Mass. Dist. ss. Circuit Court of the United States —
Oct. Term — 1818.

Abner Stearns & al. Plfs.
vs
John Hall & al. Dfts.

The said John Hall and Aaron Hall, defendants in the above-entitled cause, after verdict and before judgment thereon, come and move this Honorable Court that the said verdict be set aside, and a new trial awarded of the issue joined in said cause — for the following reasons —

First — Because if the patent, which is declared upon in this action, be construed as a patent for the entire machine, called a reel, described in the specification, then the same includes parts, which at the trial were proved and in the said specification are admitted, to have existed in combination in a machine for similar purposes long before the supposed invention of the Plfs; to wit, in the reel composed of four arms or two cross pieces, on which it was admitted that the cloth was wound in a square spiral, which reel is described in said specification as before in use; and the Judge, who charged the jury at the trial of said issue, did direct them, that merely increasing the number of arms (no certain number of arms being ~~required~~ in said specification) was not an invention, that would in law entitle the Plfs to a patent — and did also so direct them, that as it respected this patent, if the former square reel was believed to have been in use before the invention claimed in this patent, the Dfts. had a right to use the reel-head resembling the hub and spokes of a wheel, and also the spiral form of winding the ~~silk~~ cloth — and that the said patent, if it extended to the whole machine, and went to secure the exclusive right to every part thereof as the invention of the Plaintiffs, was broader than their invention and therefore void — And therefore the said jury, upon this construction of the patent, in returning their said verdict, must either have found, that the said square reel did not so exist, which is against the admission of the specification, and the admissions and evidence of the Plfs. at the trial — or admitting the above fact, they must have gone upon the supposition that notwithstanding such prior use, the same might be secured by patent to the Plfs and that their said patent was not thereby rendered void — in which case their said verdict is against the direction of the Judge in the matter of law.

Secondly — Because, if the said patent be construed as a patent for an improved machine, or for a certain combination consisting of the machine known and

used before, as set forth in the specification, and of certain improvements added thereto by the Plfs, then the right of the Plfs under their said patent must be confined to that precise combination, and it was necessary, in order to support the Plfs case, and the Judge who tried the cause did so direct the Jury, that the machine used by the Dfts. should, in all material and essential respects, be like the machine described in the Plfs specification, otherwise the combinations would not be identically the same, and therefore there would be no infringement — and that, if the rack and pinion was an essentially different mechanical power from the screw, then there appeared a substantial difference between the two machines, which destroyed their identity — and therefore, inasmuch as it was evident on inspection, that the rack and pinion was employed in the Dfts. machine to ~~effect the same purpose~~ produce the same effect, for which the screw is employed in the Plfs machine, and it was also proved by divers witnesses on both sides, and was not contradicted, that the rack and pinion is a mechanical power essentially different from the screw, the said Jury must have returned their verdict in this particular either against the evidence, or against the direction of the Judge in the matter of law.

Thirdly — Because at the said trial it was clearly proved by the testimony of Allan Pollock, by the admission of the Plfs, and by a public work, that hooks of different forms and sizes, and of different degrees of finish and fineness, according to the nature of the cloth, had been used for the purpose of extending cloth upon frames many years before the pretended invention of the Plfs — and this evidence was not contradicted by any other evidence in the cause — And it was also proved by the said public work, and by witnesses produced both by Plfs and Dfts to shew the meaning of the description ~~given~~ contained in the said public work, and was not contradicted by any other evidence in the cause, that many years before the said supposed invention of the Plfs, the screw axis was known and had been used and applied for the purpose of moving one frame from or towards another, according to the width of cloth ~~[illegible]~~ attached to said frames to be dyed — And it also ap-

peared and was admitted by the said Plfs in their specification, that before their said supposed discovery, a reel was in use for like purposes consisting of four arms or two cross-pieces; and it also appeared and was admitted, that on such reel the cloth was wound in a square spiral by means of tenter hooks set upon the arms; and there were no other improvements claimed to have been made in any essential parts upon the said square reel admitted by the said specification to have been before in use, excepting only the increasing of the number of arms (which the said Judge directed the Jury was not an invention that would in law entitle the party to a patent, no certain number being set out in said specification, and as to which it appeared from inspection of the machine used by the Dfts. that it consisted of eight arms only, while the machine produced by the Plfs consisted of ten) — the using of finished curved hooks placed diagonally in the sides of the arms instead of tenter hooks formerly in use — and the aforesaid application of the screw — And the said Judge directed the Jury, upon these facts, that if any or all of these improvements had been used by the Dfts. yet if none of the same was new in its principle or mode of application, the Plfs could not in point of law support their action for such use — and therefore the said verdict in this respect is either against the evidence or against the direction of the Judge in the matter of law.

Fourthly. — Because it appeared in evidence as aforesaid and was not contradicted by any testimony, that the screw had been applied for stretching cloth between two frames, in the same manner as in the Plfs machine, long before the supposed discovery of the Plfs; — and the said Judge directed the Jury, that taking this fact to be true, if the said patent was construed as a patent for the improvements made in said square reel by the Plfs, then the said patent included what was not invented by the Plfs. to wit, the said application of the screw — and therefore, upon this construction of the patent, the said verdict is against the evidence, or against the direction of the judge in the matter of law.

Fifthly — Because at the said trial it was proved by an inspection of the machines, that the power which moved the moveable frame or reel-head in one was a screw, and in the other a rack and pinion — and it also was testified and was not contradicted, that these are essentially different mechanical powers —

And it also appeared by inspection of said machines, and from divers witnesses whose testimony was not contradicted, that the cloth upon the Dfts. machine is secured to the arms by rods passing through staples and thro' the selvages of the cloth — and that the purpose and design of certain small barbs cut upon said staples is merely to hold the cloth until the rods are pushed through — and it also appeared, that said staples and barbs resembled more the tenter hooks admitted to have been long in common use, than the hooks or pins on the Plfs machine — and it also appeared, that in the Plfs machine, the cloth is attached and secured by means of curved hooks or pins passing thro' the selvages and holding the cloth thro' the whole operation of dyeing — and it also appeared, that these two parts of the machine were the only essential parts, which had been improved by the Plfs, no other improvements being set out in their specification — Whereupon the said verdict is against the weight of evidence and also against law in finding the said Dfts. guilty of an infringement of the Plfs rights.

Sixthly — Because after the evidence and the argument on the part of the Dfts. had been closed, the said Plfs introduced and examined (altho' objected to by Dfts) another witness, namely, Loammi Baldwin Esq. who testified much at length upon the principles and character of the two machines, whereby the said Dfts. were surprized, having dismissed their witnesses on the preceding day after the evidence was supposed to be closed — and had no opportunity to comment upon or reply to the said testimony.

Seventhly. — Because the patent declared upon is a patent for an improvement, and the said Plfs in their specification have undertaken to set out the improvements, for which they claim a patent — But the Plfs at the trial ~~[illegible]~~ gave evidence of, and ~~to~~ insisted upon in argument to the jury, other parts of said machine as being improvements made by them — to which the Dfts. objected.

~~Eighthly Because no evidence was produced at the trial, that said Stearns invented any part of said machine and therefore the said verdict is against the weight of evidence in this respect.~~

Eighthly ~~Ninthly~~ — Because the said judge in charging the jury did direct them, for the purposes of the trial, that the existence of two prior patents for the same thing

granted to the same patentees respectively, [illegible] the said patents be still in force, did not affect the validity of the patent declared on.

And did also direct them, for the purposes of the trial, ~~that the~~ oaths of said Plfs respectively made when they obtained the said prior patents, that they severally believed themselves to be true and original inventors of said machine, did not conclude them to shew a joint invention of the same machine, and to claim as joint patentees therefor — both which directions the said Dfts. respectfully submit are incorrect in point of law.

Ninthly - ~~Lastly~~ Because the said Jury, upon the whole weight of evidence produced at the trial, and upon the matters of law in which they were instructed by the Judge, ought to have returned their verdict, that the Dfts. were not guilty — Yet, against the said weight of evidence and against the said directions in matters of law, they have returned their said verdict, that the said Dfts. are guilty.

~~by their Attorneys~~

~~Prescott and Sullivan~~

Tenthly — Because it was incumbent on the Plfs to make out and prove a joint invention — but the evidence produced did not prove ~~or~~ that the said Stearns had any concern in such invention.

by their Attorneys

Prescott and Sullivan

[illegible]ell & al vs. Hall & a.
Motion of Defts for New Trial
October Term 1818
27. Oct. Filed in Court
A. D. Davis Clk.

Massachusetts District } The President of the United States of America
(Seal) To the Marshal of our District of Massachusetts or his Deputy
Greeting —

We Command you to attach the goods or Estate of John Hall of Boston in our said District and Aaron Hale of Lynn, also in our said District Dyers of Silk to the value of forty thousand Dollars and for want thereof to take the bodies of the said John and Aaron if they may be found in your District and them safely keep so that you have them before our Judges of our Circuit Court of said United States for the first Circuit next to be holden at Boston within and for our said District of Massachusetts on the fifteenth day of October next: Then and there in our said Court to answer unto William Barrett of Malden Dyer of Silk in our said District and Abner Stearns of Billerica in our said District Millwright alias Mechanician. In a plea of the Case for that whereas they said Barrett & Stearns citizens of the United States invented a new and useful improvement in the art of dyeing and finishing Silk woven goods and made oath that they did verily believe that they were the true inventors or discoverers of said improvement and paid into the Treasury of the U States the sum of thirty dollars delivered a receipt for the same and presented their petition to the Secretary of State signifying their desire of obtaining an exclusive property in the said improvement and praying that a patent be granted them for that purpose whereupon thereafterwards to wit at the City of Washington on the ninth day of September now current by certain letters patent made out in due form of law in the name and under the Seal of the United States dated on the day last aforesaid which said letters patent are now in Court to be produced there was granted to the said Barrett & Stearns for the term of four years from the twelfth day of May then next preceding the full & exclusive right and liberty of making constructing and using and vending to others to be used the aforesaid Improvement as the same is described in the specification filed in the office of the Secretary of State of which a schedule is annexed to said letters patent and now in Court therewith to be produced. And the Plffs in fact say that the defendants well knowing the premises but contriving and fraudulently intending to injure the Plffs in this behalf did on the same day to wit on the twelfth

day of May last past and for a long time before and at divers days and times from said day to the day of the purchase of this writ to wit at Lynn aforesaid in our said district without the consent of the Pltffs or either of them first or at any time obtained in writing did unlawfully make use and construct the said improvements so as aforesaid exclusively secured by Patent to the Pltffs contrary to the form of the Statute of the U States made and passed on the twenty first day of February A D Seventeen hundred and ninety three, entitled an act to promote the progress of the useful arts and to repeal the act heretofore made for that purpose. By means of which and by force of another Statute of the United States made and passed on the seventeenth day of April A D Eighteen hundred, entitled an Act to extend the privilege of obtaining patents for useful discoveries and inventions to certain persons therein mentioned and to enlarge and define the penalties for violating the rights of patentees, the defendants have forfeited to the Pltffs a sum equal to three times the damage sustained by the Pltffs from or by reason of the premises which actual damage the Pltffs aver is equal to the sum of ten thousand dollars and an action hath accrued to the Pltffs to have and recover of the defendants the sum of thirty thousand dollars. of all which the defendants have had due notice. Yet though often requested they have never paid the same but refuse to the damage of the said Pltffs the sum of Forty thousand dollars.

The United States of America

To all to whom these Letters Patent shall come:

Whereas Abner Spearns and William Barrett citizens of the United States have alleged that they have invented a new and useful improvement being a mode of dyeing and finishing all kinds of Silk Woven Goods which improvement they state has not been known or used before their application; have made oath that they do verily believe that they are the true inventors or discoverers of the said improvement have paid into the Treasury of the United States the sum of thirty dollars, delivered a Receipt for the Same, and presented a petition to the Secretary of State signifying a desire of obtaining an exclusive property in the said improvement and praying that a Patent may be granted for that purpose: These are therefore to grant according to law to the said Abner Spearns and William Barrett their heirs administrators or assigns for the term of four years, from the twelfth day of May one thousand eight hundred and eighteen the full and exclusive right and liberty of making constructing using and vending to others to be used the said improvement; a description whereof is given in the words of the said Abner Spearns and William Barrett themselves, in the Schedule, hereto annexed and is made a part of these presents.

In testimony whereof I have caused these letters patent to be made Patent and the Seal of the United States to be hereunto affixed.

Given under my hand, at the City of Washington this ninth day of September in the year of our Lord one thousand eight hundred and eighteen and of the Independence of the United States of America the forty third

L.S.

James Monroe
By the President
John Quincy Adams
Secretary of State

City of Washington, To wit

I do hereby certify that the foregoing Letters Patent were delivered to me on the ninth day of September in the year of our Lord one thousand eight hundred and eighteen to be examined; that I have examined the same and find them conformable to law: and I do hereby return the same to the Secretary of State, within fifteen days from the date aforesaid to wit on this ninth day of September in the year aforesaid

Wm Wirt Attorney General of the United States

The Schedule Referred to in these letters Patent and making part of the same, containing a description in the words of the said Abner Stearns and William Barrett of their improvement being a mode of dyeing and finishing all kinds of Silk woven goods. -

The Reel is designed to extend the silk when immersed in the dye stuff so that this may pass freely and come in contact with the whole surface of the silk or material to be dyed and yet the silk or material shall occupy the smallest possible or convenient space in the dye tub. This machine consists of two sets of arms each resembling in form the hub & spokes of a wheel ~~wit~~ without the rim or felloes. In the hub of one is formed a female screw; in the other a smooth cylindrical hole in which one end of the axle may freely turn. The axle consists of a male screw, except that one end thereof is turned smooth to adjust to the hole of the hub that is smooth, and the other end is for an inch or two square to receive the eye of a winch or crank It is about three or five feet long. The male screw of the axle is cut to fit the female screw in the hub having the same therein. The two sets of arms are besides connected with each other by two square bars of wood or metallic substance like the axle. One end of each is securely fixed to the hub, having the smooth hole, and the other ends are adjusted to square holes made in the other hub through which they slip

or frame as the hubs or sets of arms are made to approach each other and thus prevent the hubs from turning as the screw axle is turned round for the purpose of approximating or withdrawing the sets of arms to or from each other. Thus it is easy to perceive that with one sets of arms held on to the smooth cylindrical end of the axle by a pin and washer or otherwise so that the axle may freely turn therein or in the hub thereof: the other sets of arms having the female screw will be made to approximate to or recede from this as the screw axle may be turned, to or from by a handle or ~~crank~~ winch affixed to the square end of the axle The utility of this movement will presently appear.

The hubs of the sets of arms may be made of any convenient size. The dimensions adopted in practice at present are as follows. The material any metal or metallic composition. The last however has been adopted in practice. The Hub is about five inches in diameter and two inches thro' is morticed to receive the arms which are flat square about sixteen inches long, but tapering from the hub to the end. Upon the sides of these arms or spokes are secured small brass pins which are so set in groves, cut into the sides of these arms transversely and diagonally that the pins inward and upwards and divergently from the axle. The distance between these pins is quite small about three sixteenth of an ~~inc~~ inch. The mode of applying the silk and immersing the same is as follows. Both sets of arms being placed on the axle as above represented. The machine is supported by the axle on two standards outside of the arms horizontally. The sets with the female screw is then approximated by turning the winch to a distance from the other a little less than the width of the material to be dyed. one end of the silk is then attached by the operator to opposite arms upon the pins therein nearest to the axle and then the operator ~~then~~ turning the machine ~~in a spiral form~~ little from himself the silk is further attached to the next arms by the pins

nearest the axle and so on successively till the whole is attached and wound round upon the machine in a spiral form. Then turning the screw axle by the winch the sett of arms having the female screw therein recedes by a regular motion susceptible of the most accurate adjustment to the width of the silk: and thus it is held perfectly extended between the arms and by the selvidges in such a manner as not to be in contact with itself but to leave free passage for the dye stuff to apply itself equally to every part of the whole surface and in this state of tension it is immersed by operation of a tackle and fall attached to one end of the axle untill it be properly saturated or dyed. It is obvious that the silk by this means may be most conveniently reeced and most readily drained. It is also apparent that the position of the pins on the arms they inclining upwards and bending a little from the operation as he applies the silk must facilitate both the application of the material for dyeing and the disengagement thereof after this operation is performed.

(A) There has been it is said a reel heretofore in use for like purpose but this if it were ever so used consisted of four arms or two cross pieces adjusted to a square axle and the sett of arms were kept seperate or fixed upon the axle, not by a screw but by pins passing through holes in said axle. Instead of pins affixed to the arms there were common tenter hooks driven into the inner side of the arms and the whole so constructed as to be utterly inapplicable to the purpose of dyeing silk or other Goods without great injury. The machine for which these applicants claim a Patent is in all material respects an improvement upon this. (B) The design of the Silk frame is to extend the Silk for ~~[illegible]~~ drying and finishing and it is contemplated to use it for all kinds of Goods which

in the operation of dyeing require to be so extended. It is a wooden frame consisting of fourteen posts about four feet or more in height connected by rails in such manner as to be perfectly solid and firm. The opposite posts are connected by two strong rails of about eight feet in length one at bottom and one within a few inches of the top well morticed and tenanted into the posts. while two strong pieces of plank lying upon the bottom connecting rail leaving a space a space of about two feet more or or less between them are firmly secured to these said bottom rails A strong rail is fastened to the posts throughout the whole length of the frame, and thus give it all requisite solidity and firmness. Upon the upper rail connecting the opposite posts which are placed at a distance of ten feet from post to post along the length of the frame are lain two pieces of plank sixty feet long and about eight or ten inches wide. These are made to move or slide on these upper rails so that when the silk is attached to their inner edges they may be withdrawn from each other till the requisite degree of tension is obtained. The mode in which the silk is attached to the edges of these cheeks and then the cheeks withdrawn is as follows. The inner edges of the cheeks are covered by a thin plate of copper about half an inch wide nicely attached thereto. Sixty pieces of wood cut from board or plank say from an inch to an inch and a half or two inches thick about a foot long on one side and cut up in triangular form are adjusted to each cheek. The base being as above one foot in length it is attached by hinges to the superior surface of the cheeks in such manner that the edge of the base will coincide exactly with the inner edge of the cheek when the peice rests on its base. On this two there is a copper edging and thus this copper edging when these pieces are raised upon their bases come closely in contact with the copper edges along the line of the inner edges of the cheeks and by firm pressure are made

to hold the selvidges of the silk &c. To the outer side of these peices which are called lap joints are attached some iron stays about six or eight inches long being a little longer than the lap joints are wide or high. These stays are attached by a staple or eye to the upper part of the lap Joints and the foot of each is made to slide into a groove cut in the superior surface of the cheek and lined with copper so that by forcing the foot of the stay into the groove the lap Joint is made to press firmly upon the selvidge of the silk when lain upon the copper edge of the cheek. The silk is first secured by one selvidge to one cheek, then the other cheek being approximated sufficiently the operator in like manner applies the selvidge to the other cheek edge and secures it by successively raising up and securing the lap Joints. The former cheek is fastened to the upper rails by strong iron pins passing through this and the said connecting rails of opposite posts. The other cheek which is called the front cheek is then gradually withdrawn till the silk is perfectly extended. The mode of withdrawing the front cheek is thus. To this cheek opposite each post all of which on this side are two feet above the cheeks are attached several pieces of iron long enough to pass through the posts on which ~~the posts~~ peices of iron are cut screw threads so that nuts being set in wheels and applied to said peices of iron by the turning of all the wheels simultaneously and with equal velocity the whole front cheek is gradually withdrawn till the proper degree of tension in the silk is obtained. These wheels are put in motion by a chain band carefully adjusted so that the links thereof embrace projections in the periphery and the power is applied indifferently to either wheel by a pin six or eight inches long thereto attached

to serve as a handle or winch. (C) There may be other modes of withdrawing the front cheek but the special subject of Patent for which letters are claimed is the mode of securing the silk as above described, by lap Joints and the gradual and exact tension obtained by the withdrawing of the whole front cheek simultaneously and equally at one operation as aforesaid In these and in all material respects this frame is an improvement upon the skin frame formerly in use and also a frame that was constructed to hold the selvidges by peices of board lain flat upon the cheeks and pressed by wooden screws attaching them to the cheeks. The copper edges being a very considerable improvement on this last mentioned frame which had become useless by reason of the absorption of the dye stuffs in the wooden edges of the cheeks and slabs or boards above mentioned. (D) The silk being thus extended the ends thereof are secured by a brass bar set with pins or by a peice of wood split so as to hold the ends and the whole is ready for the operation of drying and finishing which is done thus. Upon the peices of blank which are described as fastened upon the lower cross rails that connect opposite posts is placed a moveable car running on four wheels which is made to contain Coals and move at pleasure beneath the silk as the operator proceeds in the finishing. This being accomplished the silk is delivered from the lap Joints by removing or sliding away the stays and be immediately folded for use.

Abner Stearns

William Barnes

Witnesses

Chs Pelham Curtis

Geo Sullivan

Loring P. Curtis

Copy of Declaration
of Neutrality

Mass. Dist — Circuit Court of U. States — Oct. Term — 1818

Abner Stearns &al. vs John Hall &al.

And now the said John and Aaron come and defend &c when &c and say, that they are not guilty of the premises aforesaid, above laid to their charge, nor of any part thereof, in manner and form, as the said Abner and William have above complained against them; and of this they put themselves on the country — by their Atty.

John Pettison

[illegible]

by their Atty. [illegible]

And the said John Hall and Aaron Hall, in pursuance of the statute of the United States in this behalf provided, hereby give notice to the said Stearns and Barrett, that at the trial of the said action, they shall give evidence to the jury to prove, that the thing secured by the Letters patent mentioned in the Plaintiffs' writ was not originally discovered by the said

Abner Stearns and William Barrett – but had been in use and had been described in a public work anterior to the supposed discovery of the said Stearns and Barrett.

2dly. That the mode of dyeing and finishing all kinds of silk woven goods described in the specification annexed to the said letters patent was not originally discovered by the said Abner and William – but had been in use and had been described in a public work anterior to the supposed discovery of the said Abner and William

3dly That the said Abner and William surreptitiously obtained a patent for the discovery of another person – viz. some person to the Dfts. unknown.

And the said John and Aaron pray, that the Jury may enquire into the aforesaid special matter, and in their verdict certify, whether they find the same to be true

By their Atty

John Ellison

Steamsal. vs Hallsal

Oct. T. 1818.

Dfts plea.

filed in the Clk's Office
2. October 1818.
Attest Geo. Davis Clk.

William Barrett of Malden Dyer of Silk in the District of Massachusetts and Abner Stearns of Billerica in the said District Millwright & Mechanician Plffs vs John Hall of Boston in the said District and Aaron Hall of Lynn also in said District Dyers of Silk Defendants, In a plea of the case This action was commenced at the last term and was continued from thence into this term. And now neither party appears —

Box Co.
May Term
1819.

In the case of Barnette & al vs. Hall & al
agreed this action be dismissed without
costs to either party -

G. W. Sullivan
Atty for Plff
John Gallison for Dfts.

Barrett et al. vs Hall et al.

Circuit Ct. Monroe Co. May T. 1849

Ct. No. 20.

Wm Barnett & al. vs John Hall et al.

Clks fees to be pd. by Plffs.

Swearing 3 Witnesses	0.30
Affirmed Verdict	0.50
Filing 9 papers	0.56
	$1.36
Continuance	0.56
	1.92

Clks fees to be pd. by Defendts.

Swearing 12 Witnesses	7.20
Filing 4 papers	0.24
3 Certificates	0.60
Continuance	~~0.56~~
~~Entering order of Court~~	$2.64

The Jury find the defendants, have infringed the rights of the plaintiffs, and assess damages, to the amount of twenty dollars.

Wm Torrey foreman

The Jury find the Defendants are guilty in manner
and form as the Pltf have declared against them
and assess damages in the sum of twenty dollars

Wm Torrey foreman

Oct. T. (24. Oct.) 1818.
Affirmed in Ct. Ad Jno H Davis Clk

Circuit Court of the United States — Oct. Term — 1818.

In the case of Abner Stearns dal. Plf.

vs

John Hall dal. Dfts.

The said John Hall and Aaron Hall, in addition to the special matter before filed by them, and not waiving the same, nor waiving any right they may have to give in evidence other matters not herein particularly set forth tending to prove, that the thing secured by patent to the said Plfs was not originally discovered by them, or that some part or parts thereof were not so discovered, but had been before used, or described in a public work or works — and reserving to themselves all other rights which they have by law — set forth the following matters to be given in evidence at the trial of said cause — that is to say —

That the said letters patent grant and secure to the said patentees the exclusive right of making, constructing, using, and vending to others to be used a machine, which was not originally invented by them — because —

1. The ~~mode~~ method of extending the silk or other stuff upon a frame or reel, so that the folds may be separate, and that by

dipping the same into the bath every part of the surface thereof may come in contact with the colouring liquor, is not new, but had been used and practised, and described in various public works long before the said Pltfs pretend to have discovered or used the same — and more especially, that the same was used many years since by one Mr Murphy in the County of Essex in this State, who employed a reel, on which the stuff was wound circularly — and was known and in common use in England and France — and is described in Berthollet's Elements of Dyeing quoted in Cooper on Dyeing — in Rees's Cyclopædia — and in the treatise of Le Pileur D'Apligny on the Dyeing of Cotton and Linen Thread and of stamping cottons, silks &c and a translation thereof published in London in the year 1789.

2. That reels or frames have been long used for the purpose of putting silks and other stuffs into the bath, which were so formed, that the part having one selvidge of the silk or other stuff attached thereto might be removed to a greater distance

sion that, having the other selvidge of the stuff attached thereto — and that the mode of adjusting the distance of the two frames or sets of arms of the reel by means of a screw-axle is not new, but was long before known and used, and described in a public work, to wit, in the aforesaid treatise of Le Pileur D'Apligny, and translation hereof.

3. That the attaching of the silk or other stuffs by means of hooks passing through the selvidges is not new, but was long before known and used, and described in the aforesaid treatise of D'Apligny.

4. That the said pretended discovery of the said Stearns and Barrett was never jointly invented by them but the same, if at all invented by either of them, was the invention of the said Stearns alone, or of the said Barrett alone — or that one of them invented some parts thereof, and the other invented other parts thereof —

John Gallison — Atty for Dfts.

Agreed that Dfts. have the same rights, as to giving special matters in evidence, as if this & their original notice had been filed thirty days before trial

Geo Sullivan
Atty for Plffs.

Plaintiffs Atty. to file further specification.

Dft's Atty. filed in
Dft's Atty's office

MASSACHUSETTS DISTRICT, ss.

The President of the United States of America

To the MARSHAL *of our District of* MASSACHUSETTS, *or his Deputy*—GREETING:

WE command you to attach the goods or estate of John Hall of Boston and Aaron Hall of Lynn ~~in our said District of~~ in our District of *Massachusetts*, dyers of silk to the value of ~~twenty~~ thousand dollars, and for want thereof to take the bodies of the said John and Aaron (if they may be found in your District) and them safely keep, so that you have them before our judges of our Circuit Court of said United States for the first circuit next to be holden at *Boston*, within and for our said District of *Massachusetts*, on the fifteenth day of October next Then there, in our said court, to answer unto

William Barrett of Lynn in our said District silk dyer and Abner Stearns of Billerica also in our said District millwright alias mechanic in a plea of ~~the case~~ trespass on the case for that whereas by certain letters Patent made out in due form of law in the name and under the seal of the United States and in court to be produced there was granted to the Plffs citizens of the United States the full and exclusive right of liberty of making constructing using and vending to others to be used their invention of two certain machines for dyeing and drying silk and all kinds of woven goods called the silk frame & the silk reel of the Plffs in fact say that the Defendants well knowing the premises & contriving and fraudulently intending to injure the Plffs in this behalf on the twelfth Day of this present month and at divers times between the first day of ~~November~~ last & the ~~present~~ said twelfth day of September ~~without~~ the consent of the Plffs or either of them in ~~their~~ behalf ~~had~~ obtained in writing and unlawfully devise make and use the said inventions so invented by the Plffs & secured to them as aforesaid contrary to the form of the Statute of the United States made & passed the twenty first day of February in the year of our Lord one thousand seven hundred and ninety three entitled An act to promote the progress of useful arts and to repeal the act heretofore made for that purpose. By means of which and by force of another Statute of the United States made & passed the seventeenth day of April in the year of our Lord eighteen hundred entitled an act to extend the privilege of obtaining Patents for useful discoveries and inventions to certain persons therein mentioned & to enlarge & define the penalties for violating the rights of patentees the defendants has forfeited to the Plffs a sum equal to three times the actual damage sustained by the Plffs from or by reason of the premises which actual damage the Plffs avers is equal to the sum of ten thousand Dollars and an action hath accrued to the Plffs to have and recover of the Defendants the ~~said~~ sum of thirty thousand Dollars yet the Defendants though often requested have never paid the said ~~sum of thirty~~ last mentioned sum nor any part thereof—

To the damage of the said Steamships
the sum of forty thousand dollars, which shall then and there be made
to appear, with other due damages. And have you there this writ, with your doings therein.
Witness the Hon. John Marshall Esq; at *Boston*, the twelfth ~~day~~
day of September in the year of our Lord *one thousand eight hundred and* ~~eighteen~~

Jno. W. Davis [redacted] Clerk.

United States of America
Dist. of Mass.ts } S. S. } Pursuant to the within precept I attached a Button the joint property of the Defendants herein named and gave to each a summons in hand to appear as herein required —

Boston Sep.t 15 th 1818

attest Sprague Dyme

Fees
2 Services $4
travel — .75
$4.75

Wm Garrett

Wm Garrett
vs
Thos Carter et al.

MASSACHUSETTS } **The President of the United States of America**
DIS[illegible]T, ss. } *To the* MARSHAL *of our District of* MASSACHUSETS, *or his Deputy*---GREETING.

WE command you to attach the goods or estate of John Hall of Boston ~~in our said District~~ and Aaron Hall of Lynn also ~~in our said District~~ Dyers of Silk ~~in our District of Massachusetts~~ to the value of forty thousand dollars, and for want thereof to take the bodies of the said John & Aaron (if they may be found in your District) and them safely keep, so that you have them before our judges of our Circuit Court of said United States for the first circuit next to be holden at *Boston*, within and for our said District of *Massachusetts*, on the fifteenth day of October next : Then and there, in our said court, to answer unto

William Barrett of Malden Dyer of Silk in our said District and Alvan Stearns of Billerica in our said District Millwrights alias mechanics

in a plea of the case for that whereas they said Barrett & Stearns citizens of the United States invented a new useful improvement in the art mode of dyeing and finishing silk woven goods and made oath that they did verily believe that they were the true inventors or discoverers of said improvement and had into the treasury of the United States the sum of thirty Dollars delivered a specimen for the same and presented their petition to the secretary of State signifying their desire of obtaining an exclusive property in the said improvement and praying that a patent be granted them for that purpose whereupon there afterwards to wit at the city of Washington on the ninth Day of September now current by certain letters patent made out in due form of law in the name and under the seal of the United States dated on the Day last aforesaid which said letters patent are now in Court to be produced there was granted to the said Barrett & Stearns for the term of four years from the twelfth Day of May then next preceding the full & exclusive right and liberty of making constructing and using and vending to others to be used the aforesaid Improvement as the same is described in the specification filed in the office of the secretary of State of which a schedule is annexed to said letters patent & now in court ready to be produced. And the Plffs in fact say that the Defendants well knowing the premises but contriving & fraudulently intending to injure the Plffs in the premises did on the same day since the twelfth Day of May last past and for a long time before and at divers days and times from said Day to the Day of the purchase of this writ to wit at Lynn aforesaid in our said District without the consent of the Plffs or the said letters patent or at any time ~~having~~ obtained in writing did unlawfully make use and construct the said improvements so as exclusively secured by Patent to the Plffs - contrary to the form of the Statute of the U States made & passed on the twenty first Day of February and seventeen hundred & ninety three entitled an act to promote the progress of the useful arts and to repeal the act heretofore made for that purpose. By means of which and by force of another Statute of the United States made & passed on the seventeenth Day of April and eighteen hundred entitled an act to extend the privilege of obtaining patents for useful discoveries & inventions to certain persons therein mentioned and to enlarge and define the penalties for violating the rights of patentees the Defendants have forfeited to the Plffs a sum equal to three times the damage sustained by the Plffs from or by reason of the premises which actual damage the Plffs aver is equal to the sum of ten thousand Dollars and an action hath accrued to the Plffs to have and recover of the Defendants the sum of thirty thousand Dollars of all which the Defendants have had due notice - yet though often requested they have never paid the same but refuse.

To the damage of the said Plffs the sum of forty thousand dollars, which shall then and there be made to appear, with other due damages. And have you there this writ, with your doings therein. Witness the Hon. John Marshall Esq. ; at *Boston*, the fifteenth day of September in the year of our Lord, *one thousand eight hundred and eighteen*

Ed. Davis, Clerk.

United States of America
District of Mass.tts S.S.

Pursuant to the within precept I attached a Button the joint property of the defendants herein named & gave to each a summons in hand to appear as herein required =

Boston September 15, 1848

Fees
2 Summons $4
Travel — 75
$4.75

~~Deputy~~ J Spague Dep Mar

28
Barnett et al.
v. Hall et al.

Respondents
Atty for Appellants

The United States of America, —

To all to whom these ~~presents~~ Letters Patent shall come.

Whereas, Abner Stearns and William Barrett citizens of the United States, have alleged that they have invented a new and useful improvement being a mode of dyeing and finishing all kinds of silk woven goods which improvement they state has not been known or used before their application; have made oath that they do verily believe that they are the true inventors or discoverers of the said improvement; have paid into the treasury of the United States the sum of thirty dollars, delivered a receipt for the same, and presented a petition to the Secretary of State signifying a desire of obtaining an exclusive property in the said improvement, and praying that a Patent may be granted for that purpose: These are therefore to grant according to law, to the said Abner Stearns and William Barrett, their heirs administrators or assigns for the term of fourteen years from the twelfth day of May one thousand eight hundred and eighteen the full and exclusive right and liberty of making constructing, using and vending to others to be used, the said improvement; a description whereof is given in the words of the said Abner Stearns and William Barrett themselves in the Schedule hereto annexed and is made a part of these presents.

In testimony whereof, I have caused

these Letters to be made Patent and the Seal of the United States to be hereunto affixed. —

Given under my hand at the City of Washington this ninth day of September in the year of our Lord one thousand eight hundred and eighteen and of the independence of the United States of America the forty third.

Seal

James Monroe

By the President

John Quincy Adams

Secretary of State

City of Washington to wit. —

I do hereby certify that the foregoing Letters Patent were delivered to me on the ninth day of September in the year of our Lord one thousand eight hundred and eighteen to be examined that I have examined the same and find them conformable to law; and I do hereby return the same to the Secretary of State within fifteen days from the date aforesaid, to wit on this ninth day of September in the year aforesaid

Wm Wirt

Attorney General of the United States

The Schedule refered in these Letters Patent and making part of the same containing a description in the words of the said Abner Stearns and William Barrets of their improvement being a mode of dyeing and finishing all kinds of silk woven goods. —

The reel is designed to extend the silk when

immersed in the dye stuff so that this may pass freely and come in contact with the whole surface of the silk or material to be dyed and yet the silk or material shall occupy the smallest possible or convenient space in the dye tub. This machine consists of two setts of arms each resembling in form the hub and spokes of a wheel without the rim or fellies. In the hub of one is formed a female screw; in the other a smooth cylindrical hole in which one end of the axle may freely turn. The axle consists of a male screw except that one end thereof is turned smooth to adjust to the hole of the hub that is smooth and the other end is for an inch or two square to receive the eye of a winch or crank. It is about three or five feet long. The male screw of the axle is cut to fit the female screw in the hub having the same therein. The two setts of arms are besides connected with each other by two square bars of wood or metallic substance like the axle. One end of each is securely fixed to the hub having the smooth hole and the other ends are adjusted to square holes made in the other hub through which they slip or snap as the hubs or setts of arms are made to approach each other and thus prevent the hubs from turning as the screw axle is turned round for the purpose of ~~approaching~~ approximating or withdrawing the setts of arms to or from each other. Thus it is easy to perceive that with one sett of arms held on to the smooth cylindrical end of the axle by a pin and washer or otherwise so that the axle may freely turn therein or in the hub thereof

the other sets of arms having the female screw will be made to approximate to or recede from this as the screw axle may be turned to or from by a handle or winch affixed to the square end of the axle. The utility of this movement will presently appear — The hubs of the sets of arms may be made of any convenient size. the dimensions adopted in practice at present are as follows. The material any metal or metallic composition. The last however has been adopted in practice. The hub is about five inches in diameter and two inches through, is morticed to receive the arms which are flat square about sixteen inches long but tapering from the hub to the end. Upon the sides of these arms or spokes are secured small brass pins which are so-sets in groves cut into the sides of these arms transversely and diagonally that the pins point inward and upwards and divergently from the axle, The distance between these pins is quite small about three sixteenths of an inch.

The mode of applying the silk and immersing the same is as follows! — Both sets of arms being placed on the axle as above represented. The machine is supported by the axle on two standards outside of the arms horizontally. The set with the female screw is then approximated. by turning the winch, to a distance from the other a little less than the width of the material to be dyed. one end of the silk is then attached by the operator to opposite arms upon the pins thereon nearest to the axle, and then the operator turning the machine

a little from himself the silk is further attached to the next arms by the pins nearest the axle and so on successively till the whole is attached and wound round upon the machine in a spiral form, Then turning the Screw axle by the winch the set of arms having the female Screw therein recedes by a regular motion susceptible of the most accurate adjustment to the width of the silk, and thus it is held perfectly extended between the arms and by the selvidges in such a manner as not to be in contact with itself but to leave free passage for the dyestuff to apply itself equally to every part of the whole surface, and be in this state of tension it is immersed by operation of a tackle and fall attached to one end of the axle until it be properly saturated or dyed. It is obvious that the silk by this means may be most conveniently wound and most readily drained. - Also it is apparent that the position of the pins on the arms, they inclining upwards and bending a little from the operator, as he applies the silk, must facilitate both the application of the material for dyeing and the disengagement thereof after this operation is performed.

There has been it is said a reel heretofore in use for like purpose; but this if it ever were so used consisted of four arms or two Cross pieces adjusted to a square axle and the sets of arms were kept separate or fixed upon the axle not by a Screw but by pins passing through holes in said axle. Instead of pins affixed to the arms there were common ~~tent~~ tenter hooks,

driven into the inner side of the arms and the whole so constructed as to be utterly inapplicable to the purpose of dyeing silk or other goods without great injury. The machine for which these applicants claim a Patent is in all material respects an improvement upon this. The design of the silk frame is to extend the silk for drying and finishing and it is contemplated to use it for all kinds of goods which in the operation of dyeing require to be so extended. It is a wooden frame consisting of fourteen posts about four feet or more in height connected by rails in such manner as to be perfectly solid and firm. The opposite posts are connected by two strong rails of about eight feet in length one at bottom and one within a few inches of the top well morticed and tenanted into the posts. while two strong pieces of plank lying upon the bottom connecting rail leaving a space of about two feet more or less between them are firmly secured to these said bottom rails. A strong rail is fastened to the posts throughout the whole length of the frame and thus give it all requisite solidity and firmness. Upon the upper rail connecting the opposite posts which are placed at a distance of ten feet from post to post along the length of the frame are lain two pieces of plank sixty feet long and about eight or ten inches wide. These are made to move or slide on these upper rails so that when the silk is attached to their inner edges they may be withdrawn from each other till the requisite degree of tension is obtained

the mode in which the silk is attached to the edges of these cheeks and then the cheeks withdrawn is as follows The inner edges of the Cheeks are covered by a thin plate of Copper about half an inch wide nicely attached thereto Sixty pieces of wood cut from board or plank say from an inch to an inch and a half or two inches thick about a foot long on one side and cut up in triangular form are adjusted to each cheek. The base being as above one foot in length it is attached by hinges to the superior surface of the Cheeks in such manner that the edge of the base will coincide exactly with the inner edge of the cheek when the piece rests on its base. On this too there is a copper edging. and thus this copper edging when these pieces are raised upon their basis come closely in contact with the copper edges along the line of the inner edges of the Cheeks, and by firm pressure are made to hold the selvidges of the silk &c. — to the outer side of these pieces which are called lath joints are attached some iron stays about six or eight inches long being a little longer than the lath joints are wide or high. These stays are attached by a staple or eye to the upper part of the lath joints and the foot of each is made to slide into a groove cut in the superior surface of the Cheek and lined with copper so that by forcing the foot of the stay into the groove the lath joint is made to press firmly upon the selvidge of the silk when lain upon the Copper edge of the Cheek. The silk is first secured by one selvidge to one cheek, then the

other cheek being approximated sufficiently the operator in like manner applies the selvidge to the other cheek edge and secures it by successively raising up and securing the lap joints. — The former cheek is fastened to the upper rails by strong iron pins passing through this and the said connecting rails of opposite posts. The other cheek which is called the front cheek is then gradually withdrawn till the silk is perfectly extended. The mode of withdrawing the front cheek is thus. To this cheek opposite each post, all of which on this side rise two feet above the cheek are attached several pieces of iron long enough to reach through the posts on which pieces of iron are cut screw threads so that nuts being set on wheels and applied to said pieces of iron by the turning of all the wheels simultaneously and with equal velocity the whole front cheek is gradually withdrawn till the proper degree of tension in the silk is obtained. These wheels are put in motion by a chain band, carefully adjusted so that the links thereof embrace projections in the periphery and the power is applied indifferently to either wheel by a pin six or eight inches long thereto attached to serve as a handle or winch. There may be other modes of withdrawing the front cheek but the special subject of the Patent for which letters are claimed is the mode of securing the silk as above

described by lap joints and the gradual and exact tension obtained by the withdrawing of the whole front cheek simultaneously and equally at one operation as aforesaid. In these and in all material respects this frame is an improvement upon the pin frame formerly in use, and also a frame that was constructed to hold the selvidges by pieces of board lain flat upon the cheeks and pressed by wooden Screws attaching them to the Cheeks. The copper edges being a very considerable improvement on this last mentioned frame which had become useless by reason of the absorption of the dye stuff in the wooden edges of the cheeks and slabs or boards above mentioned. The silk being thus extended the ends thereof are secured by a crop bar ~~etc~~ with pins or by a piece of wood split so as to hold the ends and the whole is ready for the operation of drying and finishing which is done thus. — Upon the pieces of plank which are described as fastened upon the lower crop rails that connect opposite posts is placed a moveable car running on four wheels which is made to contain Coals and move at pleasure beneath the silk as the operator proceeds in the finishing. This being accomplished the silk is delivered from the lap joints by removing or sliding away the stays. and may be immediately folded for use. —

Abner Stearns.
William Barrett.

Witnesses Chs Pelham Curtis
Geo Sullivan
Loring P. Curtis

Time Exp. Letters Patent Mass. Dist. Court

55.

District Clerk's Office Boston Aug 18. 1820 Received the original Patent, of which the within is a Copy.

Abner Sparrows by Geo Lowell
his Attorney