven that it may be heated by an exterior furnace that will also heat the apartment in which it is placed, or by one arranged in such a manner that its heat will be almost imperceptible in the room. Also in so arranging and constructing the lining of the oven that it may be entirely removed to give free access to the flues in every part for the purpose of cleaning, to insure the perfect circulation of the heat from the furnace.

The inventor says: I *claim*, first, the arrangement and construction of an oven with two furnaces, the one being located on the exterior and the other on the interior of the oven, each communicating with the same series of flues so that either one may be used at pleasure, whereby the heat may be retained within the oven or diffused through the apartment, substantially as set forth.

Second. I claim so constructing the interior of the described oven and its flues that the entire lining may be removed, for the purpose of clearing the flues, and replaced, substantially as described.

No. 21,620.—William R. Nevins and Joseph J. Yates, of New York, N. Y.—*Improvement in Bakers' Ovens.*—Patent dated September 28, 1858.—Patented in England September 28, 1858.—The nature of this improvement consists in arranging the endless apron for the conveyance of the biscuit or other articles to be baked within a horizontal chamber or oven having a metallic top and bottom above and below, which are horizontal flues, communicating at their ends for the passage of the heat, &c., from the furnaces below, and dividing the said lower flues

and furnaces by a transverse bridge wall in such a manner as to enable the heat to be conveyed below the oven in both directions from the furnaces in the centre to the ends, and thence again through the upper flue to the centre exit pipe or chimney, thereby imparting to the upper and lower plates of the oven an equable degree of heat during the intermittent progressive motion of the cutting machine apron, to which said apron may be geared if desired, and preventing ashes, dust, smoke, and other extraneous and injurious matters coming in contact with the biscuit or other bread stuff being baked.

Claim.—The combination and arrangement of the endless apron H^1 and hexagonal rollers H, to which an intermittent progressive motion corresponding with the motion of the apron of the cracker or biscuit-cutting machine is given, horizontal flues K K^1 and bridge-wall B, between the lower flues K and furnaces R, substantially in the relation to each other described, and for the purpose set forth.

No. 21,610.—Hamilton Lyon, of Cincinnati, Ohio.—*Improved Method of Heating Ovens by Steam.*—Patent dated September 28, 1858.—This invention relates chiefly to the preservation of a constant, equable, and controllable heat in an oven, and consists in certain modes of availing and applying super-heated steam or air circulating within an enclosing shell or jacket.

Claim.—The combination of the pipes F E G and H, chambers B and C and exhaust I or their equivalents, arranged and employed substantially in the manner and for the purposes set forth.

No. 19,591.—Thomas T. Tasker, of Philadelphia, Pa.—*Improvement in Hot Water Radiators.*—Patent dated March 9, 1858.—A represents a single series of tubes of the radiator composed of a number of tubes *a*, joined together and having free communication with each other by means of the tubes C D and the end of the terminal sections E. These sections are fitted to each other by the shoulder and flange joints F F and are bound firmly together by the "through-bolt" H, which passes through all the sections, and tightened by the nuts K.

The inventor says: I am aware that sections of tubes with and without flange and shoulder joints have been secured together by through-bolts, and I lay no claim to this mode of securing parts of a tube together.

But I *claim* the mode of securing together the several divisions or systems of radiator tubes, as set forth, the same consisting in the employment of the four terminal sections E to each division, the whole being held together by the through-bolts H, as set forth, thereby affording great facility in setting up the radiators and in taking them apart.

No. 22,289.—John H. Holt and Josiah H. Gerould, of Chicago, Ill.—*Improvement in Steam Radiators.*—Patent dated December 14, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The combination of the wire-gauze burner B and its vapor hood D, applied to the self-acting boiler C, above described, connected,

as described, with the steam condensing cylinder I and its reservoir J, air-cocks and safety and vacuum valves and its tubes and radiators M, with their ends open in the apartment to be heated, and all of which are particularly described and governed by the gas regulator H, as described; which combination produces a new and improved self-acting and self-regulating apparatus for raising the temperature of any given apartment in which it may be set up by radiation from surfaces heated by condensation of steam generated by the flame of combustible gas.

No. 20,132.—Charles Williams, of Brooklyn, N. Y., assignor to Himself and Charles J. Sheperd, of said Brooklyn.—*Syphonic Radiator.*—Patent dated April 27, 1858.—This invention consists in the use of an inverted syphon, composed of a descending and ascending limb so proportioned to each other that the superior force of the air in the ascending limb, or limbs, shall cause a downward circulation through the descending limb.

The inventor says: I do not claim a hot air chamber or retort placed in a furnace over the fire and supplied with air by a pipe, or pipes, placed nearly horizontal, as such have before been used. Neither do I claim inducing a downward circulation of the products of combustion, as this has heretofore been used, both in the flues of chimneys, furnaces, &c.

But I *claim* the syphonic circulating and radiating pipes formed of two or more vertical or nearly vertical limbs, attached at their upper ends to the shell or casing of the furnace, and connected at their lower ends to each other, and operating substantially as and for the purposes specified.

No. 20,064.—A. Hendricks, of Morisania, N. Y.—*Improved Combination Cooking Range and Gas Generator.*—Patent dated April 27, 1858.—This invention consists in an arrangement embracing a cooking range, which has two fire chambers, two draught flues, and suitable dampers, when used in connexion with a gas retort, which opens on the outside of the room in which the range is located. The fire chamber, which heats the retort, can be used at stated periods in order to generate gas and at the same time heat the range, and the other fire chamber can be used daily for simply heating the range, and without acting on the retort.

Claim.—The arrangement embracing a cooking range, which has two fire chambers B B^1, two draught flues D D^1, and appropriate dampers, when used in connexion with a gas retort opening on the outside of the room, substantially as and for the purposes set forth.

No. 21,608.—Charles Kane, of New York, N. Y.—*Improvement in Combined Cooking Range and Heating Apparatus.*—Patent dated September 28, 1858.—This range is constructed with a fire grate in the centre of the front E, with ovens D D D, on each side of it. The direct draught *a a a*, from the fire box, or grate, is so arranged that it may be closed by dampers. The direct draught being closed the heat passes over the top *b b b*, of the ovens in the direction of the arrows, thence down the outsides of the ovens through flues *c c c*,

between the ovens and the walls of the range, thence through flues or spaces *d d d*, under the bottoms of the ovens; thence down and under the ovens in flues or spaces *e e e*, immediately under the last named flues to the back of the range, and thence into the smoke pipe or chimney *g g g*.

Claim.—The arrangement of an air chamber C, under a whole range, with a flue or flues B B, connecting it with the hot air chamber A, together with the double flues *d d d d*, *e e e e*, in double tiers between the air chamber C, and the bottom of the ovens D D, through and in which last mentioned flues the combustible gases and smoke circulate before reaching the smoke flues *g g*, the whole constructed and operating substantially as and for the purposes above set forth.

No. 22,120.—Joshua Harrison, of New York, N. Y.—*Improvement in Cooking Ranges.*—Patent dated November 23, 1858.—The nature of this invention consists in so constructing and arranging of the range that nearly the whole heat from the fire shall be retained in the range, thus rendering a much smaller fire sufficient to perform a given amount of work or cooking; and in so constructing and proportioning the top plate of the range that vessels can be kept constantly boiling and cooling without soiling or injuring them.

The inventor says: I *claim* the arrangement and combination of the flues *c* and F with the breaks or parts G, 1, and 2, substantially as described, and the damper *f*, in connexion with the main flues F F, directly underneath the fire, for the uses and purposes set forth.

I claim also the arrangement of the broiling grates H H, with the flue *c*, for the purpose of applying the heat of such fires directly to and making it effective in heating that part of the range most distant from the principal fire.

I claim also the construction and arrangement of the top plate D, as described, by which the front and back rails *o o*, are made a part of the body of the range, while the central part of such plate is made in separate sections, the back rail being also a base or foundation for the mason work, as set forth.

No. 19,368.—James Ingram, of New York, N. Y.—*Improvement in Water Backs for Ranges.*—Patent dated February 16, 1858.—The nature of this invention will be understood from the claim and engravings.

The inventor says: I *claim* arranging the water back and parts connected with and supporting the same in substantially the manner specified, so as to allow the said water back to be moved away from the fire or be brought in contact with the same without disturbing the pipes and connexions, substantially as and for the purposes specified; and in combination with said movable water back I claim the lever *k* and weight 9, to move the intervening soap-stone or fire-brick, substantially as specified.

No. 21,702.—Joseph Schmadel, of Dayton, Ohio.—*Improvement in Cooking Boilers for Ranges and Stoves.*—Patent dated October 5, 1858.—This invention consists in having the lower part of the boiler,

or kettle, or other vessel, provided with a series of tubes placed around the vessel at its inner side and communicating with the fire when the vessel is placed on the stove or range, the upper ends of the tubes communicating with a chamber which encompasses the upper part of the vessel, said chamber being connected with the flue or pipe, and formed by having the upper part of the vessel constructed with double sides.

Claim.—The new manufacture of cooking boiler for stoves and ranges described, to wit: a cooking boiler provided with perpendicular tubes or flues around its sides, from the bottom upward, and opening into a horizontal flue or chamber around the top of the boiler for the blaze and smoke to pass through, substantially as described.

No. 20,589.—William F. Shaw, of Boston, Massachusetts.—*Improved Light Reflector.*—Patent dated June 15, 1858.—The claim and engravings will explain the nature of this invention.

Claim.—A foraminus reflector or lamp shade made of conducting or slowly conducting material, constructed substantially in manner and so as to operate as described, both as to the reflection of light and the dispersion of heat and light.

No. 20,106.—Edward A. Tuttle, of Brooklyn, New York.—*Improvement in Warm Air Registers and Ventilators.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim any feature seen in the device of W. G. Cook, 1848, S. P. Munson, 1853, or the patent of George Pollock, 1847.

But I *claim* an improved article of manufacture, a warm air register made as herein set forth, viz: the frame B B, having lugs *l l*, and recesses *f f*, and the end pieces C, provided with lugs e^1, for the reception of screws *k*, the ledge or step and openings p^1 p^1 p^1 for the leaves, all substantially as shown, when combined with a mechanism for operating the leaves.

No. 21,416.—Theodore Heerman, of Mitchellville, Tennessee.—*Improvement in Coffee-Roasters.*—Patent dated September 7, 1858.—The nature of this invention consists in the employment of two reversely inclined plates which have a space existing between their approximating ends on the inner circumference of a revolving coffee-roasting cylinder, which has its inner surface made otherwise plain, or furnished with a straight lifting shelf.

Claim.—The employment of two reversely inclined concentrating plates, which have a space existing between their approximating ends on the inner circumference of a revolving coffee-roasting cylinder, substantially as and for the purposes set forth.

No. 21,845.—Charles John Christian Petersen, of Davenport, Iowa.—*Improvement in Coffee Roasters.*—Patent dated October 19, 1858.—The nature of this invention consists: 1st. In supplying the coffee drum with a damper *e e*, whereby the heat is at pleasure diffused

over the surface of the drum in the process of roasting the coffee, or is excluded from it. 2d. In furnishing the slide door of the coffee drum *g* with a self-adjusting lock *h*.

The inventor says: I *claim* the application of a damper constructed and operating substantially as set forth to the drum of a coffee-roaster.

I also claim the spring catch *h* and block *n*, in connexion with the sliding door of the drum, constructed and operating substantially as described.

No. 21,387.—Samuel Tower, of Grand Rapids, Michigan.—*Improved Apparatus for Roasting Coffee.*—Patent dated August 31, 1858.—This improvement consists in having a portion of each of the journals, or axes of the contrivance, attached to each sphere, so that when the spheres are closed the axes will be completed and the parts will be locked together.

Claim.—Having a portion of each of the journals or axes B C attached to each sphere or shell *a b* and otherwise arranged and combined as set forth, so that when the spheres or shells are closed, the axes or journals will be completed, and the shells will be locked, all as and for the purposes described.

No. 21,119.—John B. Cornell, of New York, N. Y.—*Improved Safety Guard for Safe Doors.*—Patent dated at August 10, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* arranging a safety guard within the door of an iron safe in such a manner with relation to the lock or locks, and the fastening bolts which are combined with said door, that the act of forcibly displacing the said lock or locks from its or their proper position on a locked door will cause the said safety guard to be thrown into such a position that it will securely hold the said fastening bolts in an extended position from the moment that the lock bolts cease to exert a retaining action on the said fastening bolts, all substantially as set forth.

No. 19,111.—John B. Creemer, of New York, N. Y., assignor to Himself and S. Dwight Humphrey, of New York, N. Y.—*Improved Match Safe.*—Patent dated January 12, 1858.—The nature of this invention consists in a grooved cylinder at the bottom of a closed hopper, in connexion with an inclined plate or slide, in such a manner that on turning the said cylinder will be delivered, one at a time, on to the incline and slide down the same, ready to be picked up and lighted.

Claim.—The grooved cylinder *b*, in combination with the hopper C and inclined slide 3, to deliver one match at a time, substantially as specified.

No. 20,989.—Ira L. Cady, of New York, N. Y.—*Improvement in Plates for Burglar-proof Safes.*—Patent dated July 27, 1858.—The nature of this invention consists in forming a burglar-proof plate, by the combination of a stratum of molten iron with one or two per-

forated plates made of wrought iron, to be used in the construction of safes, &c.

Claim.—Forming a burglar-proof combination plate by the union of a stratum of molten iron with one or two perforated face plates *a c*, of wrought iron, substantially in the manner represented and described.

No. 19,923.—John T. Garlick, of New York, N. Y.—*Improved Water and Fire-Proof Safe.*—Patent dated April 13, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I do not claim making a safe either fire-proof or water-tight, nor making it sufficiently buoyant to float in the water in case of necessity.

But I *claim*, first, combining a series of air cells or spaces with a filling of non-conducting material, in a safe having a door or doors closing water-tight to render the same sufficiently buoyant to float on the water, and also to resist the action of heat and prevent the heat communicating to the articles stored in the safe, in the manner set forth.

Second. The combination of the safe, constructed and arranged as described, with the loose bed or bottom piece H, as and for the purposes set forth.

No. 21,405.—Louis D. Bartlett, of Boston, Massachusetts.—*Improvement in Coal or Ashes Sifters.*—Patent dated September 7, 1858. The object of this invention is to construct the covers of vessels used as receptacles for ashes so that when sifting cinders in a common circular coal seive, of the kind and size usually sold, it can be used in such a manner as will prevent the escape of dust and allow the ashes to pass at once into the vessel without further handling.

Claim.—The inventor says: I do not claim using a circular seive on top and fitting into the vessel, to be rotated back and forth, for that is old and well known.

But I *claim* using the annular ring A, and the cover B, in combination with the seive, substantially as described.

No. 20,909.—William Webster, of Jefferson county, Washington Territory.—*Improved Smoke Stack for Steam Vessels.*—Patent dated July 13, 1858.—The nature of this invention consists in the arrangement whereby is increased the draught while diminishing the height of smoke stacks for steam vessels; keep the outer shell cool; exclude rain; and divert the heat and cinders from the masts, sails, and rigging.

Claim.—First. The arrangement of two or more pipes D D D, &c., within an outer shell B, as described.

Second. The application to a double shell smoke stack of the registers L L, &c., as and for the purpose described.

No. 19,240.—Rufus Dawes, of Washington, D. C.—*Improvement in Stoves.*—Patent dated February 2, 1858.—The nature of this invention consists in so constructing the burner (which consists

of grates or cylinders, the one within the other) that the coal or other fuel shall be placed between concentric circles, or between similarly disposed boundaries of other forms, made of iron, or other suitable material, so that there may be an abundant supply of oxygen around and within the fuel, the two currents of air meeting and concentrating by means of the cylinder *b*.

The inventor says: I *claim* the combination of the outer bars *e* and the inner bars e^1, arranged so as to admit an air passage *g*, through the fuel, and an air passage k^1, between the outer bars and the casing *b*, for the purpose of supplying the inner and outer surfaces of the fuel with air, by which arrangement the combustion of smoke is effected.

No. 19,796.—Silas T. Savage, of Albany, New York.—*Improvement in Stoves.*—Patent dated March 30, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I am aware that stoves have been constructed with grates open all around, or basket-wise, so as to use the radiant heat from the back of the fire for roasting or other cooking, but that arrangement does not effect either one of the objects of my invention as stated, and I therefore disclaim any such construction or arrangement of grate and stove.

But I *claim* in furnaces or stoves the employment of a receptacle for the fuel, closed at front and partially at bottom, with open grate bars for a part of its bottom and for the rear, opening into an air or draught chamber between them and the back plate of the fire-chamber, substantially as described in the specification and for the purposes set forth.

No. 20,274.—Joseph C. Henderson, of Albany, New York.—*Improvement in Stoves.*—Patent dated May 18, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

Claim.—The chamber G, contracted at the top so as to produce and maintain while in action a plenum within the combustion chamber when used in combination with the exterior chamber and connected by partition D D, as described, for the purpose of preventing the escape of the volatile combustible from the combustion chamber before its combustion is consummated.

No. 20,389.—Charles Hoofstatter, of Rome, New York, assignor to Joseph Firman, of said Rome.—*Improvement in Stoves.*—Patent dated May 25, 1858.—This invention consists in constructing and so arranging the stove as to bring the heat to bear mainly on the ovens, by causing it to pass around, over, and under them previous to its reaching the upper compartment or escaping up the chimney.

Claim.—The flues H H^1 and H^2 and partition J J^1, in connexion with the ovens I and I^1, when the whole are arranged in relation to each other in the manner as and for the purposes set forth.

No. 20,466.—J. S. Brown, of Washington, D. C., assignor to Himself and Joseph Kent, of Baltimore, Md.—*Improvement in Stoves.*—Patent dated June 1, 1858.—The nature of this invention consists in

utilizing a portion of the heat escaping through the smoke pipe D by heating therewith the draught of air supplied to the burning fuel to support the combustion thereof. This improvement may be applied to stoves and furnaces of all kinds. Instead of having the draught pipe C within the smoke pipe D, the latter may be within the former.

The inventor says: I do not claim simply heating the draught air before it reaches the fire chamber.

Nor do I claim heating the draught air by contact with a smoke passage situated within the stove, the application of my invention being only to a smoke passage situated outside of the stove; that is, to what is understood by the term smoke pipe.

Therefore I *claim* introducing the air which supports combustion of the fuel in the stove, through, around, or otherwise in contact with the smoke pipe, whereby a portion of the heat escaping said smoke is utilized in improving the combustion of fuel.

I also claim the valve I, arranged and operating in combination with the draught pipe *c*, substantially as specified.

No. 21,103.—Joseph H. Wilkinson, of Concord, New Hampshire.—*Improvement in Stoves.*—Patent dated August 3, 1858.—A is the outer casting or body of the stove, surrounding a flame chamber or fire pot; B is the base of the stove formed of two plates about four inches apart, having two vertical plates running from C to D. By this arrangement the heat is thrown to the front of the stove; thence through the centre to exit pipe E; thus warming the whole bottom of the stove.

The inventor says: I do not claim a ventilating stove or a stove for burning the gases by admitting oxygen.

What I claim is, first, the arrangement of pipe K within pipe E and damper L, constructed and operating as and for the purpose described.

Second. I claim inserting the air chambers J J, constructed as described, in the linings of the fire-pot for the purpose set forth.

Third. I claim the holes *m m*, in connexion with the bed plate O, provided with the arch piece S, or their equivalents, for the purposes substantially as set forth.

No. 21,084.—Andrew Ralston, of West Middletown, Pennsylvania.—*Improvement in Stoves.*—Patent dated August 3, 1858.—The nature of this invention consists in an arrangement for regulating and throwing the draught to either side of the stove, and for carrying the heat a number of times around the cooking vessels; and also in an arrangement of the chambers 1 and B, and the regulating valves *e* of the fan on the collar of the stove where the pipe is usually attached.

The inventor says: I *claim*, first, the arrangement of the side chambers 1, the centre chamber B, and the regulating valves *e* of the fan on the collar of the stove where the pipe is usually attached, as described and set forth.

Second. The arrangement of the curvated bearing *w*, the opening 4, the cam rachet *g*, the rachet pawl *f*, the damper *p*, with its three journals, and the division plate o^1, as described and for the purpose set forth.

Third. The arrangement of the plates m^1 and m^2, with their division pieces x, and the openings 5, and the large openings for the cooking vessels, as described, and for the purpose set forth.

No. 21,191.—Cornelius O. Foley, of Troy, New York.—*Improvement in Stoves.*—Patent dated August 17, 1858.– The claim and engravings explain the nature of this invention.

The inventor says: I *claim*, 1st. The arrangement within the outer casing of the stove of the chambers G D, descending and ascending flues H H^1 J J^1, and exit pipe C, with the open front combustion chamber B, provided with the opening F, as described, whereby what is known as the "Franklin stove" is made a good radiator without materially impeding its draught, as set forth.

And I also claim the division plates E furnished with the opening F, and constructed and arranged in combination with the chambers D D, flues H H^1 J J^1, smoke pipe C, and fire chamber B in the stove, substantially as and for the purposes set forth.

No. 21,446.—Silas T. Savage, of Albany, New York.—*Improvement in Stoves.*—Patent dated September 7, 1858.—The engravings represent a cylindrical hall or parlor stove externally of the form in use at the present time, the external shell or cylinder being represented as having the half next the spectator and a portion of the hearth and side of the ash pan removed, in order to show the internal structure. The grate with its dome is shown in perspective.

Claim.—The combination of an open cylindrical or basket grate, with a dome, or a cone-shaped cover placed within an outer chamber, having a register for the admission and regulation of a current of air between the grate and the walls of said chamber, arranged near the bottom of the chamber, substantially as the same is described and for the purposes set forth in the specification.

No. 21,938.—J. H. Buchanan, of New Concord, New Hampshire.—*Improvement in Stoves.*—Patent dated November 2, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The arrangement, consisting of the concave bed or ash pit A, of larger diameter than the grate, and constructed with supporting lugs or ledges *a a*, semi-spherical open top grate or fire chamber C *b b*, with draught space *m* existing between it and the ash pit or bed A, and flaring stove-pipe D appearing as a continuation of the grate, and furnished with a transverse feed and draught door F, and arranged above the fire grate, and made adjustable in a vertical line with the fire grate on a vertical standard, all for the purposes stated and substantially as set forth.

No. 22,250.—Charles Hartwell, of Boston, Massachusetts.—*Improvement in Stoves.*—Patent dated December 7, 1858.—This invention is a portable cooking apparatus, so provided that it may, if desired, be put in communication with the external air, so that it may be made to ventilate the apartment or the building.

The inventor says: I *claim*, in connexion with the evaporating

vessel E, or its equivalent, for supplying vapor to the air, the described arrangement of the parts of my stove, consisting of the fire pot A, lower chamber B^1 D^1, receiving pipe *d*, tubes *c*, and oven, or other cooking vessel F, arranged in relation to each other, substantially in the manner and for the purposes described.

And, in connexion with the above, I also claim the aperture *a* leading from the interior of the case B to the ash pit, in the manner and for the purposes described.

No. 22,277.—John S. Clark and Washington Harris, of Philadelphia, Pennslyvania.—*Improvement in Stoves.*—Patent dated December 14, 1858 —This invention consists in combining with adjustable air passages through the shell of the stove at the upper end of the interior cylinder or lining of the fire surface a section of a hollow annulus, with perforations for allowing the heated air to pass through and among the products of combustion, the hollow annulus resting upon the top of the lining by its one edge, the other edge being against the shell of the stove, and thus forming a chamber.

Claim.—Combining with the adjustable air passages at the top of the interior cylinder or lining the section of the hollow annulus, with perforations, its lower edge resting upon the inner edge of the lining, and its upper edge against the shell plate, and thus forming an air chamber, as set forth.

No. 22,276.—John S. Clark, of Philadelphia, Pennsylvania.—*Improvement in Stoves.*—Patent dated December 14, 1858.—This invention consists in combining with adjustable air passages through the shell of the stove at the upper end of the interior cylinder or lining of the fire surface a section of a hollow annulus, with perforations for allowing the heated air to pass through and among the products of combustion, the hollow annulus resting upon the top of the lining by its one edge, the other edge being against the shell of the stove, and thus forming a chamber.

Claim.—The movable plate *d*, as it is arranged with and has relation to the grate, the usual back plate *f*, the air passages *i i*, and the passage for the products of combustion, as set forth.

No. 22,342.—R. W. Belson, of Philadelphia, Pa.—*Improvement in Stoves.*—Patent dated December 21, 1858.—Around the base of the fire pot is constructed an annular chamber *a*, having a vertical partition *b* and an opening *c* on one side of *b*, communicating with the air of the room; on the other side of *b* is another opening *d*, communicating with the vertical passage *e* made in the outside of the fire pot. This passage communicates with the annular chamber *f* surrounding the top of the fire pot, this chamber *f* being pierced on its inner side with numerous small holes *g*, through which the heated air is to pass to impinge upon the gases arising from the fuel. Leading upward from the passage *e* is a pipe *h*, which is to convey a stream of hot air directly to the escape pipe *i*.

The inventor says: I am aware that an annular chamber with air

jets above a fire for consuming gases is an old and well known device, and I therefore limit my *claim* to the improvement described, to wit:

The combination of the air chamber *a* surrounding the base of the fire pot with the annular chamber *f* at the upper part of the fire pot, as described.

I also claim the jet pipe *h* in combination with the annular chamber *a* and escape pipe *i*, as described.

I also claim the adjustable heater *r*, constructed, arranged, and operating over the fire, substantially as described.

No. 22,392.—David Wells, of Lowell, Massachusetts.—*Improvement in Stoves.*—Patent dated December 21, 1858.—This invention consists in a peculiar arrangement of flues, an air heating chamber, and smoke chamber, whereby the combustible portion of the products of combustion is brought in contact with a suitable portion of heated atmospheric air, and ignited in a chamber separate from the fire chamber, but by the heat or fire therefrom.

Claim.—The arrangement of the flues D^1 D^1, smoke chamber E, air-heating chamber G, and fire chamber B, the latter communicating with the smoke chamber by means of the perforations *b*, and the smoke chamber communicating with the air-heating chamber by perforations *a*, substantially as and for the purpose set forth.

No. 22,416.—Nelson Edwards, of Chittenden county, Vermont.—*Improvement in Stoves.*—Patent dated December 28, 1858.—"I," in the figure 3, shows a sectional view of hydro-atmospheric jet, whose office is to dispense in small jets, through orifices in its surfaces, combined atmospheric air and watery vapor among the exsiccated gasses that rise into the gas chamber; the gas chamber is that part of the furnace above the smoke flue and fuel port in which the apparatus is situated, and thus by furnishing a limited and constant supply of watery vapor to the gasses, convert them into hydro-carbons, and by a rich supply of oxygen from the watery vapor, and also from the air, enable them to burn up and yield an amount of heat instead of passing away by the draft unconsumed.

The inventor says: I *claim* the application to a stove of an improved combined hydro-atmospheric jet and gas chamber.

I also claim the stove containing coiled smoke pipe in its combination with the plurality of stove walls, substantially as described.

No. 21,445.—Silas T. Savage, of Albany, New York.—*Improvement in Coal Stoves.*—Patent dated September 7, 1858.—A A A A is the magazine for fuel, A A B B D the fire chamber, G the grate, C the ash pit. The fire chamber projects back of the main body of the stove and the flues or radiators R R rise up above the projection and enter into the upper chambers of the stove E, carrying thither the products of combustion, whence they pass out by the pipe H. The supply of fuel is put in through the top door I and the door K below it. The draught is supplied from the ash pit C and from the upper and lower registers M and N, the lower register being ordinarily

used, but whenever it is desired to increase the fire the upper one is used which brings a larger amount of fuel in the line of the draught of air.

Claim.—The combination of the magazine, radiators, and the air chamber at the base of the radiators, as arranged in reference to and with each other, substantially as set forth and described in the specication.

No. 21,731 —Joseph M. Babcock, of Albany, New York.—*Improved Hot Air Cook Stove.*—Patent dated October 12, 1858.—The nature of this invention consists in the arrangement of the perforated side plates, the double bottom, and the elevated oven.

The oven is made double except at the ends, and the hot air which rises from the double top passes around the oven and passes into the smoke pipe. The flue around the oven is stopped by a plate on the back side near its exit, in order that the air may be made to pass around at all times in one direction. This stove is provided with two side plates A A^1, the inner plate being solid.

The inventor says: I am aware that perforated side plates are not new, and also that elevated ovens are not new, and also that double top plates have been used, with apertures communicating with the fire.

I am also aware that hot air has been used and passed around the oven by Silas T. Savage, for the purpose of cooking; hence I do not claim any of these in this application.

Neither do I claim the form and construction of the oven.

But I *claim* the combination of the double top, the perforated side plates, and the elevated oven, the same being arranged and operated in the manner and for the purpose described.

No. 19,650.—Christian Raub, of Davenport, Iowa.—*Improvement in Cooking Stoves.*—Patent dated March 16, 1858.—In the engravings D E F G are four separate cooking stoves which are heated simultaneously by the fire in the chamber A; each of these stoves are provided with an oven H, with doors I; K is a water chamber, through the centre of which passes the stack L, through which the fuel is fed into the stove; M is the smoke stack; N the pipe for the escape of smoke; L M the draft of air through the grates *a*, which are regulated by the sliding dampers C.

The inventor says: I would state that letters patent were granted to me on the 20th of October, 1857, on a stove, in which I have claimed the combination of the feeding stack with the spreading cone, and the simultaneously acting dampers. I therefore do not lay claim to these here.

But I *claim* the arrangement described of the series of stoves, fed by one central stack, and provided with one central smoke stack and a central water boiler, substantially in the manner and for the purpose set forth.

No. 19,651.—Christian Raub, of Davenport, Iowa.—*Improvement in Cooking Stoves.*—Patent dated March 16, 1858.—The kindling material is placed upon the grate *a* through the aperture *m*. The

cover *p* is then raised, and the coal is fed into the stove through the trunk H, and falls down upon the spreader G. When the fire is kindled the atmospheric air enters the stove, as seen in the engravings *o* and *z*, and the heated gases pass through the flues which surround the ovens C D E F and escape through the pipe M.

Claim.—The arrangement of the feeding trunk and its water chambers in combination with the fire chamber, ovens, and flues, for the escape of the gases of combustion, substantially in the manner and for the purpose set forth.

No. 19,956.—James Spear, of Philadelphia, Pennsylvania.—*Improvement in Cooking Stoves.*—Patent dated April 13, 1858.—This improvement relates to the means by which minute jets of heated air are introduced at pleasure into cooking stoves, or ranges, immediately above the ignited fuel, for the purpose of aiding the conversion into flame of the greater portion of the gaseous products of combustion, which would otherwise pass off through the flues without being consumed.

Claim.—The hollow centre piece *p*, when connected with the hot air tube *t*, and constructed in the manner and for the purposes set forth.

No. 20,265.—Rensselaer D. Granger, of Philadelphia, Pa.—*Improvement in Cooking Stoves.*—Patent dated May 18, 1858.—This invention consists in arranging an oven, constructed of burnt fire clay, or other material capable of absorbing and retaining heat, with an ordinary cooking stove, in such a manner that the products of combustion may be caused to pass either through the said oven or around the same. In connexion with the clay lining is an annular perforated tube M and air-pipe N, so constructed and arranged that the unconsumed gases in the products of combustion shall be ignited before they pass into the interior of the oven.

The inventor says: I *claim*, first, combining an oven, constructed of burnt fire clay, or other equivalent material capable of absorbing and retaining heat, with an ordinary cooking stove, in such a manner that the products of combustion may pass either around or through the interior of the oven for the purpose specified.

Second. The arrangement of the annular perforated tube M and its air-pipe N, with the lining G, the same being arranged substantially as and for the purpose set forth.

No. 20,450.—James Spear, of Philadelphia, Pa.—*Improvement in Cooking Stoves.*—Patent dated June 1, 1858.—The nature of this invention consists in the construction of centre pieces A B, covers M M, and top plates D on cooking stoves and ranges, to prevent them from being affected by excessive heat; and also for the introduction of small jets of heated air directly over the fire, for the purpose of igniting the gas arising from the coal.

The inventor says: I *claim*, first, the adjustable hollow front and middle centre pieces A and B, perforated on the lower side, arranged and constructed in the manner set forth and for the purpose described.

Second. I claim the curved plate D, with lip *i*, when connected with front plate H and top plate G and hollow centre pieces A and B, or their equivalents, constructed in the manner and for the purpose set forth.

Third. I claim the hollow covers M M, constructed in the manner set forth and for the purpose set forth.

Fourth. I claim the combination of the covers, as constructed with the centre pieces as constructed, substantially as set forth.

No. 20,430.—Marcus L. Horton, of Claremont, N. H.—*Improvement in Cooking Stoves.*—Patent dated June 1, 1858.—The air, coming in through the dampers D D, passes through the tube G, where it is heated, and then enters the open space O; by opening the register H, it is let into the oven for baking purposes; then by opening the register I it will pass into the air chamber M, and then through register J and the rear damper into the pipe.

Claim.—The arrangement of the register C, dampers D D, hot-air chambers O and M, and register H I and J, for admitting, controlling, and regulating the heated air, as set forth.

No. 20,682.—George G. Richmond and George W. Pittock, of Troy, N. Y., assignors to Themselves, C. Phelps, and J. Lown, of said Troy, and said Pittock having assigned his interest in the same to D. B. Carver, of same place.—*Improvement in Cooking Stoves.*—Patent dated June 22, 1858.—The nature of this invention will be understood by reference to the claim and engravings.

The inventors say: We *claim*, first, the arrangement of the passages J, provided with dampers C, with hot-air chamber D and slide K or L in the oven C, as described, whereby the intensely hot air of the chamber D may be directly applied to the otherwise insufficiently heated under side of articles baking upon the slide, and to the upper side of those on the oven bottom.

Second. We claim, in combination with the fire-pot A, plate M, chamber D, passages J, and slide K or L in the oven C, arranged together in the stove as described, the top plate E of the oblong hot-air chamber D, constructed substantially as represented, whereby the heat of the air admitted into the oven between the two tiers of articles baking is augmented.

No. 20,668.—Samuel B. Spaulding, of Brandon, Vermont.—*Improvement in Cooking Stoves.*—Patent dated June 22, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I do not claim any particular form or construction of stove.

What I *claim* is the extending of the bottom of the stoves and flues G H H at the back end, so as to form a boiler seat for the reservoir E, so that by the peculiar arrangement of the sliding plate or damper F the reservoir can be heated at pleasure without affecting in the least the other operations of the stove.

No. 20,733.—Silas T. Savage, of Albany, New York.—*Improvement in Cooking Stoves.*—Patent dated June 29, 1858.—The object of this invention is to permit the use of bituminous coal to effect the

heating of the oven without the consequence of fouling the flue surrounding it with the fuliginous matter passing over in the smoke of that kind of coal.

The inventor says: I do not claim the employment of hot air to heat an oven.

But I *claim* the arrangement of air tubes *t t t* across the main flue of a cooking stove, for the purpose of receiving and transmitting the caloric of the fuel to the walls of an oven by a current of heated air, substantially as set forth in the specification.

No. 21,171.—John L. Stewart, of Nashville, Tennessee, assignor to Rudolph A. Nathurst, of said Nashville.—*Improvement in Cooking Stoves.*—Patent dated August 10, 1858.—The object of this invention is to prevent the escape of the products of combustion, smoke, gas, &c., from cooking stoves when in use—an object not hitherto attained on account of the exposure of the fire while cooking vessels were being adjusted in and removed from the holes in the top plates.

The inventor says: I do not claim the placing of an oven over the fireplace of a stove, for such an arrangement may be seen in many cook stoves.

But I *claim*, in connexion with the sunken recesses *d*, the use of flues or passages *d e f*, substantially as and for the purposes set forth.

No. 21,518.—Apollos Richmond, of Brooklyn, Connecticut.—*Improvement in Cooking Stoves.*—Patent dated September 14, 1858.—This invention consists in giving to the front of the oven a curved or projecting form, and in combination therewith, in arranging the boiler holes around it and extending back under it in a curved form, the fire chamber, whereby the four boiler holes as well as the oven are brought into the immediate vicinity of the fire and a stronger construction obtained without increase of bulk, and the fire chamber rendered capable of more readily accommodating pieces of wood of irregular forms.

Claim.—I am aware that a stove was patented to J. Curtis, January 27, 1843, in which the oven projects forward in a rectangular form, having the boiler holes arranged around it, but consider my improvement as differing from said stove, since my oven projects forward in a curved form, and since my fire chamber is also of a curved shape, while that of Curtis' stove is rectangular. I do not, however, lay any claim to either the form of oven or fire chamber separately, or to such construction as embraced in Curtis' stove.

But I *claim* extending the oven forward in a curved form and arranging around it the boiler holes, as set forth, in combination with the curved fire chamber; the whole being constructed and operated as described for the purposes set forth.

No. 21,900.—John Peason, jr., of Newburyport, Connecticut.—*Improvement in Cooking Stoves.*—Patent dated October 26, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I *claim* the combination and arrangement of the hollow back E of the fireplace with the oven B, the fireplace C, and the flue I, whereby the heat of the fireplace and the said flue is made

to warm the air which passes into the hollow back, such air being subsequently discharged into the oven, as described.

I also claim the combination and arrangement of the smoke flues I K K K and the air flues O N M M, the whole being disposed with respect to the oven essentially as described.

I also claim the air guard S as arranged on the upper smoke flue, and with respect to the air register and discharge pipe thereof, substantially in manner as specified.

No. 22,121.—Richard M. Hermance, of Stillwater, New York.—*Improvement in Cooking Stoves.*—Patent dated November 23, 1858.—This improvement relates to the arrangement of the flues which conduct the gases of combustion from the fire-box A about the oven B to the exit or smoke-pipe C, in such stoves only as have the fire-box located at the front end of the upper part of the stove, the oven placed under and back of the fire-box, and the exit-pipe at the back end of the top of the stove.

Claim.—The arrangement of the flue strips T T^1 in the chamber D, in combination with the fire-box A, descending flues E E^1 upon the sides of the stoves and oven, flues under the back of the oven, and exit-pipe C, arranged and operating substantially as and for the purposes set forth.

No. 22,147.—Gibson North, of Philadelphia, Penn., assignor to North, Chase, & North, of said Philadelphia.—*Improvement in Cooking Stoves.*—Patent dated November 23, 1858.—In describing his improvement the inventor says: I make the adjustable back of my fire-box with a channel, zigzag groove *e e*, which forms, with the back plate of the same, a circulating air chamber, in which fresh air is continually heated and allowed to mix with the escaping gases at the apertures *i i*. In order to make the chamber as tight as possible, furnishing a continuous and perfect channel for the air to pass up, and to secure a thorough heating of the air before it is admitted into the draught of the stove, I make use of the supplementary grooves *m m*, which may be fitted into projections *n n* on the adjoining plate, and rendered air-tight by cement. At *d* are apertures for admitting air into the heating chamber *e e*.

Claim.—The arrangement of the grooved back of the fire chamber and cold air chamber in the flue and the guard plate at the corner of the oven, substantially as described and for the purpose specified.

No. 22,223.—Federal C. Adams and Joseph Peckover, of Cincinnati, Ohio.—*Improvement in Cooking Stoves.*—Patent dated December 7, 1858.—The claim and engravings explain the nature of this invention.

The inventors say: We are fully aware of the common use of vertical partitions in stoves to divide the descending from the ascending portion of a flue, but know of none constructed and arranged in this manner.

We are also aware that it is common to admit air in various ways and for manifold purposes, but not in this precise manner and for these purposes.

Therefore, we *claim*, in combination with the smoke passages formed by the single vertical and inclined partition E, arranged with regard

to the exit aperture B, as described, the admitting of air under the grate into the air spaces, and from thence into the smoke passages, by means of the perforations in the lip or flange of the back lining plates of fire-box, all substantially as and for the purposes set forth in the specification.

No. 20,133.—James Esterly, of Albany, New York.—*Improvement in Ovens for Cooking Stoves.*—Patent dated April 27, 1858.—The claim and engravings explain the nature of this invention.

I am aware that stove ovens have been in whole or in part lined with brick gypsum and other non-conducting substances, the object being in those cases to prevent the radiation of the heat from the interior of the ovens, either to make a cool, summer arrangement, or to retain the heat internally. This I disclaim, as not being the intention of my arrangement and invention, which requires not non-conducting, but slow-conducting solid material; not to keep heat within the oven, but to transmit heat applied externally slowly and steadily to the interior of the oven.

But what I *claim* is the construction of stove ovens or analogous structures by surrounding them with double outside walls, containing in the chamber formed within them some slowly conducting and radiating solid material to absorb heat communicated on the outside of the chambers and radiate the same internally, substantially as described in the specification.

No. 21,046.—Merriman P. Dorsch, of New York, N. Y., assignor to Peter Dorsch, of Schenectady, New York.—*Improvement in Stoves for Burning Soft Coal.*—Patent dated July 27, 1858.—In the centre of the fire-box B is placed a perforated cone E, which is open at its bottom so as to receive the necessary air to effect the combustion of the coal as well as its evolved gases. On top of this perforated upright cone is placed an inverted perforated frustum F, with a closed cover *e* on it.

The inventor says: I am aware a perforated cone for admitting jets of air to fuel is not new. I am also aware that a rosette furnished with holes has been used. I do not, therefore, claim either of these things individually.

But I *claim* the combination of the perforated cone and rosette when arranged with regard to the fire-box and operating as set forth and represented.

No. 19,114.—Patrick Mihan, of Boston, Massachusetts, assignor to Himself and Gilman Davis, of Boston, Massachusetts.—*Improvement in Gas Stoves.*—Patent dated January 12, 1858.—The claim and engravings explain the nature of this invention.

The inventor says: I am aware of the gas stove of Price, as patented in Great Britain in the year 1852.

I am also aware of the gas stove of Kimberly, as patented in Great Britain in the year 1853.

My stove differs essentially from these; for in each of the said stoves of Price and Kimberly ordinary argand gas-burners are used, whereas my stove is constructed to burn air and gas in mixture; and when they burn together on a wire gauze or perforated cap or disseminator,

the volatile products of combustion differ materially from those resulting from the combustion of ordinary gas alone in air; aldehye and formic acid and other disagreeable vapors result from the combustion of the air and gas when mixed preparatory to being burned.

My stove combines with these vapors a perfumed vapor, in order to render them agreeable, or to overcome their disagreeable effluvia.

I *claim* the combination of the perfuming chamber and apparatus with the air and gas-burner and the chamber of combustion.

No. 21,075.—Moses W. Kidder, of Lowell, Massachusetts.—*Improvement in Gas Stoves.*—Patent dated August 3, 1858.—In the engravings the combustion chambers or body of the stove is seen at A, at the bottom of which are the burners K, which are fed through the pipe H. The stove is surrounded by a chamber B, which is annular and cylindrical, and is connected with the former at the top by the tubes C, and at the bottom by suitable stay rods J, the whole being supported by the legs G.

Claim.—The condensing chamber B, with its trap I and pipe D, in combination with a combustion chamber, operating in the manner substantially as set forth.

No. 22,335.—Thomas Shaw, of Philadelphia, Pennsylvania, assignor to Himself and C. S. Patterson, of said Philadelphia.—*Improvement in Gas-Burning Stoves.*—Patent dated December 14, 1858.—This invention consists in an arrangement of an inverted cone in a cylinder, said cone being attached to a gas pipe, and so arranged, in respect to a hollow projection on the said pipe, that the gas may be spread out in a thin stream and exposed to a current of air, the gas being thus mixed with oxygen prior to passing through a wire gauze disk. This wire gauze disk is arranged to overhang an opening, through which the gas passes to the gauze in such a manner that the exterior air may have free access to the under side of the overhanging portion of the gauze, thus insuring a perfect combination of the gas and an extended flame of intense heat. The oven is constructed in a peculiar manner to retain the heat, and at the same time to insure a perfect circulation of heated air through the interior.

The inventor says: I *claim*, first, the inverted cone *c*, when arranged within and in respect to the hollow cylinder A, and connected to the gas pipe B, substantially as and for the purpose set forth.

Second. Extending the gauze disk *e* beyond the opening for the passage of the gas, and so arranging the overhanging portion of the said disk that it shall be exposed to the air, as set forth and for the purpose specified.

Third. The construction of the oven, consisting of the inverted box D, its opening *q*, and lining E, and the inner cylinder *k*; the whole being arranged to form the intervening passages *m n* and *p*, for the purpose set forth.

No. 19,713.—David S. Quimby, of Brooklyn, New York.—*Improved Stove Heating Apparatus.*—Patent dated March 23, 1858.—B is the heater of cylindrical form, and is placed within or upon the top of the body of the stove; D D^1 are division plates placed inside of the heater to confine the current of air brought in by the pipe C; E is the top

plate to the heater, and is secured to it. It has a series of apertures in it, which are placed over the passages formed between the division plates and the sides of the heater to permit the heated air to have egress from the heater.

The inventor says: I do not claim the use or construction of the stove; nor combining a heating stove and heater in one apparatus; nor bringing a current of cold air to the heater, to be heated and diffused in the same or another room.

But I *claim* the arrangement of the heating chamber B provided with deflecting plates D D^1, and apertures in the top plate with the cold air flue in connexion with the stove or furnace A, constructed and operating as described.

No. 21,447.—Silas T. Savage, of Albany, N. Y.—*Improved Construction of Coal-Stove Lining.*—Patent dated September 7, 1858.—The object of this invention is to secure the lining entirely, or to a very great extent, from the influence of "clinkers," and to secure comparative permanency thereto This is effected by enclosing the lining of fire-clay within a partial framework of cast-iron in various ways, as is shown in the engravings.

Claim.—The employment of metallic framing to contain fire-clay or other lining for coal stoves, for the purpose of preserving it from injury by adhesion of clinkers, constructed substantially as described in the specification.

No. 20,415.—M. C. Fagan, of Troy, N. Y.—*Improved Wood-Burning Stove.*—Patent dated June 1, 1858.—This invention relates to an improvement in that class of wood-burning stoves which are of cylindrical form, and consists in so constructing the stove that it may be extended when necessary, so that when short wood cannot be procured, the stove may, with the greatest facility, be adapted to receive longer sticks.

The inventor says: I do not claim broadly, or irrespective of the arrangement shown, a cylindrical stove provided with a circuitous draught passage, for such device has been previously used.

But I *claim* the extension C, constructed similarly to the main portion A of the stove, and arranged substantially as shown, so that the stove may be extended when desired, for the purpose specified.

No. 21,707.—William B. Treadwell, of Albany, N. Y.—*Improvement in Lining for Coal Stoves and Furnaces.*—Patent dated October 5, 1858.—The claim and engravings explain the nature of this invention.

Claim.—The employment of hollow blocks of metal, filled in with siliceous sand, as a new article of manufacture, to be used as a substitute in the place of fire-brick for the lining of the fire chambers of stoves and furnaces, substantially as set forth and described in the specification.

No. 21,410.—James Easterly, of Albany, N. Y.—*Improvement in Grates for Coal Stoves.*—Patent dated September 7, 1858.—The nature of this invention consists in constructing the grate and the bar on which it rests, and combining therewith a clasp spanning the bar

to be permanently connected to the grate, having a projection extending out parallel with the bar to receive a lever with which the grate may be agitated on a level; and by connecting a lever to the end of the bar the grate may be lifted to a perpendicular position and empty the residuum from the furnace.

Claim.—The combination of the grate B, the bar D, and the clasp H, or its equivalent, when used and operating in the manner and for the purposes substantially as set forth and made known.

No. 21,467.—James Easterly, of Albany, N. Y., assignor to Himself and Dennis G. Littlefield, of said Albany.—*Improvement in Flues of Elevated Oven Cooking Stoves.*—Patent dated September 7, 1858.—The nature of this invention consists in dividing the flue of the stove where the oven is to be set on into three separate passages or flues, the centre passage to serve as a direct outlet to the exit flue; when desirable to entirely avoid heating the oven, the side passages for conveying, as required, the products of combustion and applying them for use at each end of the oven to be placed thereon, and combining with flues thus arranged within the stove an elevated or portable oven.

The inventor says: I do not claim the dividing of the flue of the stove for conveying the products of combustion to separate flues placed at each end of an elevated oven, or to the exit flue, by a centre passage; neither do I claim an elevated oven having a descending flue, with its flue space from end to end of the oven an open chamber.

But I *claim* combining with flues D D, and a centre passage arranged substantially as described within the stove, an elevated oven, having its flue space on its sides and top an open chamber, in connexion with a descending flue, with its exit at the base; the whole arranged and operating substantially as described and made known.

No. 20,919.—Birdsell Holly, of Seneca Falls, New York, assignor to Himself and John S. Edwards, of Seneca Falls, aforesaid.—*Improved Atmospheric Regulator for Stoves, Furnaces, &c.*—Patent dated July 13, 1858.—The claim and engravings will explain the nature of this invention.

The inventor says: I *claim* the employment of a pendulum or balance having a movable axis connected with the valve or damper A by the levers C and D, or their equivalents, in such a manner that the gravitating force shall increase as the damper closes, and diminish as it opens, for the purpose of regulating the admission of air to the fuel, substantially in the manner set forth.

I also claim the method of hanging the damper A by means of the convex pivot bearing C, arm *f*, and sliding pivot *d*, substantially as and for the purpose described.

No. 19,436.—Daniel Moore, of Brooklyn, New York.—*Improved Fire Tongs.*—Patent dated February 23, 1858.—In the engravings, *a* is the handle, *b c* are the moving and fixed legs of the tongs, *d* is the joint, *e* is a curved slide attached to the inner side of one of the legs *b*. The tongue *i* is connected to the inner side of the leg *c*, and slides in the slide *e* as the tongs are opened or shut.

Claim.—The slide *e* and tongue *i*, attached to the respective sides of the legs of the tongs, and acting in the manner and for the purposes substantially as specified.

No. 19,089.—James P. Herron, of Huntsville, Ohio.—*Apparatus for Ventilating Pulpits.*—Patent dated January 12, 1858.—The nature of this invention consists in attaching to and combining with a pulpit, desk, or rostrum, an apparatus whereby a supply of fresh, pure air is afforded to a speaker occupying such places, and at the same time admitting of medicating the pure air to be diffused around the pulpit for inhalation.

The inventor says: I am well aware that tubes, pipes and vents have been used for ventilating dwellings and other places, and such devices I do not claim.

But I *claim* the manner or mode described, with the inspiratory aura-duct formed as shown, and constructed of the mouth and jaw parts *c c d e e f f*, the receptacle *g g*, the tongue valve *i i* J J, in combination with the air-conducting tubes and pipes *a a a b b b*, or in any equivalent manner substantially the same.

No. 20,068.—Elias T. Ingalls and James R. Nichols, of Haverhill, Massachusetts.—*Improved Steam Warming Apparatus.*—Patent dated April 27, 1858.—The claim and engraving explain the nature of this invention.

The inventors say: First. We *claim* the device as set forth for increasing or diminishing the capacity of the fire chamber, so as to maintain a larger or smaller amount of fuel in a state of combustion.

Second. We claim vessel I, in connexion with flexible pipe J and spring L, operating together as described, for controlling a valve or valves affixed to boilers for regulating steam pressure.

We disclaim so connecting this arrangement as to control dampers in the smoke flue and draught, in the manner embraced in C. Devenport's patent of March 11, 1856.

Third. We claim the device, constructed essentially as described, for supplying water to the boiler.

Fourth. We claim, in the construction of fluted or corrugated radiators of thin plates of iron facing across the corrugations, strips of metal securely fastened, and for the purpose as set forth.

No. 21,376.—George W. Smith, of Aurora, Indiana.—*Feet-Warming Device.*—Patent dated August 31, 1858.—This invention consists in having a chamber or box placed in the ground or below the flooring adjoining the forge and the place where the operator or workman stands, said chamber or box being supplied with steam generated in a water tweer, if such tweer be used; or if such tweer be not employed, a tank is inserted in the wall of the forge, so that steam will be generated therein by the heat of the forge, and the chamber or box on which the operator stands be supplied and heated with steam therefrom.

Claim.—The employment or use of the chamber I, when applied to a forge and heated by steam generated within a box E, or its equivalent, by the force of the forge, substantially as described.