

LIBRARY
RECEIVED
JUL 10 1897
DEPARTMENT OF
AGRICULTURE



EASTERN EDITION.

Entered at the Post-office at Springfield, Ohio, as second-class mail matter.

VOL. XX. NO. 19.

JULY 1, 1897.

TERMS (50 CENTS A YEAR. 24 NUMBERS.)

July Contest

4 First Prizes : ONE FOR WOMEN
ONE FOR MEN
ONE FOR GIRLS : 4 Bicycles Free
ONE FOR BOYS

And a Fine Book for EVERY ONE who
Guesses the Missing Word.

The prizes are given for supplying the ONE word
missing in the following sentence:

"The inhabitants of our — country have
lately had a useful lesson on this subject"

The sentence is from the sayings of a
great American statesman. It is easy and
the missing word is simple. See page 19.

FOR ONE MONTH ONLY Closes July 31

The Conditions The conditions pre-
cedent for sending a
guess at the missing word is that each
and every guess must be accompanied by a sub-
scription to Farm and Fireside. (Any of the
offers in this or past issues may be accepted.)

The 4 Bicycles will be awarded to the
FIRST woman, the
FIRST man, the FIRST girl and the FIRST boy
who name the missing word. Therefore, it
will be wise to send your guess without delay.

For a full description of the \$100 bicycles write
to the National Sewing Machine Co., Belvidere,
Illinois. Their fine catalogue will be sent free.

For full particulars see advertisement on page 19.

Publishers FARM AND FIRESIDE.



IN a recent letter to the New York "Sun," on the pay-
ment of trade balances, Mathew Marshall says:
"The excess of this country's exports over its imports
has been, since July 1, 1896, about \$300,000,000 in mer-
chandise and \$28,000,000 in silver. Had the payment of
this balance in our favor been made in gold we should
have imported that metal to the value of \$328,000,000,
whereas, in fact, our net imports of it during the period
mentioned have been less than \$60,000,000. The differ-
ence is partly accounted for by the interest and dividends
on investments remitted to foreign holders, and by
freights and passenger fares earned by foreign shipping;
but it is also made up to a large extent by the return
of securities to this market for sale. Great Britain,
on the other hand, imported in the year 1896 merchandise
to the value of \$700,000,000 more than her exports,

and yet her net exports of gold for the year were only
\$30,000,000, the difference of \$670,000,000 representing
the income of her people from the earnings of their ships
and from their investments in foreign countries, as well
as their sales of those investments in foreign markets.

"To the foreign holding of investments in this country
is due the fact that we need every year to make much
larger exports of gold in addition to merchandise and
silver than we otherwise should. Thus, in 1893, when
the nominal trade balance in our favor was about \$25,-
000,000, we were obliged to export \$87,500,000 in gold.
In 1894 the trade balance to our credit was \$265,000,000,
but we still exported gold to the amount of \$4,500,000.
In 1895 the excess of our exports was \$102,000,000, but
we had to export \$31,000,000 in gold besides. In 1896
our credit trade balance was \$120,000,000, and yet our
gold exports were \$79,000,000. Precisely how much
merchandise and silver is required every year to pay
what we owe abroad for interest and dividends and for
the services of foreign shipping can, therefore, be only
guessed at, but the indications are that it is steadily
becoming less, and that eventually this country will, like
Great Britain, be so full of rich people that we shall, as
a nation, be creditors instead of being, as we are now,
debtors.

"That time, however, is still too far off for us to begin
now to count upon it. At the moment, indeed, in the
absence of our usual activity of enterprise, we have
capital enough of our own to meet all demands for it,
and more, too, but this state of things will not always
continue. The immense undeveloped resources of the
country offer too inviting a field for money-making to be
forever neglected. With or without the new tariff
and with or without a reform of the currency, our people
are not going to sit down and do nothing but bewail
their reverses. Sooner or later a few choice spirits will



F. H. SNOW, PH.D., LL.D.

lead in breaking up the prevailing stagnation, and the
rest will follow. It has happened so a dozen times
before in our history, and it will happen again. When
it happens we shall want to invite the assistance of
foreign capital, as we have on previous similar occasions,
and we ought to prepare to get it and to keep it on the
most advantageous terms.

"No argument is needed to show that the essential
requisite to securing foreign capital for use in this coun-
try is to inspire confidence in its owners that it will be
safe in our hands. Not only must they be assured that

the money which we ask them to lend us will be wisely
employed, or, at least, so wisely that its borrowers will
be able to pay the interest upon it which they agree to
pay, but its payment must also be assured in money
of the same value as that which is lent."

JUNE 3d was Farmers' Jubilee Day at Wooster. The
auspicious occasion was the dedication of the "Admin-
istration Building" of the Ohio Agricultural Experiment
Station. With impressive ceremonies, consisting in part
of a civic and military parade and appropriate addresses
by distinguished men, this beautiful building was for-
mally dedicated to the noble use for which it was con-
structed—the advancement of agriculture. It is the
main, or office, building on the magnificent farm of four
hundred and seventy acres that is devoted wholly to
experiment work in agriculture for the direct betterment
of farming as a business, and indirectly for the benefit
of the common welfare of the whole country.

In 1881 Colonel J. H. Brigham, then a member of the
Ohio assembly, and Professor Wm. R. Lazenby framed
the bill under which the Ohio experiment station was
organized, it being the sixth established in the United
States. In 1891 and 1892 it was removed from the
university farm at Columbus to a most beautiful and
serviceable location in Wayne county. During its whole
history the Ohio station has been under able and success-
ful management, and to-day it ranks among the best in
the country. The members of its board of control have
been untiringly devoted to its best interests. The station
workers have succeeded admirably in their labors to
make the institution one of permanent, practical use-
fulness to the farmers of Ohio, and, indeed, of the whole
country. They deserve to have placed in their hands
the best equipment possible. Director Thorne and the
other members of the station staff are to be congrat-
ulated on their new home.

One of the speakers, Dr. E. W. Allen, in the course of
his address said:

"The enduring character of the buildings which we
have gathered here to dedicate itself bespeaks perma-
nency. Born of a need felt by the farmer for assis-
tance in coping with the elements, the station has made
a steady, healthy growth, until at present it has reached
a point where it is indispensable to the farmer and
horticulturist."

CHANCELLOR F. H. SNOW, of the University of
Kansas, was born June 29, 1840, in Fitchburg,
Mass. His preparatory education was received in the
Fitchburg high school. He entered the freshman class
of Williams College in 1858, and graduated with the
highest honors in 1862. After teaching one year in
the Fitchburg high school he entered Andover Theolog-
ical Seminary, and graduated from that institution in
1866.

In the fall of the same year he entered the University
of Kansas as professor of mathematics and natural
science. Three years later he was made professor of
natural history, and devoted himself to the studies of
botany, entomology, climatology and ornithology up to
1890, when he was elected chancellor of the university.

Outside of his work as chancellor Professor Snow is
known chiefly as a botanist, entomologist and ornithol-
ogist. He has completed a catalogue of the birds of
Kansas, and has published a catalogue of the insects
of Kansas, Colorado and New Mexico. In his ento-
mological work he has discovered about two hundred
new species of insects of all orders, particularly the
lepidoptera and coleoptera.

Dr. Snow was married in Andover, Mass., to Miss
Jennie A. Aiken, of that place, and they are the parents
of five children, all of whom are living.

FARM AND FIRESIDE

PUBLISHED BY

MAST, CROWELL & KIRKPATRICK.

OFFICES:

108 Times Building,
New York City.Springfield,
Ohio.1643 Monadnock Block,
Chicago, Illinois.

Subscriptions and all business letters may be addressed to "FARM AND FIRESIDE," at either one of the above-mentioned offices; letters for the Editor should be marked EDITOR.

TERMS OF SUBSCRIPTION:

One Year - (24 Numbers) - 50 Cents.
Six Months - (12 Numbers) - 30 Cents.

The above rates include the payment of postage by us. All subscriptions commence with the issue on press when order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and family journals are issued.

Payment, when sent by mail, should be made in Express or Post-office Money-orders, Bank Checks or Drafts. WHEN NEITHER OF THESE CAN BE PROCURED, send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. DO NOT SEND CHECKS ON BANKS IN SMALL TOWNS.

Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelop and get lost.

Postage-stamps will be received in payment for subscriptions in sums less than one dollar, if for every 25 cents in stamps you add one-cent stamp extra, because we must sell postage-stamps at a loss.

The date on the "yellow label" shows the time to which each subscriber has paid. Thus: Jan 98, means that the subscription is paid up to January 1, 1898; Feb 98, to February 15, 1898, and so on.

When money is received, the date will be changed within four weeks, which will answer for a receipt.

When renewing your subscription, do not fail to say it is a renewal. If all our subscribers will do this, a great deal of trouble will be avoided. Also give your name and initials just as now on the yellow address label; don't change it to some other member of the family; if the paper is now coming in your wife's name, sign her name, just as it is on label, to your letter of renewal. Always name your post-office.

The Advertisers in This Paper.

We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it. Always mention this paper when answering advertisements, as advertisers often have different things advertised in several papers.

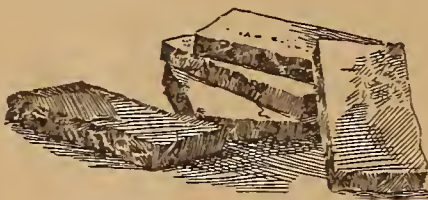
NOTES ON RURAL AFFAIRS.

Mushroom-growing. Mushrooms, gathered from the meadows or from cultivated beds alike, always are an enjoyable thing, and there are few people who would not like them. But there is also a great charm connected with growing them. The mystery that surrounds them and their growth is what seems an additional attraction. The mushroom, a regular jumping-jack, springs up all at once—over night. First you don't see it, and all at once there it is! But what you do see above ground is the fruit of the plant, not the plant itself. The latter grows under ground, and consists of a network of whitish threads—the mycelium, or spawn. I frequently dabble a little in mushroom culture, sometimes with and sometimes without much success; but I always find it interesting and pleasing.

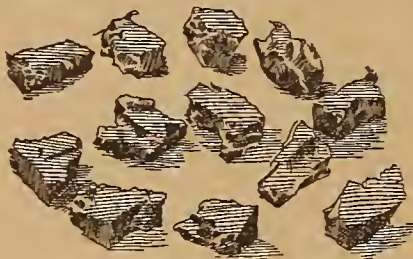
* * *

Mushroom Bulletins. Mr. William Falconer is one of our most noted experts in this field. His book on "Mushroom Culture," published by the Orange Judd Company a few years ago, is probably by far the best treatise on the subject in existence; but its price (\$1.50) was considered too high for many who only wanted to try the mushroom business on a very small scale. Now this same authority has written a pamphlet, "How to Grow Mushrooms," which is published for gratuitous distribution as Farmers' Bulletin No. 53 under the supervision of the division of vegetable physiology and pathology. It gives the gist of the whole business in a few pages of text interspersed with a number of telling illustrations. Your congressman will get this for you free of charge, or it can be had by addressing a request for it to the Department of Agriculture in Washington direct. If you are in any way interested in mushrooms, you want this bulletin. Besides this, it is promised that the subject of mushrooms will be further treated in a bulletin to be issued in a few months, which will be devoted to descriptions of edible and poisonous species, with special reference to their identification.

Wild Mushrooms. The common meadow mushroom (Agaricus campestris) is easily recognized by anybody who has eyes to see. I know of no poisonous species that one could mistake for this old favorite. Last fall I gathered fine specimens of the meadow mushroom by the basketful in an old orchard, and we did enjoy them. Yet large quantities of them grow and die down without ever being gathered; in many cases simply because people are afraid of mushrooms, in others because they have not yet learned to appreciate them for food. If we have a rich old pasture-lot that does not from its own accord produce mushrooms, we may be able to make it do so by inserting pieces of spawn here and there. The bulletin does not say anything about this, but it is a simple and easy matter. Just buy a few pounds of brick-spawn, such as any seedsman keeps in stock. Only be sure it is freshly imported. It should show the bluish-white threads (mycelium) all through, and have a perceptible mushroom smell. These bricks measure about 8 $\frac{3}{4}$ by 5 $\frac{5}{8}$ by 1 $\frac{3}{8}$ inches, and weigh one pound four and one fourth ounces. Break them into pieces, as shown in illustration. Then with a spade cut into the sod, prying up a flap of it, drop a piece of spawn under it, and let



ENGLISH, OR BRICK, SPAWN.



BRICK BROKEN INTO PIECES READY FOR PLANTING.

the sod fall back into place. Repeat this in the richest spots of the pasture-lot, and await developments. If you do this job without delay, and the season is fairly favorable, you may look for the mushrooms in September or October.

* * *

Fertility of the Land. Just at present there seems to be no lack of good literature on agricultural topics. Professor Roberts (whose ideas on "Tillage versus Maure" were alluded to in FARM AND FIRESIDE of June 1st) comes out with another book, the "Fertility of the Land," and a good one it is (one of the rural science series edited by Professor L. H. Bailey). Professor Roberts has much to say about plowing, and just as much about fitting the soil after plowing. My first experience with the soil was restricted almost entirely to loose, gravelly or sandy loams, and I had come to the conclusion that plowing was the chief work—about seven eighths—of fitting the soil for planting. It is only in later years that I had to deal with the stiffer kinds of soil, and I fully appreciate the truth of what Professor Roberts says about the need of thoroughness in fitting soils for planting. I quote some sentences:

* * *

"One of the chief objects in plowing is to pulverize the soil. The plow may invert it in the most perfect manner, and bury surface vegetation; but if it fails to do the greater part of the fining of the soil as well, and leave it in such a condition that the harrow and cultivator cannot complete the work in the cheapest and best manner, it is seriously defective. . . . The surface tillage which may be necessary to finish the land should be kept prominently in view when plowing. The manner of plowing sandy and friable lands matters little so far as the total cost of the whole season's tillage is concerned, but on tenacious soils the plowing often represents not more than one third to one fifth of the cost of suitably preparing the first eight inches of the surface for some kinds of plants. If a tenacious soil, covered with a tough sod, be plowed with the help of a colter attachment, and a furrow slice be nearly flat, it is nearly impossible to fit the land well until the sod has rotted and the land has

been replowed. . . . Plowing is poor that fails to do the greater part of the rough pulverizing, and to leave the surface in the best possible condition for the effective use of the implements which are to follow. This can certainly be done without sacrificing any of the other benefits which should be secured by plowing. The old couplet,

"He that by the plow would thrive
Himself must either hold or drive,

"has become obsolete. May not the following be substituted for it?

"He that would good plowing view
Should think what else is left to do."

* * *

This lesson of Professor Roberts should be more deeply impressed on our farm practices. Too many fields are planted without proper preparation. The roller, the disk-pulverizers, the various harrows, etc. (whatever seems to answer the purpose best), should be kept going until the field is as smooth and fine "as an ash heap," and this no matter what the crop to be planted may be. For common grain crops it may be even more necessary than for bood crops, as the former receive no after-cultivation, while the soil for the latter may yet be fined in some measure by means of cultivators and hoes. The most satisfactory grain-farming I have ever done was where I put the soil in as fine condition as if intended for garden crops. I usually finish every field with the Meeker harrow, in case of grains, after sowing.

* * *

Cows Dying

After Calving.

In this vicinity quite a large number of cows—good ones and well kept—have died shortly after calving, from a kind of apoplexy or paralysis. The cows seem all right. The disease comes on all at once, the animal loses its power of locomotion, one after another its organs become paralyzed, and in a few days all is over. Dr. C. D. Smead, whom I asked about this, says: "The trouble is parturient apoplexy produced by a combination of causes. The best of the cows are the ones that have this ailment. It can be largely prevented if cow-owners will, two weeks before the expected birth of the calf, give the cows three fourths of a pound of Epsom salts and one half ounce of gentian dissolved in a quart of water and poured down from a bottle. Repeat weekly until the calf is born. Then immediately give another dose." I shall be careful hereafter to use this preventive in every case.

T. GREINER.

SALIENT FARM NOTES.

Yesterday a farmer jumped upon me, as the wicked say, with both feet because prices of grain—corn and oats—are not away up and still climbing.

"You fellows," said he, "promised us good times—prosperity—as soon as you got control of the government! Where is your prosperity? Where are your good times? Corn selling at eighteen cents and oats at fifteen cents. I should think you would feel pretty cheap with such figures staring you in the face!"

It is customary for men to wax hot and use bad argument when touching upon things that are sometimes mixed in with politics, but that is foolish. Furthermore, the prices of corn and oats do not come within the sphere of politics, and are not regulated thereby to any appreciable extent. I asked my friend what he was doing to bring about prosperity, which, according to his ideas, seems to depend entirely upon the price of corn and oats. Are you growing more corn and oats when the markets are already overstocked with both? Are you going about complaining and berating the government because a glutted market, which you are doing your utmost to still further glut, does not improve?

Wouldn't it be better and more satisfactory all around for all of us to cease whining about low prices and berating the government because everything is not exactly as we would like it? Wouldn't it be better to make the best of things; to speak encouraging words to our neighbor; to take full advantage of our opportunities; to improve our methods, and try to manage our affairs in a careful, economical and businesslike manner? Let us keep in mind the fact that a good, hearty, honest patriot and a careful, intelligent

management of our own affairs will do a good deal more toward bringing prosperity to both ourselves and the whole country than all the whining and wearisome complaining in the world.

* * *

I see that the price of good hogs ranges along at thirty to thirty-five cents for corn that is fed to them intelligently. I note also that the market for good bacon (clover and corn) hogs is not suffering from any glut. First-class milk-cows are wanted at high prices. Good horses—not spindle-legged racers that are just fast enough to get heated, but good, active draft animals—are in demand at figures that make those who are raising them feel good. Prices for good mutton—farm sheep—are creeping upward, with indications of a strong demand in the near future. Even wheat is a fair price, and the outlook seems to show that this price will be maintained, probably increased.

Dun & Co. report that the actual sales in leading houses in each line of business in the principal cities east of the Rocky mountains average only about ten per cent less than in April, 1892, the year of largest business hitherto, and six per cent more than in the same month last year.

So it will be seen that if we look a little beyond the market for corn and oats we will see that the tide of prosperity is set our way, and that there is no necessity for whining.

* * *

There is one thing all farmers should keep in mind, and that is that pay-day is positively certain to come along. If he buys anything on credit, it will have to be paid for. Many men shut their eyes to the future, and buy anyway, and trust to "luck" for the cash wherewith to settle. Such men are constantly in trouble. A short time ago one of our grocery-stores adopted the cash system. The cash had to be paid down for everything that went out of the store. Customers who had dealt there for years went to other stores, while people who had been paying cash at other stores for years changed to this to get the benefit of the lower prices, the cash store having reduced prices on all classes of goods ten to twenty per cent.

* * *

It was an eye-opener to note who forsook the cash store and lower prices and went where they could get credit, and also who forsook the others and began doing business with the cash store. Not all those who are generally supposed to be "well fixed" traded with the cash store, nor did all of those who are struggling to make a living seek credit. Those who pay as they go and object to paying a profit large enough to cover other people's debts are the cash men.

* * *

The farmer who pays as he goes is not complaining about hard times. He has to deny himself some things he would like to have, but no debts are harassing him. He is vastly better off than the machinist or factory hand whose entire income is cut off by an adverse turn in the market, and who is then likely to find himself without the means wherewith to buy a single meal.

If I am not badly mistaken, all signs indicate a return of better times. We have been adjusting our affairs to meet the changed condition of things. The railway-building boom came to an end some years ago. There will never be another like it in this country. The best lands in the West are occupied by settlers. There will be no more "westward ho!" no more great expansion of bonanza agriculture. Let us keep our senses, encourage those who feel downcast, buy and sell to the best advantage, and pay as we go, and we will soon become the most prosperous people on earth. FRED GRUNDY.

ILLINOIS BUTTERINE LAW.

June 14th Governor Tanner signed the butterine bill passed by the late legislature of Illinois. In substance this law prohibits the coloring of oleomargarine and butterine. Its effect is to put these substitutes for butter on the markets of Illinois in their own color. They cannot be made to look like butter. The enactment of this law against the fraudulent sale of butter imitations is a triumph for Illinois dairymen.

Our Farm.

FARM THEORY AND PRACTICE.

CLEAN WHEAT.—There is no excuse for the presence of rye, cockle or chess in wheat at harvest-time. It is not always possible to have absolutely clean seed, and weed-seeds are in the soil, but it is practicable to clean the standing grain when these weed pests appear. Rye shoots up much higher than the wheat, and cockle has a blossom easily seen. Taking two drill widths at a through, a man can pass over an acre of wheat very quickly, clipping off the heads or blossoms of these undesirable plants. We have too much thoroughbred cockle in the country. The fanning-mills take out the lighter and smaller grains of cockle, but too often leave the largest grains in the seed. In this way we have been raising the standard for cockle until some of it is as heavy as wheat-grains. It, together with rye and other filth in wheat, can be wholly eradicated by a little care before wheat harvest. Lowlands often have some docks in the wheat, and seed is ripened before harvest. Getting into the manure, they are carried back to cultivated fields. A watch should be kept for these, and an ounce of prevention saves the cost of a pound of cure.

CLEANING MEADOWS.—A weedy meadow is a nuisance, and such about this wet season. It is a good rule that a meadow is worth cleaning of weeds if it is worth letting stand for hay. It is a matter of surprise to me that the practice of cutting filth out of meadows before hay harvest is not more general, especially when the hay is wanted for market. One cannot afford to put foul hay upon the market for what it will bring, nor can he well afford to let weeds choke out hay that is wanted for home use. The right implement for cleaning grass is a sharp scythe, and the right time is before the grass heads out. Whitetop is the worst weed with which we have to contend, and yet it is easily mastered. When let alone it makes a rank growth, but if cut a few inches from the ground while young and full of sap, it can hardly be seen in the hay. In good grass that has some filth in it the time of a man with a sharp scythe is worth five to ten dollars a day. It cost me four dollars' worth of time this year to clean fifteen acres of grass that would readily sell for twenty-five dollars more than it would have brought without cleaning. The hay looks better, is better, and there is more of it.

FARM ROADS.—The load of wheat or hay that can be drawn to the barn is measured by the worst place in the farm road leading to the barn. This may seem a small matter, but it is not so on thousands of farms. I cannot afford to have a bad place in the road, because time and wages of men are going on while the team is stalled or taking only three fourths of a load to escape stalling. A day's work of man and team, filling gullies and chucks, and doing a little grading of steep bluffs, would be worth twenty dollars on a few farms with which I am acquainted. It would save wear of wagon, team and driver's temper, and make it possible to increase the size of loads without danger of overloading. This work should be done thoroughly and on time. I prefer having it done a month before harvest, so that some wear may make it smooth. These are "details," but details count. A man will spend half a dollar to go to a circus and be happy two hours, while that half a dollar expended in permanently getting rid of some nuisance would save him from being mad a month, if all the little vexatious times could be shoved together and be thus measured.

REPAIRS FOR MACHINERY.—When a machine is bought its number and correct name should be written down in a memorandum-book, so that they may be known when grease and dirt or new paint have obliterated them on the machine. Then, when ordering repairs, the name and number should always be given. Manufacturers are always making some changes, and parts made for machines of one year may not fit machines of the next year's make. This is especially true of comparatively new models of harvesting-machinery. If the number of the machine and number of the needed part are given, there

should be no danger of misfits, though even then I am not always able to get what is ordered. It is my experience that it is unwise to buy any new machine of a transient agent on account of the difficulty of getting repairs. It is better to have farm implements of such "makes" as are in common use in the country, as then repairs are kept on hand by a dealer near at hand. The importance of this point will be recognized by those who have been compelled to hunt up manufacturers when ordering the simplest supplies for a machine.

WHERE PLANTAIN ABOUNDS.—I observe many clover-fields badly infested with plantain. The hay crop is fairly good, but the seed crop will be worthless, and if the plantain is allowed to stand until winter, its seed will make the ground filthy for years. Often the clover sod is wanted for a spring crop, and it is not easy to see how the plantain may be prevented from seeding. Mowing does very little good, the plants forming seed near the ground late in the season, regardless of continued clipping. Having one such field this year, a legacy of some neglect years ago, my plan is to turn the sod before the plantain ripens seed, and then sow rye. This means some extra expense, but I believe that part of it will be made good by increase in yield of next year's crop. The rye will add a lot of vegetable matter for turning under next spring, the second plowing will place the rotted clover-roots back near the surface, where they will do the most good, and thus the whole cost of the one breaking is not chargeable to the plantain. Even if it were, I should break the ground and seed to the rye, as the plantain must be killed out for the sake of cleaner clover in the future. The prevalence of this weed-seed in the cloverseed upon the market indicates its wide distribution over the country, and its resultant harmfulness.

DAVID.

SUGAR-BEETS.

The farmers of Utah cultivate over three thousand acres of sugar-beets every year. This acreage yields between 40,000 and 50,000 tons of beets, which are made into sugar. The one sugar-factory produces 5,250,000 pounds annually, all of which finds a market within the state. This factory furnishes employment for more than one thousand men, women and children, engaged in growing and harvesting the beets and manufacturing the sugar. In addition to the labor employed directly in beet culture and sugar manufacture, not less than five thousand tons of coal and two thousand tons of lime-rock are required. Sugar-bags and their manufacture, together with many smaller necessities, add the number of laborers employed, directly and indirectly, to almost three thousand people. As the consumption of sugar in Utah averages almost one hundred pounds a head, there is room in this state for a half dozen such factories as the one in operation in order to supply the local demand.

Sugar-beet culture has increased the demand for small farms, and made the practice of intensive farming more popular and profitable. An acre of good soil, well cultivated and properly irrigated, will easily yield twenty-five tons of marketable beets, but many inexperienced farmers harvest less than fifteen tons to the acre. The prices obtained run from \$3.50 to \$4.50 a ton, according to the amount of saccharine matter contained in the respective lots. Good beets contain from twelve to fifteen per cent of sugar substance. The long leaves collect a substance known as hydrocarbon from the heat and moisture of the atmosphere. This is transferred to the roots, and upon the amount of such secretion depends the value of the beets. The climate, soil and cultivation determine whether or not any particular section is adapted to growing sugar-beets, while a good-sized factory must be the market.

The typical sugar-beet weighs about one pound or more. An average weight of a little less than a pound is considered the best beet in European countries. The tuber is a long, white root resembling the parsnip. It grows to a depth of several inches, and sends out small rootlets or fibers in search of food and moisture. A car-load of sugar-beets, side-tracked at Lehi, the factory town, is quite a curiosity to eastern tourists, who always take a few for Mormon souvenirs. The beet is a strong drought-resisting plant, and will grow to great depths in good soil during dry seasons. There are six distinct

varieties, all of which are good for feeding purposes and add much to the product of the dairy. Any soil that will produce other root crops is good for the sugar-beet, but as a general rule the better the soil, the more productive are all crops.

Most of the sugar-beet seed planted in Utah is imported every year from Germany or France, and furnished the farmers by the sugar company. The seed is planted as early as possible in the spring, in drills, with the furrows about twenty inches apart. When the plants appear above the ground cultivation begins with small weeding-plows. Irrigation is not commenced until the plants are seven weeks old. The water is generally applied by the furrow system three or four times during a season. When the plants are of sufficient height hand-weeding is necessary. In this operation the weeder uses a small crooked instrument much like a corn-husker, and gets down on his knees as in weeding onions. The plants are thinned about three inches apart and cultivated as the garden-beet or other crops. No weeds are permitted to grow and seed in the beet-field.

After the sugar-producing juices are extracted from the beets the pulp is a most valuable stock food. The Utah sugar-factory supplies the pulp of over forty thousand tons of beets for feeding an immense herd of stock. The farmers in the vicinity of the factory purchase many tons of this refuse, and use it in fattening hogs. An extensive silo system is carried on at the factory, and the pulp is dumped from cars into the vats on either side of the switch extending to the feeding-pens. The pulp is added to regular rations of hay and grain, and constitutes a perfect fattening food. The fertilizing qualities of sugar-beet pulp add materially to its value. Many fields are enriched by a heavy coating of pulp, and the production of some crops is increased by plowing under the pith of the beet. A low grade of molasses and a fair quality of vinegar are also some of the productions of the sugar-beet.

JOEL SHOMAKER.

THE PATIENT COW.

Much has been written about the horse, his treatment and training and the cruelty practised upon him—and not a word too much—but of the cow not so much has appeared in print, for various reasons, one of which is that the cow in some respects is inferior to the horse. Certainly the cow is inferior to the horse in intelligence, yet it is hardly fair to compare her with the horse, as the two animals were created for purposes widely different.

Occasionally, however, the cow exhibits extraordinary intelligence. A farmer sold a cow with many wrinkles on her horns to a neighbor whose pasture adjoined. Some time after the sale the farmer who sold the cow, working in the field with his men, saw the old cow in the neighbor's pasture hooking down a section of fence, and after she had succeeded she entered the pasture where she had spent several years of her life, walked straight to a spring, drank her fill, and then returned immediately to the pasture she had left through the opening she had made. Water was scarce in the new pasture, and she "knew" that in the old pasture was a good spring.

It was not remarkable that the cow should break the fence to go to the spring, but it was remarkable that she went straight back to the pasture in which she belonged. Instinct or thirst might lead her to water, but what led her back?

Many persons appear to think that the cow is a nerveless, insensible creature that can endure hunger and cold until it is convenient to relieve her.

Again, many persons appear to believe that the cow does not require any exercise (what they call exercise), because she does not take exercise when she has opportunity, and therefore she may be tied to the stallion from September to May. There may be excuse for this on the part of persons who are destitute of sense, for the cow does take little exercise, or what some are pleased to call exercise. The cow walks slowly to pasture, grazes awhile, short or long, according to the abundance of the feed, and then lies down as though tired, and chews the cud; and is up again and then down, through the day. There is not much exercise in that, but it is enough and of the right kind to suit the cow (and her owner), and make her what she is intended to be—a milk making or producing animal.

A sedate man went to board in the country. The landlord asked him if he should take exercise, and he replied:

"Certainly; every day."

The guest wondered why he was asked this question, but he found out later. About a week afterward the landlord remarked:

"I thought you said that you should take exercise every day. When are you going to begin?"

"Begin?" replied the guest. "Why, I've begun already! I walk five or six miles every day."

"Humph!" exclaimed the landlord, "call that exercise?"

"Yes. What do you call exercise?" asked the guest.

"Why, run ten or twelve miles out and back every day, throw clubs, play tennis, and, for example, place your hand on the top rail of that gate out there and vault back and forth as long as you can without stopping."

The laughable part of this was that the landlord, supposing that his guest would run and jump and thus demand more food, had charged him accordingly; but being honorable, he reduced the price when he learned what kind of exercise his guest wanted.

Any one having this idea of "exercise," and applying it to the cow, may imagine that the cow needs none. The cow stands (in many barns) from fall until spring, and the bull (no wonder he is dangerous) may stand the year round, and the farmer does not see any wrong in it; but if his horses remain in the stable a week he must take them out for exercise. Exercise of the right kind is as necessary for the cow as for the horse.

Owing to apparent sluggish nature of the cow she has been abused and tortured beyond the power of tongue to tell. It is an extraordinary fact that men sixty and seventy years of age, who have spent their lives on farms with cows, do not know how to aid a cow to drop her calf, and the tortures inflicted at this critical time are too horrible to repeat; and these were humane men, too, men who would quarrel with a man for whipping a horse, but their ignorance and their lack of appreciation of the nature of the animal led them to inflict terrible cruelty.

At one of the large cattle markets of the country, held every week, a kind of cruelty is practised that has attracted the attention of every humane man who has visited the market. As the visitor approaches the market he hears the hellowing of cattle. Now, a cow does not hellow without cause, and the least cause, perhaps, is loneliness. If a cow from a herd is shut up or turned into a pasture by herself, she will bellow; when her calf is taken away she bellows, and she bellows when she is hungry or thirsty. One of our cows in June came to the bars and bellowed about four o'clock in the afternoon, and some one must go and milk her. The udder was so full that it ached, and she called for relief.

At the market referred to the bellow of cattle may proceed from various causes, but it is caused chiefly by aching udders. Men (traders and farmers) go to the market to buy cattle by the car-load or to buy single animals, and the buyer's wife may go with him, for the wife may be interested in the color of the cow or her natural beauty generally. Now, to sell a cow to advantage it is necessary to show the buyer a large and prominent udder. Therefore, the cows intended for this market are not milked for one, two, three or four days, according to the secretion, before the day of holding the market, for the express purpose of distending the udder that they may appear to be great milkers. And there the cows stand with aching bags and bellow until the market is over or they are sold. This goes on every week, year after year. It is a terrible torture inflicted upon an innocent animal for the purpose of gain. There is law enough to stop it, but it is not stopped.

Let all remember who have to do with cows that the cow is not a cold-blooded automaton, insensible to heat, cold or hunger, and that she can feel the prick of a pin as keenly as the most spirited horse. And if at calving-time there is any interference with nature, do nothing if you do not know what to do, and call some one who does. If our agricultural colleges are turning out farmers (about which there appears to be some doubt), veterinary science as applied to the cow should be a more prominent department than it is now.

GEORGE APPLETON.

Our Farm.

NOTES FROM GARDEN AND FIELD.

THE BEAN AND PEA WEEVIL.—

Several of our readers again ask about these insects and what to do for them. What I do in the first place is to plant no seed peas or beans that have live weevils in them. If we do, we will surely have buggy peas and beans again. The weevil, either in the larva state or as a mature insect, winters over in the stored seed, and comes out in the spring or when the conditions are favorable. Then when the peas or beans are in bloom, the old female deposits her eggs in the blossom or the young pod. When the old bugs were very plentiful on peas in bloom, I have sometimes tried to kill them by spraying with buhach-water; that is, water into which a small quantity of buhach, or California insect-powder, has been stirred. On several occasions I have thought that this helped matters somewhat. But if the old weevils are on the place or on a neighbor's place, I think we are pretty sure to find more or less wormy peas or beans. I know of no sure plan to prevent the old bugs from depositing their eggs on these plants, except that we kill them before we plant the seed, and while yet inside of the pea or bean. The bisulphid of carbon treatment will do that, as often stated, and the sooner that the seed after being harvested is subjected to this treatment, the less damage will be done by the larva inside the seed to the seed's vitality and germinating power, and the less damage we will have to fear from the weevil in future. I am sure we have little reason to find fault with our seedsmen. At least I cannot remember a single instance that I have received weevil-eaten seed peas or beans from any of the seedsmen that I have dealt with during the last four or five years. The trouble is usually with our home-grown peas, and sometimes beans. In many instances we store up for next season's use a lot of home-grown, freshly gathered peas or beans that show no exterior signs of bugs, and yet when we open the bags or sacks next spring, especially if they have been kept in a rather warm place for a time, a whole swarm of full-grown weevils may greet us, to our dismay. The best thing to do then is to put a small quantity of strong insect-powder (such as buhach) into each bag or sack, and shake it among the peas. This will kill the weevils, and if the peas or beans are not too badly eaten already, they may be used for seed. We might also kill the bugs by immersing the peas or beans for a few moments into hot water or exposing them for a longer time to a temperature of about 140 degrees Fahrenheit. The bean-weevil will sometimes breed in stored beans, and on opening a package of seed-beans that had been kept over, unopened, until the second year, I have repeatedly found live bugs, and the beans all eaten up so that little else remained but dust.

SEEDLESS MELONS.—The great objection that I have to watermelons is the way that the seeds are distributed all through the flesh. For this reason I am very fond of the seedless core, and care very little about the other part. If we could get an entirely seedless watermelon, it would be quite an acquisition, at least in my estimation. Rose Seelye Miller holds out a very tempting suggestion (in New York "Tribune") as follows: "Plant the seed as usual. When the vines have grown to a length of some three or four feet, cover the stalk at the third or fourth leaf, and keep it covered, and in time it will take root. At the end of two or three weeks this will be accomplished, and the new plant should then be severed from the parent stalk. This new plant will, or should, produce seedless fruit or vegetables, as the case may be. Think of having a seedless watermelon, the transparent, juicy pulp with no seeds to hinder your enjoyment! Think of having a muskmelon sweet and luscious to its center! Is not this worth trying for, worth a little experimenting? I think so. Possibly some varieties will respond more readily than others, but it will be little trouble to try and see what may be done."

What a tempting prospect, indeed! Yet, dear Rose, it is a delusion and a snare. Why should a layer plant or a cutting produce fruit materially different from the

parent plant? Whether it should or not, however, experience shows that it will not. The squash grown on a layered branch, when all connection with the ground by means of the original stalk and root was entirely cut off by squash-borers, was as full of seeds as the other that grew on another vine with natural root. Will the fruit of a gooseberry branchlet layered and rooted at the tip, and then cut off from the old bush, stand up instead of hanging down? Not much. Or will it be seedless? Surely not.

* * *

From what I have said here it should not be inferred that I consider it impossible to get a seedless melon. We have a number of seedless fruits. The banana has no seed. The pepino (a very interesting plant which I grew and fruited with some success in New Jersey, as reported in these columns at the time, I think) is seedless. We have seedless pears, etc. The tomatoes which I grow in the greenhouse during the winter are almost invariably without seed, solid all the way through, but small. The English frame cucumbers are usually seedless. Why should we not succeed in securing a seedless melon after awhile also?

The seedless tomato is the result of failure in pollination. So is the seedless cucumber; and if we want a seedless melon we must find means to have the fruit "set" without the interference of pollen, which would result in seed production. It can only be the virgin melon which grows without seed. The trouble is that the young melon or squash, when not brought in contact with the male element, usually refuses to grow. It simply shrivels up and drops off. How can we make it stay on and grow? I do not know.

* * *

GROWING PICKLING ONIONS.—"In the production of pickling onions about twenty-five or thirty pounds of seed to the acre should be sown. No variety is better adapted to this purpose than the Barletta. The bulbs when harvested should be as uniform in size as possible. Onions measuring from three fourths of an inch to one and one half inches in diameter are the proper size for this purpose." I quote this from a recent bulletin (Farmers' Bulletin No. 39) issued by the United States Department of Agriculture on the subject of "Onion Culture." As I have stated in these columns, the Barletta onion is one of my most satisfactory and most profitable crops. I have quite a patch of them this year. But I find that for best results I must sow at the rate of fifty to sixty pounds of seed to the acre. This onion grows quickly, but never very large. Now and then I have specimens measuring nearly two inches across; but my customers call for the smaller sizes, preferring the very smallest, and willingly paying a much bigger price for them than for the larger ones. The same bulletin also says that "the Barletta variety may be sown for early use." True, it is early. But I have never found it to be fit for anything except pickling. It is too small. I think I would prefer the New Queen, which is but little later, and considerably larger, although well adapted for a pickling onion also.

T. GREINER.

WESTERN NEW YORK FRUIT NOTES.

In making preparations to plant several hundred pear-trees recently, a farmer friend argued the "unprofitable side" of the matter. He thinks when the trees now planted come into bearing prices will be down, and there will surely be no money in it, as there scarcely is at present, in his opinion. The arguments have made no serious impression upon me, as the planting goes forward. The trouble with most of these parties who see "no money in it" is that they do not go about it in the right way. You will see them "stick" in a few pear-trees here and there about the buildings, where they scarcely have any cultivation; then if they bear, at best the fruit will not be first-class, and they will not secure the top price. Their product goes begging in the market. I prepare the ground by thorough cultivation and heavy manuring, and putting in a row of drain-tile between every other row of trees, being sure that I have the right kind of soil to start with. I keep up the cultivation and manuring. The older the trees, the heavier the manuring—not a light coat of it, but three or four

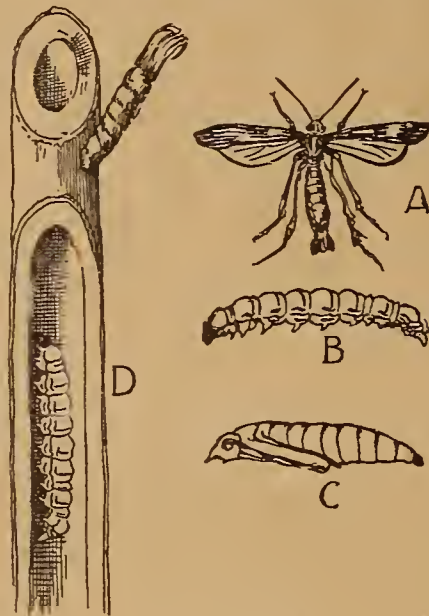
times as much as farmers usually apply—the more the better, and it is in this extra manuring and cultivation that the extra profit lies.

I have in mind a party who has about two acres of Bartlett pears in full bearing, and under such care they seldom fail of a good crop. I think he sells on an average not less than \$1,200 worth of pears from these two acres. Instead of hunting a market for his pears, buyers engage his whole crop, because the fruit is larger and handsomer than that grown in a haphazard way.

* * *

In locating several years ago on a farm partly planted to fruit, I was aggravated by some mistakes in planting which the former proprietor made, and some of which I am reminded of constantly. The one is that the trees are planted in such fearfully crooked rows. This should not be. It is hard to work among them without skinning the trees with the harrow, and another thing is the ignorance or poor judgment in planting the different kinds and varieties. There are the vigorous, upright-growing Niagara plums, now good-sized trees, with here and there a Lombard or Damsou, which are slow growers, and will never attain near the size of the Niagaras.

Besides the symmetry of an even growth, it is more convenient to have each variety by itself, and avoid the necessity of moving about from place to place in picking. Besides, the poorer growers are



CURRANT-BORER.

A, winged moth; B, grown caterpillar; C, pupa; D, stem split open to show caterpillar inside and an empty pupa-skin above.

rather at a disadvantage in growth at the side of the stronger growers, and will never do so well as they would if planted by themselves.

* * *

Another mistake made too often is worthy of more than a passing notice. It is in planting the common "wild" sour cherry. There can be no possible excuse for this, except the first cost of the trees, or the fact that the "sprouts" can usually be dug up in a fence-corner and planted, while nursery-grown trees of some better variety are not at hand when wanted.

At the present low prices of trees this first cost is not much of a consideration, and there are such decided advantages in planting better varieties that I would rather plant them even if the trees were to cost me a dollar apiece. These wild sour cherries have a propensity for sprouting from the root that it is almost impossible to keep them down when once they are started. Then they are so subject to black-knot that it takes a constant watch to keep that in check. The fruit of Early Richmond is larger, earlier and of better quality, and the trees earlier and better bearers and the fruit easier to pick, and they never sprout from the root. Then the Montmorency for a later cherry just fills the bill. With these excellent cherries we have no use for the "wild" ones.

C. WECKESSER.

ORCHARD AND SMALL FRUITS.

CONDUCTED BY SAMUEL B. GREEN.

Gooseberry-mildew.—W. F. D. L., Reno City, Nevada. The mold on your English gooseberries is caused by a surface-feeding mold that attacks them very generally in this country. I have failed to grow them successfully on this account without more trouble and expense for spraying than I like to put on them, but they can be grown by selecting a good location, and spraying the

foliage at fruit at least once in two weeks with sulphid of potash (liver of sulphur), at the rate of one ounce to two gallons of water. Liver of sulphur costs about twenty-five cents a pound. I think that Industry and Whitesmith are freest of English varieties, from this trouble; but all gooseberries are liable to injury from it some seasons, and even native sorts are often greatly improved by being sprayed with this material.

Pear and Apple Blight.—I. S., Bushnell, Mo. The Idaho pear probably is reasonably free from blight, but it is a new variety, and has not been sufficiently tested for any general statement regarding its powers to resist disease, but it is very vigorous. While we hear more or less about blight-proof pears, yet I do not know of any variety that is really blight-proof. Pears and apples probably blight most in wet summer weather, because they are growing most rapidly at that time, and the tissue is more loose and open than when they are growing slowly. Then, too, a moist, warm atmosphere is more favorable to the growth of the parasite that causes the disease than dry weather.

Curly-leaf.—B. A. G., Swan Creek, Ill. Your peach-trees are infested with what is known as curly-leaf (Taphrina deformans), which is closely allied to the disease that causes plum bladders, or pockets, in plums. The full life history of this parasite is not known, but it probably lives over winter in the twigs of the tree. The remedy is to remove and burn the infested branches, cutting a foot below where the disease appears. In your section the disease will probably have run its course by the middle of June, and then the tree will begin to send out new shoots below where it has been injured.

Currant-borer.—W. W., Sheboygan, Wis. Your currants are infested by the currant-borer, which is very abundant in your section. The borers are the larvae of a wasp-like moth, which lays its eggs in early summer on the caues. These soon hatch, and the larvae eat their way to the pith, where they remain until the following season.

REMEDY:—On account of this borer wintering over in the stems, it may be destroyed by cutting out and burning the infested stems in winter or early spring. A little practice will enable one to detect the infested caues at a glance, and their removal will not generally require more pruning than the currants really need.

Plant-lice.—J. H. M., Bowling Green, O. Your currant-leaves are infested with the common currant-lice, and the plums with the plum-lice. The remedy is tobacco-water the color of strong tea, or kerosene emulsion, as often recommended in FARM AND FIRESIDE. If not very abundant, hand-picking of the leaves is the best remedy. The trouble about killing them is that the lice are almost entirely on the under side of the leaves, and so protected that they are difficult to reach with spray. They seldom do very serious injury.

Ash-tree Borer.—J. V. S., Hot Springs, S. D. Your ash-trees are infested with the ash-tree borer, which in the mature state resembles a wasp. There is no remedy, and planters in your section should go slow about planting the ash on account of its being a doomed tree wherever it is planted in large quantities for shade or ornament. Better commence to replace your ash-trees with box-elder or white elm or white willow, so they can be coming on while the ash is dying out.

Spur-blight.—W. W., Loreda, Mo. Your apple-trees are affected with what is often called fruit-spur blight. This is occasionally abundant, and causes much damage. It is probably a form of the common "fire-blight," which, as has been often stated in FARM AND FIRESIDE, is caused by a minute vegetable parasite that lives in the tissues of the tree. There is no known remedy, and the best treatment consists in cutting off and burning the affected portions.

Worms in Ground-cherries.—W. A. W., Silver City, Iowa. It was probably a tortrix that infested your ground-cherries. A similar species is this year abundant in the twigs of roses and box-elder. The only remedy consists in destroying the infested fruit. However, this insect is seldom very injurious more than one season before its parasites become so numerous to nearly kill it out, and the chances are that you will not be greatly troubled with it this year.

Galls on Grape-vines.—J. P. S., Ironton, Ohio. The small gall clusters on your grape-vines were caused by a small gall-fly that somewhat resembles a mosquito. It is not new, although not met frequently, and it probably has never done any serious damage. The galls form around the eggs which are laid in the leaf.

Nervous Weak Tired Thousands are in this condition.

They are despondent and gloomy, cannot sleep, have no appetite, no energy, no ambition. Hood's Sarsaparilla soon brings helps to such people. It gives them pure, rich blood, cures nervousness, creates an appetite, tones and strengthens the stomach and imparts new life and increased vigor to all the organs of the body.

Hood's Sarsaparilla

Is the Best—In fact the One True Blood Purifier. Sold by all druggists. \$1; six for \$5.

Hood's Pills cure Liver Ills; easy to take, easy to operate. 25c.

Our Farm.

THE IMPORTANCE OF WATER IN CROP GROWTH.

WATER is the most important factor in crop growth. Practical farmers are coming to realize the fact more and more. Evidence of the increasing knowledge along this line is shown by the widespread interest that is being taken in irrigation, not only over the arid regions of the West, but also in the humid climate of our own and neighboring states. More attention has also been given to improved methods of plowing and cultivation with a view to retaining moisture in the soil.

Growing plants contain a very large proportion of water, hence when dried they lose considerably in weight. The average number of pounds of water in a ton of green substance for each of the following crops is as follows:

Timothy	1,500 pounds
Red clover	1,400 pounds
Corn fodder	1,500 pounds
Meadow-grass	1,300 pounds
Melons	1,800 pounds
Turnips	1,800 pounds

When we market a ton of turnips we are selling 1,800 pounds of water and 200 pounds of turnips. It pays to sell green crops.

Dry fodder does not contain nearly so much water.

One ton of timothy hay.....	260 lbs of water
One ton of corn fodder.....	800 lbs of water
One ton of wheat-straw.....	180 lbs of water
One ton of oat-straw.....	180 lbs of water

It is impossible at ordinary temperature to dry out all the water held by plants. This can be removed only by exposure at high temperatures.

All of our agricultural plants obtain their water exclusively through the roots. Leaves and stems do not absorb water to any appreciable extent. A well-developed root system is of great importance to plants. Roots are the plants' water-pumps.

On the other hand, there may be too much moisture in the soil. The plant depends largely for its ability to do work on four factors—heat, light, food and water. If these are furnished in the right amounts at the right time the greatest growth occurs; if, however, all or any one of these factors are deficient or in excess, growth is checked. Too much water in the soil fills the air spaces, or openings, between the soil grains, and drives out the air. When this occurs, roots of our crops cannot obtain air and are drowned, just as we would be if we were placed under water. If the soil is three fourths saturated it is not well adapted to crop growth. Most plants do best when the water in the soil is from forty to sixty per cent of water-holding capacity. Wheat, for example, is found to do best in a soil containing about fifteen pounds of water for each one hundred pounds of the wet soil.

Plants take water from the soil by means of minute root hairs which branch out from the main roots, and thread their way through the soil, pushing around and between soil grains in all directions. Water taken up by the roots passes upward into the stem and foliage of the plant. It will be remembered that the mineral food and nitrogen of plants are taken from the soil, and these can be taken only through the medium of water. The water as it is absorbed by roots is not pure, but contains in solution small quantities of all the soluble soil compounds. Some of these compounds are absolutely essential to the growth of plants. A soil may contain abundance of plant-food, but if there is not enough moisture present to dissolve this food and carry it into the plant tissues, the soil is a barren waste. This is precisely the condition over much of the drought-stricken area of the West. The barrenness of the soil is not due to scarcity of plant-food. Plant-food is present in abundance, but there is not enough moisture present to dissolve it and carry it to the plant roots. Crops in this soil are in the same condition as the sailor in mid-ocean, who, in his distress, cried, "Water! water! all around, but not one drop to drink." Crops in the arid region have food! food! all around, but not one bite to eat.

How much water does a crop use? How many pounds of water does a crop take from the soil? King, who has made extensive experiments in this line, finds that for each pound of dry matter the following

amounts of water are lost by evaporation from plants and soil:

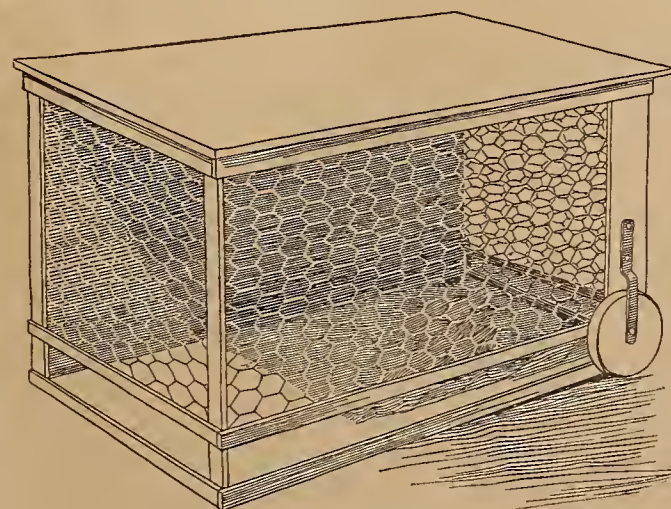
Dent-corn used 309.8 lbs. or 2.64 inches, of rainfall to the acre for one ton of dry crop.
Flint-corn used 233.9 lbs. or 2.14 inches, of rainfall to the acre for one ton of dry crop.
Red clover used 452.8 lbs. or 4.03 inches, of rainfall to the acre for one ton of dry crop.
Oats used 522.4 lbs. or 4.76 inches, of rainfall to the acre for one ton of dry crop.

Corn has been known to increase, says Hunt, at the rate of 1,300 pounds of dry matter an acre a week. This would require the evaporation of 200 tons of water. Weeds growing on the same land would also pump water out of the soil, and rob the corn to the extent of their evaporation.

"At the Illinois experiment station eighteen plots grew the same varieties of corn in 1887 and in 1888. Both seasons the seed, the preparation of the seed-bed, the planting and the cultivation were as near alike as human ingenuity could devise. The first season the yield was thirty-two bushels an acre; the second season the yield was ninety-four bushels an acre. The rainfall during the five growing months in 1887 was 13.4 inches, while in 1888 it was 23.0 inches."

The fact that growing crops take large amounts of water from the soil was shown in an experiment with rye on the Ohio State University farm in the season of 1895. A field of uniform fertility was selected. Rye was grown on a portion of this field, while the other portion remained fallow. Several days before the rye was harvested the fallow portion was plowed and prepared for corn. After the rye was removed that portion of the field was plowed and prepared for corn, then the whole field was planted. At harvest-time a great difference was observed between the corn on the rye ground and on the fallow ground. The stalks of corn on the rye ground were smaller and at least one third shorter than the others. The yield of ear-corn for ten shocks, each ten hills square, on the rye ground was 690 pounds, while ten shocks of the same size on the other portion of the field yielded 2,125 pounds, or more than three times as much. The rye ground yielded 1,000 pounds of straw, while the other ground yielded 2,435 pounds, or more than twice as much. To what shall we attribute this great difference in yield? Can it be possible that the rye crop exhausted the soil so that it could not grow a fair crop of corn? I think we agree that this could not be the reason. Let us see how much water was taken from the soil by the growing rye. There were harvested from fifteen acres thirty-three tons of green rye, or six and one half tons of dry matter. As it requires four hundred pounds of water to produce one pound of dry matter we see that 352,000 pounds of water, or 1,200 barrels, were taken from each acre of ground during the growth of the crop. While we cannot say certainly that the lessened yield on the rye ground was due to scarcity of water, we know that all the facts at hand indicate this to be the case.

Last May I determined the amount of moisture in the surface foot of soil on rye ground and on adjoining fallow ground. The soil which had produced the rye crop contained 18.5 per cent of water, while the adjoining fallow ground contained 23.2 per cent of water, showing that the growing rye pumped out 4.7 per cent of



water; or, in other words, left the soil drier than the fallow ground to the extent of about sixty tons to the acre.

Crops like wheat and oats that make their growth early in the season while the soil is moist are not so likely to be injured by drought.

There are very few countries where the rainfall is distributed sufficiently in time and amount to produce the greatest crop that the fertility of the soil will bear; this

being true, those soils which will catch and retain the largest quantities of moisture in a condition which shall allow crops to make the best use of it are the most productive. The relation of soils to moisture is an important factor in determining land values.

In a dry time or in places where droughts occur during parts of the year we should carefully guard the supply of moisture in our soils to prevent waste either by excessive evaporation or from flowing off over the surface or by percolation through the soil beyond the reach of roots.

How may we control moisture? Can we save soil moisture by practical methods of cultivation? When water falls upon the soil a portion of it runs off over the surface, another portion is absorbed. The water which enters the soil may pass on through and find its way into streams, or it may be evaporated into the air. As farmers we want our soil to catch and retain the greatest possible amount of the rainfall. Cultivated soil is loose, and will catch and hold more water than a compact soil. It acts as a sponge. This is another reason why cultivation saves moisture. A layer of straw spread over the soil would prevent its drying out. In this same way a layer of loose, cultivated soil need not be deep. Two inches is sufficient. In fact, if we cultivate deeper than that we seriously injure corn roots and lessen yield. How frequently should we cultivate? Often enough to keep weeds down and prevent the soil from baking.

Fall plowing retains moisture. The rough plowed ground collects and absorbs the winter snow and rain, and holds it for the summer crop.

Early spring plowing saves moisture. If land is allowed to remain unplowed it loses water rapidly. King, of Wisconsin, found that corn ground lost at the rate of 9.13 pounds of water a cubic foot a week more than adjacent plowed ground. We have all noticed the difference between the loose, moist, friable condition of the soil early in the spring, and the hard, dry, cloddy condition later. Early plowing may mean an extra disking or cultivation before the crop is planted, but this cost is insignificant compared with the gain in amount of moisture saved. Of course, in a wet season the saving of moisture is not so important.

Rolling the soil dries it, as a whole, but brings moisture from the deeper layers near to the surface.

The dry seasons of the past few years emphasize the importance of improved methods of cultivation with a view to saving soil moisture. The farmers of the far West are deeply interested in this question. Railroad companies are establishing experiment farms in western Kansas and Nebraska for the purpose of educating the farmers into methods of culture whereby the most economic use can be made of the scanty rainfall of the region. Their ultimate aim is financial gain from increased freight and passenger traffic.

W. D. GIBBS.

HOW TO BREAK UP SITTING HENS.

What poultry-keeper is not more or less pestered at this time of the year with broody hens? I think as long as we keep fowls we will have some trouble in this line, and if we cannot make profitable use of biddy's broodiness in each and every case, then we must devise some simple plan by which we may turn her mind, and at least her energies, again to more profitable business. I have kept so-called non-sitters, but I had the same trouble nevertheless. For a number of years I have used a light, portable cage, 3x5 feet, 2½ feet high, illustrated by accompanying drawing. Into this were placed all broody hens—not more than six at a time—and kept there for a few days. Five or six days would generally suffice to induce them to give up their notion. The cage is covered on three sides with netting. It is also provided with a roosting-pole, left out in the drawing. The three or four inch space between the two bottom slats is not covered with any netting, but through it the confined fowls may reach water and food placed outside.

As shown, one side of the cage is boarded up tight with thin lumber, to provide for protection against wind, rain and sun.

Now, every day this cage, with its occupants, should be moved a few steps to a new grass spot. To facilitate the work, two easily sawed out plank wheels may be bolted on close up to the corners at one end, thus the moving will be an easy task—sort of wheelbarrow fashion.

I find another use for such a cage when not in use for the above-described purpose. Little chicks can readily slip through between the two bottom slats. Thus the cage furnishes a feeding spot where the little things cannot be molested and robbed by grown fowls. This may sometimes be found an advantage.

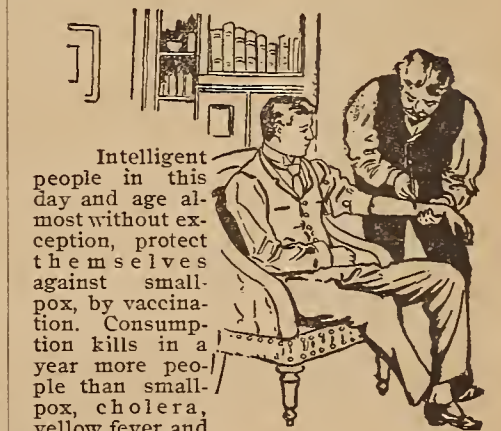
F. GREINER.

EXTRACTS FROM CORRESPONDENCE.

FROM KANSAS.—Osage county has several large streams crossing it. Its general surface is rolling, but it has high bluffs and beautiful rounded knolls. It has a large amount of native timber for lumber and fuel; it also ships fine walnut logs to Europe for veneering. It has an inexhaustible vein of coal, entering the northeast corner of the county and running out at the southwest corner. At the shafts in towns coal can be bought for eight cents a bushel of eighty pounds; at shafts and strippings in the country for from four to eight cents a bushel. Railroad facilities are excellent. If a man wishes to ship cattle to Kansas City, a car will cost him from \$18 to \$22, owing to size. Building stone is plentiful. Springs are quite numerous, including a few mineral springs. In 1895 Osage county was the third in the state in the amount of corn raised—over five million bushels—and last year it was about the seventh. It would be safe to say that there are not ten counties in the United States that outdo it in the number of cattle fed and fattened last winter. The educational advantages cannot be excelled in any state. I can stand on a bluff just east of my home and count ten school-houses and five churches within the radius of twelve miles, and the sixth church is behind a mound. Good improved farms can be bought for from \$14 to \$50 an acre; unimproved for from \$10 to \$20. Kansas City, ninety miles distant, is the best cattle market in the world, and has sent out this past year more feed and stock cattle than Chicago and Omaha combined. Osage county has advantages, such as climate, soil, locality, water, fuel, cheapness of fuel and land, schools, churches and good society, that are hard to duplicate.

N. R. S.

Olivet, Kan.



Intelligent people in this day and age almost without exception, protect themselves against small-pox, by vaccination. Consumption kills in a year more people than small-pox, cholera, yellow fever and all known plagues kill in fifty. Tens of thousands of intelligent people recognize that they are threatened by this deadly disease, but take no precautions against it.

Consumption approaches its victim step by step. First there is a little "out of sorts" feeling, the digestion isn't just right, the appetite falls off, the liver is inactive, the assimilation of the life-giving elements of the food is imperfect, the blood gets impure and the body is improperly nourished. These conditions get worse and worse. The heart through the arterial system is pumping thin, poisonous blood into every organ of the body. The organs that are inherently weakest break down first. Ordinarily the lungs. As the last straw that breaks the camel's back comes a cold, however slight. This, with the accompanying cough, completes the work and an invasion of the germs of consumption follows. Dr. Pierce's Golden Medical Discovery cures 98 per cent. of all cases of consumption. It corrects the conditions that lead up to it. It is the greatest blood-maker and flesh-builder known.

K. C. McLin, Esq., of Kempsville, Princess Anne Co., Va., writes: "When I commenced taking your 'Discovery' I was very low with a cough, and at times spit up much blood. I was not able to do the least work, but most of the time was in bed. I was all run-down, very weak, my head was dizzy, and I was extremely despondent. The first bottle I took did not seem to do me much good, but I had faith in it and continued using it until I had taken fifteen bottles, and now I do not look nor feel like the same man I was one year ago. People are astonished, and say, 'well, last year this time I would not have thought that you would be living now.' I can thankfully say I am entirely cured of a disease which, but for your wonderful 'Discovery,' would have resulted in my death."

Our Household.

WHEN BLOOM OF LILIES IS GONE.

There are days in each life when the pulse bounds with pleasure,
When love in its glory is gilding each treasure.
The roses and lilies are bursting with sweetness,
And whispering softly of summer's completeness.
But swiftly they fly, like the angel of dawn,
And the fragrance and bloom of the lilies are gone.

There are doors in each heart that are bolted forever,
And no one may force or their secrets discover.
There are graves in each breast, where white lilies are bending,
And sighing of peace in a future unending.
How hopeless the soul, if the blush of life's dawn
Fades away when the bloom of the lilies is gone.

There are friends we have lost, and their names are ne'er spoken;
Though living, we walk through a silence unbroken.
There are troubles in life worse than death's heavy finger,
And joys slip away, while the weary hours linger.

Let us gather some sweetness from each rosy dawn
To cheer when the bloom of the lilies is gone;
Let us cast away pride, and the passions that harden.
Like nettles that choke the fair flowers in yon garden.
Let us gather up clusters of kind words and wishes,
And beautiful deeds that are better than riches.
They will shine in the light of eternity's dawn.
When earth's withered roses and lilies are gone.
—Viola Van Order, in New Orleans Picayune.

HOME TOPICS.

CLEANING POULTRY.—Poultry should be drawn as soon as it is picked, or the portions of it that are next the entrails will acquire an unpleasant taste. Some people object to washing poultry at all, claiming that to wipe them with a dry cloth is sufficient, but any one who knows the habits of poultry would doubt this. They need to be thoroughly washed, using a small cloth, and not leaving them in the water longer than is necessary; then wipe carefully with a dry cloth, and hang the fowl in a cool place until ready to cook it.

HOT-WEATHER HINTS.—Now that hot weather has come again we should carefully watch that no cesspools, outhouses or decaying matter of any kind become breeders of disease. In many houses the kitchen sink and drain are the avenue through which fever gains admittance to the family circle. Bits of food and grease from dish-water lodge in the pipe, and obstruct the passage of water. This deposit is kept constantly saturated, decomposition takes place, and poisonous gases are formed, which find easy access to the house. In the country, where we have a right to expect pure air, if anywhere, it frequently comes into our windows laden with pestilential odors from cesspool, barnyard or pig-pen, and it is to these agencies that zymotic diseases frequently owe their origin in a country neighborhood.

After making sure that our own premises are clean and pure, if a neighbor's proves odious, it is but right that we make complaint to them; and if the evil is not then rectified, appeal to the proper

family that the water in the well was discovered to be contaminated by a neighboring cesspool.

While the preserving and canning of fruit is going on, the tired housekeeper ought not to forget that her own health needs preserving, and one unfailing recipe for this is rest. Doubtless one reason of our becoming so tired out at this season is that we feel hurried all the time, one piece of work crowds another, and we are worried because we see so many things waiting to be done. I know that often the mind tires the body, and if I can keep from feeling hurried and worried I can work with less fatigue.

It is false economy to try to crowd two days' work into one; and although times are hard and money scarce, it is surely better economy to secure the help of a girl for a few weeks than to toil on, each day becoming more weary, until at last outraged nature rebels, and illness for weeks is the result.

The only safe rule in deciding this question of economy is that "the life is more than meat and the body more than raiment."
MAIDA MCL.

DOING NEIGHBORHOOD PLANNING.

There is usually in every neighborhood at least one, and seldom more than one, real "presiding genius," whose taste is infallible, and whose ability to both plan and execute is indisputable. From every side she is appealed to for information, and frequently she is asked to lend a helping hand in the making and making over of garments, from mother to daughter of the family, and from husbands to sons also.

This ability upon the part of a farm wife may be made to do excellent service, and he made to bring her an income at the same time. It is too often the case, though, that one's neighbors come to expect of the ingenious woman her aid and her time without compensating her in the least. They come to expect her to give, and not to expect to receive. And her time and strength are too often utilized by her neighbors, they feeling that in praising her exceptional taste she should feel amply repaid, and be glad to render service at any and all times.

A woman thus endowed should make charge for services rendered. She does herself and her family an injustice when she expends her own needed time and strength without receiving either help or money in return. One's neighbors will respect her the more, and at least none the less, if she puts upon her time a monied valuation, and insists that for services rendered she receive its equivalent in some form. It is only justice, and it opens up the way for one to make the income that so many women are seeking.

In a certain locality in the far West lives one of the world's brightest women, whose time was encroached upon by neighbors, who, realizing her especial aptitude for "making something out of nothing," besiege her upon all sides.

For years she was indiscriminately called upon by every one about her, and

sure before making the offer that she would not allow them to do it.

It was becoming burdensome in the extreme. Mrs. Helpful was not strong, doctor's bills were of frequent occurrence, and times were very close with them. At last a friend from the East, in making a visit to the western home of Mrs. Helpful, noting how she was virtually imposed upon by every one because of her kindness of heart and her dread of offending by making mention of the fact that compensation would be very gladly accepted in return for work done for these frequent callers, who called with selfish motives in heart, and well knowing they would gain their end, insisted that no more of such work should be done unless she should make up her mind to ask and insist upon being paid for it.

"You are working injustice to your own household," said Mrs. Helpful's friend and guest. "You have no right to do it." And looking the situation over just as it was, she concluded to begin making charges for her time and her labor.

It did not please very well at first. This departure from old ways of securing the advice and help of a really competent dressmaker, hat-trimmer, and a planner of ways and means to an extent that looked wondrous to the more staid and impractical of her acquaintances, had been un-



looked for, and was not kindly received until they had time to become accustomed to the new departure. But people stopped coming to her with unnecessary work, thus relieving her to a very great extent of both the work and the unwelcome society of a great many who had imposed upon her. Those things that they could not do, and must have done, and that they felt they could not pay the prices for that were asked by the village dressmakers and milliners, they eventually brought to Mrs. Helpful, and brought with them at the same time the money to pay for. She charged them but half, or little more than half, the prices asked by women in the village who were no more competent or

This plan might readily be adopted by one woman in every country neighborhood, if she be in possession of the talent necessary to make of it a success, turning out work that is satisfactory to her acquaintances. Mrs. Helpful used to say, laughingly, that she had a perfect mania for making over old clothes, and for "makin' somethin' outen nothin'." She could do it if ever a woman could. She was indeed a genius and capable, intelligent, well educated and refined. But circumstances of an adverse nature had placed her in "unpleasant places," and among a people to an extent that were not congenial. But she was not one to repine and sit idly down complaining at her "fate." She knew no bounds to her ambition, and through it she achieved success.
ELLA HOUGHTON.

A SUMMER TOILET.

This is of any of the soft silks or lawns. The waist is quite novel. The revers, vest and collar should be of white, either silk or pique.

In any of the light wool etamines this dress would be quite as cool as lawn. Ribbons and lace enter into the combination of every toilet, and must be used lavishly.

Two and one half yards of lace for the neck and sleeves are none too much. The wrinkled sleeve must be made on a thin lining.

TATTING.

Tatting was very near becoming one of the lost arts when it was suddenly revived, and now it bids fair to be used once more for adorning the numberless articles which are wont to be finished with dainty lace.

If well made, of good quality, of white sewing-cotton, it is very durable and withstands the ravages of the laundress longer than woven laces.

As the present-day girl is satisfied with nothing in the way of work-basket tools unless they are silver, the tatting-shuttle of to-day has assumed an elegance unheard of in our mothers' time, when they were perfectly satisfied with one made of rubber, or at best ivory. They can be purchased at very reasonable prices.

It is very difficult to learn except from another person, and then needs only patience. If the first two patterns are mastered, the others are comparatively easy. To those who suffer from perspiration upon the hands I would suggest that they keep a small flannel starch-bag which to dust the hands, as it is important to keep the thread so it will pull up neatly. For a beginner No. 10 thread is the best to learn with, as the picots can be better distinguished.

Pattern No. 2 is made with the shuttle, and a spool of thread from which the loop around the hand is made, working upon it with the shuttle-thread. Always hold the thread loosely in the hand. When a good length has been made, roll it up carefully, and pin a piece of tissue-paper around it to keep it clean. Its beauty depends upon its absolute cleanliness when finished.

The picot-edged patterns make very pretty edges for fine handkerchiefs, in which case No. 60 or No. 70 thread should be used, and a larger number of stitches. A young lady friend of mine makes a handkerchief with tatting edge for which she asks one dollar. She always has six or more orders ahead.

Tatting is a nice finish for toilet articles and fine doilies, lending itself particularly to the adornment of an infant's wardrobe.

Learn carefully Nos. 1 and 2, as these are the basis of all the other patterns.

No. 2 is called double thread. The top



No. 1



No. 2



HALF WHEEL.



FEATHER EDGE.



CLOVER-LEAF.

authorities. We cannot afford to run the risk of sickness or death entering our homes for fear of offending a neighbor by complaints. It is of the utmost importance to be sure that the air we breathe and the water we drink are pure. Not long since I read of a family that moved to the country from a large city that they might have the benefit of pure air. One after another sickened, and it was only after the death of two members of the

for miles around, to cut, to dye, to plan and to make the various garments wanted. A day seldom passed that some one did not come for information and help, and there they remained to dinner, and usually to "tea" also, while waiting for Mrs. Helpful to complete the work that they declared no one could do "so beautifully" as herself. An occasional one offered in return to do a washing for Mrs. Helpful "some day." But they were very

proficient than herself. She was soon earning a neat little sum of money every year. It was but a little time until women of limited means from the village were also seeking her services. For her lesser prices for the same work were gladly accepted, and they were very glad to avail themselves of her help in making, planning, cutting and fitting, and even in dyeing goods for the purpose of pressing them into further service.

part is made by throwing around the hand a thread from a spool, and working on it with the thread from the shuttle.

FEATHER EDGE.—This is first three loops made three double stitches and a picot. 3 d s, 1 picot, 3 d s, 1 picot, 3 d s, and close up.

The large loop is 3 d s and 1 picot, 2 d s, with 1 picot between until you make 10 picots; then 3 d s, and close up.

THE HALF WHEEL is made on one side

of a loop composed of 4 d s, 1 picot, 4 d s, 1 picot, 2 d s, 1 picot, until five picots are made, then 2 d s, and close up. The lower loops are 5 d s, 1 picot, 5 d s, 1 picot, 5 d s, 1 picot, 5 d s; close up. Join at the side of each one, and also to the first loop. When each wheel is finished, carry the thread over the last loop, and join it as you go along. *

THE CLOVER-LEAF is tied closely after each three loops are made. Be careful to leave the connecting thread loose enough to carry over.

LOUISE LONG CHRISTIE.

CONSIDER THE BEE.

Will Shakspeare has painted an idyllic little picture in King Henry V. of the working of the honey-bees:

Creatures that by a rule in nature teach
The act of order to a peopled kingdom.

They have a king, he says, and officers of state, magistrates, merchants and soldiers who "boot upon the summer's velvet buds," and with their pillage merrily march home to the royal tent of their emperor:

Who, busied in his majesty, surveys
The singing masons building roofs of gold,
The civil citizens kneading up the honey;
The poor mechanic porters crowding in
Their weary burdens at his gate;
The sad-eyed justice with his surly hum,
Delivering o'er to executors pale
The lazy, yawning drone.

Will Shakspeare wrote from his own observations, and he was all right except that these soldiers, merchants, masons and magistrates of the hive are all females. The only males in the hive are the "lazy, yawning drones." Handsome, portly fellows, with loud-buzzing voices, they have no stings, no wax-glands, no pollen-baskets, and would starve to death when surrounded with honey if the worker females did not feed them. These working female bees do not consider the male bee who loaf around without visible means of support as any object of love or admiration, and in November, when their usefulness is questionable, they put him to death. The male larva and male eggs are also exterminated at the same time.

There is no difference in the egg producing a queen bee and a working bee except that the queen bee is put into a larger cell and fed on rich food called royal jelly. She is a long, slender creature with a curved sting, which she rarely uses except in mortal combat with a rival queen. It takes ten or twelve days to produce a queen from a worker's larva. Two or three days later, if the sun shines, she goes out on her marriage flight. If she does not secure a mate on the first day, she goes again and again. If she has no luck after fifteen days, she remains a virgin queen.

The work of the queen is to lay eggs, and she may produce three thousand in a day, which would average over a million in her lifetime. Each egg is one sixteenth of an inch in length, and if all the

from three to five years, though a worthless queen is usually put to death.

The workers are the most numerous class in the colony, a good hive numbering from fifteen to forty thousand. The worker larvae are laid in small cells, fed grudgingly, and the first week of their young bee life they are called imagoes.

These imagoes do not go out, but are trained to do general housework at home. They build the comb, feed the queen, the larvae and drones, cap the cells and ventilate the hive. After a week's time they come to the age when they can fly away after honey and pollen and wax, and they find it ever so much more fun rolling over clover-tops drinking in nectar than toiling away feeding lazy drones in the hive.

The mechanism of the worker-bee is very interesting, with her pollen-bag, honey-stomach, wax-plates and curious little hairs for gathering pollen. She is a very neat, orderly creature, and carries with her, on her legs, not only the stiff, horny combs used to gather pollen into her pollen-basket, but fine bristle combs to brush any grains of pollen out of her eyebrows that may obscure her vision,

thread, and draw it through the two remaining.

ROSES.—First row—Make ch of 6 st; join.

Second row—Ch 5, 1 tr in circle of 6, ch 2 and 4 more tr with a ch of 2 between each t c; join. This makes 6 t c and 6 spaces around circle.

Third row—Put 1 d c, 6 t c and 1 d c in each space for first row of leaves.

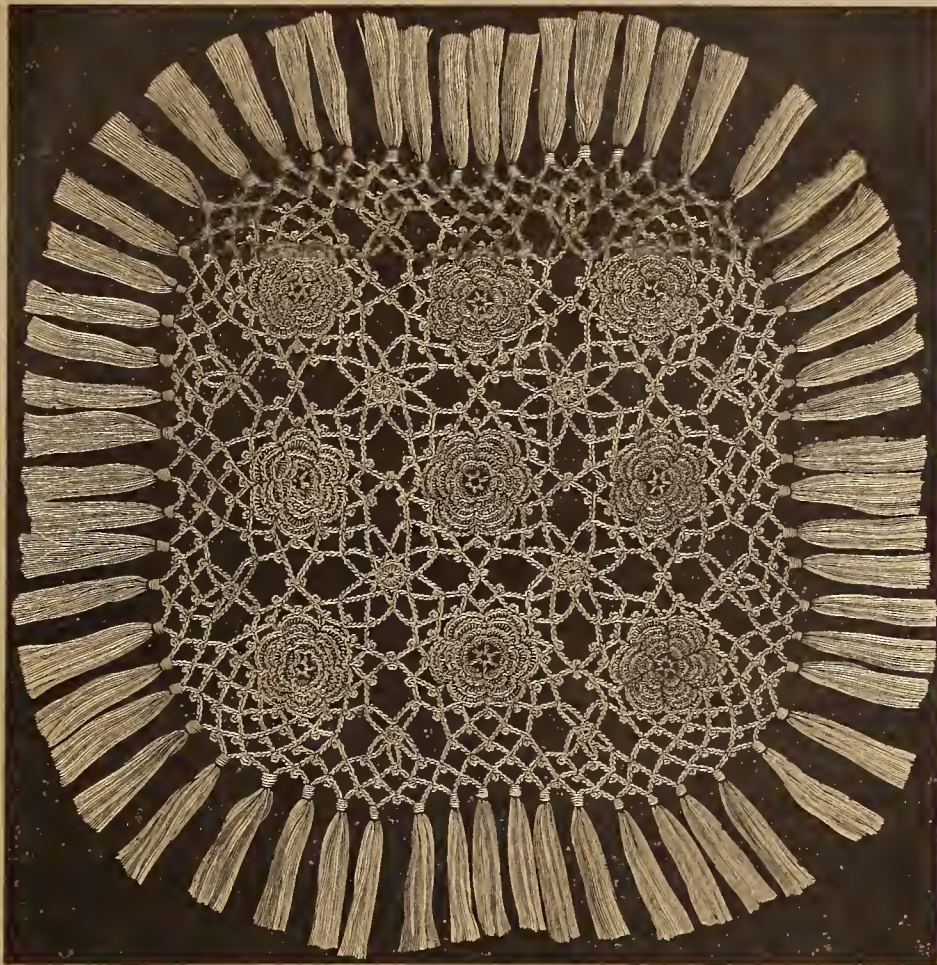
Fourth row—Make a ch of 4, and join behind the first leaf with a s c. Continue around rose in this way.

Fifth row—Put 1 d c, 8 t c and 1 d c in each chain behind the first row of leaves.

Sixth row—Increase the ch 1 st behind each leaf for every row, and put 2 more st in each scallop until you reach the last row of the thick part of the rose, which has 1 d c, 15 t c and 1 d c. This gives you a rose with five rows of leaves.

LACE-WORK AROUND ROSE.—First row—Make ch 7, join on the top of leaf with a s c; make ch 4, join in same st by a s t; chain of 7 join in the bottom of leaf with a t c, chain of 4 join in same st with s c. Continue around rose.

Second row—Crochet to top of loop 7,



and also to clean and burnish up her wings. The worker-bee never lives to old age, and if she comes out in the busy honey-making season, she may die of overwork in a month.

The busy worker-bees really mother the hive, for they gather the food and chew the wax and knead the pollen into bread, and feed all the baby bees as well as the queen bee and the drones. With bee-glue, which they gather carefully from hickory and horse-chestnut buds, they fasten up every crevice. They plan the cells with mathematical precision, devise ways and means for surmounting all kinds of difficulties with inexhaustible patience, besides storing up tons of honey going to waste in the flowers. Every woman suffragist should wear a bee in her bonnet.

A farmer who planted beehives in his front dooryard pointed to a fine hip-roofed barn on his premises the other day, saying:

"My bees built that barn. They netted me eleven hundred dollars in one year."

That farmer thinks the bee worthy of consideration.

FRANCES BENNETT CALLAWAY.

ROSE TIDY.

TERMS IN CROCHET.—Ch, chain; s c, single crochet. Having a stitch on the needle, put the needle through the work, draw the thread through the work and the stitch on the needle. D c, double crochet. Having the stitch on the needle, put the needle through the work, and draw a stitch through, making two on the needle. Take up the thread again, and draw it through both these stitches. T c, treble crochet. Having a stitch on the needle, take up the thread as if for a stitch, put the needle through the work, and draw the thread through, making three on the needle. Take up the thread, and draw through two, then take up the

make ch of 8, join in next loop of 7, ch 4, join with s c in same st; chain 8, and continue as described around rose. Break off thread. Make 9 roses as described above. Every third loop of rose is crocheted together with a ch of 4 caught on each side of the single st, which joins the roses.

CENTER BETWEEN ROSES.—Ch 6, join; put 17 t c in this circle.

Third row—Ch 5, skip 2 st, confine with s c; continue around, making 8 loops in all.

Fourth row—Crochet to top of one loop; make ch of 6, and put in the top of one of the loops around rose; ch 4, and confine in same st with s c; ch 6, join in top of the loop of 5 chains around the center. Continue in this way until each little loop of 5 is attached to a loop around the roses.

Between each rose on the outside of tidy is a little place that must be filled with a little crochet made in this way:

First row—Ch 4; join.

Second row—Put 11 d c in this circle.

Third row—Make ch 11, skip 1 st, and join with s c; repeat this 3 times, then make ch 6, and join in loop of tidy next to the one that joins the roses together; make ch 4, confine in same st with a s c; make ch 6, and attach to little wheel, skipping 1 st from where you left the little wheel. Repeat this last direction, but attach the ch 6 to the loop on the other rose. You will have to make 8 little wheels, and attach them as described for outside edge.

LACE-WORK AROUND TIDY.—First row—Fasten thread to the top of one of the loops around rose; make ch 8, fasten in the top of next loop; ch 4, confine in same st with a s c; continue in this way, taking up the ch of 11 on little wheels just as you do the loops around the roses.

Second row—Ch 8, fasten in top of next loop; ch 4, confine in same st with st; continue around tidy.

Fringe the tidy with a fringe from two and one half to three inches deep.

You can make these tidies of silk or colored spools of cotton. I prefer the delicate colors of cotton, as the tidies stay nice longer, and the cotton does not ruff up as the silk does. You will have to have three spools of crochet-cotton to make a tidy the size of the one described.

PATTIE HANGER.

A HANDY IRONING-BOARD.

In reply to a number of inquiries we illustrate a handy ironing-board. Fig. 3 shows the ironing-board closed, and Fig. 4 open.

AN APPEAL TO WOMEN.

Do you realize that not less than ten million birds are killed every year to stock the millinery-stores of civilized Europe and America, that you may decorate your hat or bonnet with their feathers?

Do you realize that for every murdered bird there are left at least two young, helpless, starving nestlings to die crying piteously and in vain for food?

Do you realize that insects multiply prodigiously—many at the ratio of one to one hundred thousand or more every year—that if not checked, vegetation would be ruined; that the cutworms alone, to say nothing of the gipsy-moth, are destroying whole crops, and that those ten million birds would have eaten and fed to their young not less than 1,000,000,000,000 insect pests every year? Yet the birds were killed that you might wear their feathers, and sometimes their whole bodies, cured with arsenic, on your bonnets! Millions of sweet notes hushed, and trillions of insects propagated to annoy farmers, horses and cattle! For what? A cruel and wicked fashion's whim.

Do you realize that no musical instrument ever invented can begin to equal the melody of our native warblers, and that within the last ten years 100,000,000 of these sweet songsters have been killed for you? Are you so trivial and cruel as to kill a song-bird for the sake of wearing its feathers?

Mother-heart, do you realize that whole species of plumage-birds have been exterminated, that their bleeding bodies decay in heaps on the coast of Florida, Louisiana and California, and that every egret plume that you wear represents a murdered heron, and is an incentive to your boy or somebody else's boy to cruelty and brutality?

"What does it cost, this garniture of death?
It costs the life which God alone can give;
It costs dull silence where was music's breath;

It costs dead joy that foolish pride may live.

Ah! life and joy and song, depend upon it,
Are costly trimming for a woman's bonnet."

Sisters, we have lace, ribbon, silk, satin, velvet and straw; we have silver, gold, steel, glass and jet; we have beads, brass, tinsel and bronze; we have artificial flowers in endless variety—bud, blossom, leaf, spray and fruit; will you not be satisfied

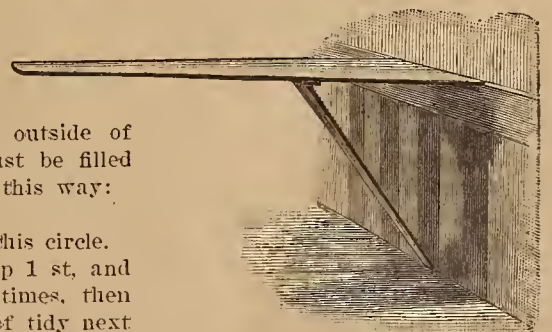


FIG. 4.

with these for ornaments, and resolve from this time to wear nothing on your hat which has cost the life of one of the daintiest, cheeriest, sweetest, most beautiful and most melodious of God's creatures?—Boston Transcript.

About six years ago my sister contracted a severe cold. She continued to grow worse, and the doctors said she could not recover. She tried Jayne's Expectorant, and kept on with the medicine until she was entirely well.—L. W. MILLER, Dexter, Texas, Oct. 21, 1895.

For the Liver, use Jayne's Painless Sanative Pills.

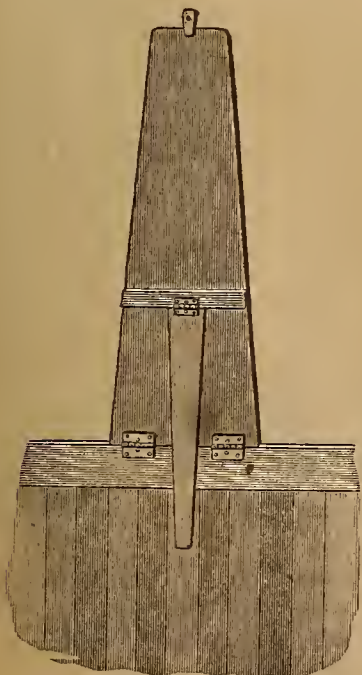


FIG. 3.

eggs a queen bee produces were to be laid end to end they would extend over a mile. From this it will appear that the queen bee is a very busy person. The queen usually begins work very early in spring with unimpregnated eggs, which produce drones. When the drone-brood is well advanced, impregnated eggs bring forth queens and workers. A queen may live

Our Household.

WHEN IS A WOMAN OLD?

This query on my mirror hung:
"When is a woman old?"
It clings to me and long has clung;
The answer must be told.

Ah! some are old before half way,
And some are never old;
For these but laugh life's cares away,
While those both fret and scold.

And yet it is no easy task,
However well controlled,
To answer one if she should ask,
"When is a woman old?"

The graceful ones are still young;
And those alone are old
Who try to make themselves look young
When age has taken hold.

The oldest ones of all the old
Are those who would look young.
For they will always fret and scold
When age's sign is hung.

The old in years who live among
Those younger in their hearts
Will find themselves remaining young
Long after youth departs.

As long as women cling to youth,
And disregard their age,
They never could be old, forsooth,
Their youth fills up the age.

Yes, some are old before their time—
Old age usurps their youth—
And some are young beyond their prime
Unless they hide the truth.
—Washington Post.

AN OIL OR GASOLINE STOVE.

SOME one says these articles and slow starvation go hand in hand, but any one who has tried this way of living through one summer will be loath to give it up and return to the terrors of the coal-bucket.

Experience in this as in everything else is all that is needed to give one the dexterity and deftness of handling which, after all, robs cooking of half its terrors.

The experience at cooking-school which a girl gets under the tutelage of a professor helps to steer her clear of many of the uncomfortable blunders she would make in her home trying to "go it blind."

In the confines of small apartments, which must answer for parlor, studio, bedroom, dining-room and kitchen, it takes considerable art to dispose of culinary articles and smells and waste so as to respect the dignity of the other apartments, and preserve an amount of grace necessary to meet your lady caller who has a whole house at her command and a retinue of servants to do her will.

It may be possible for you to be a lady in your own parlor or a good cook in your own kitchen, but it sometimes approaches the impossible to combine them both in one person and do equal justice to each one. When busy at the kitchen end one can really be forgiven for drawing down the blinds at the other end of the house, and giving a decidedly "not-at-home" look to the house. And when dressed for the parlor end, it is difficult to be called back to the cooking-stove by duties that always assert themselves at meal-time.

Preparation beforehand may insure a cold supper, but this is not always appetizing, and even then entails an amount of preparation almost destructible to any toilet, or else calling for an amount of extra work which to keep up day after day is certainly very fatiguing.

The present-day woman is not as much of a stay-at-home as those of the past, unless she decides to be like the boy on the burning deck, and stick to her self-imposed task, no matter what happens.

Certain it is that even if a meal can be prepared in a perfectly ladylike manner, the cleaning up of the utensils used is quite another matter. They can be left for next morning, if you can brave the comments of your next-door neighbor, or if you have enough dishes and utensils to do for two meals.

By using only fruit, rolls and coffee or tea or milk for breakfast, that meal can readily be disposed of; but dinner and lunch must be something more substantial.

All sorts of palatable dishes can be prepared for the six-o'clock meal. Many canned dainties can be used; and if one chooses, the chief work need be only about the one main meal of the day, be that at noon or night.

If the family is small, it is the best economy to get the heartiest meal out of the house, either at some good restaurant or a boarding-house. It would also be a diversion, and relieve the monotony very much. But where there are children it is scarcely to be thought of. With the aid of a chafing-dish and lamp through the summer, however, a woman's work could be very much lightened in every way, if she could make up her mind to entail her bill of fare in a way to save herself drudgery. With a large family there seems no way to save work unless all are helpers.

BELLE KING.

FRUIT DESSERTS—RASPBERRIES.

- 1 Raspberries (plain).
- 2 Raspberry Gelatin.
- 3 Raspberry Pie.
- 4 Raspberry Shortcake.
- 5 Raspberry Float.
- 6 Raspberry Pudding.
- 7 Iced Raspberries.

Carefully pick over your berries, freeing them from all undesirable matter, and if necessary wash them lightly in clear cold water with the hands. Pour the water off, and drain well.

Place in the dessert-dish in which you intend to serve them, first a layer of berries and then a slight sprinkling of powdered sugar, and so on until the dish is full. Raspberries, unlike strawberries and blackberries, which contain a certain amount of acid, are quite sweet of themselves, and if too much sugar is added are apt to become insipid and lose their own delicious flavor.

Raspberries served with cream, either plain or whipped, sweetened and flavored, are very palatable.

RASPBERRY GELATIN.—This is a very cooling dessert and an ideal one for summer. Soak a package of gelatin in one pint of cold water one half hour, and add one and one half pints of hot water, and stir until the gelatin is dissolved; sweeten to taste, and flavor with lemon-juice also to taste. Now add about one quart of fresh raspberries carefully prepared for use; set the gelatin away in a refrigerator or other cool place to harden. This dessert should be prepared the day previous to serving, as it requires some little time to harden.

RASPBERRY PIE.—The crust for this pie is baked separately, the berries not being cooked at all. When two crusts are to be used, just before serving the pie fill the under baked crust with ripe, fresh raspberries (carefully cleansed), sprinkle slightly with powdered sugar, and add two tablespoonfuls of thick cream; then place on the top baked crust, and your pie is ready to serve. Or bake but one crust, after which fill same with berries, adding sugar and cream, and then a meringue (as for lemon pie), which, of course, requires a slight browning. Serve hot or cold.

RASPBERRY SHORTCAKE.—Sift together one quart of flour, one half teaspoonful of salt and two heaping teaspoonfuls of baking-powder; rub in well one and one half tablespoonfuls of butter or lard. Roll this crust out rather thick, and bake in a hot oven. Split quickly with a sharp knife into two parts, and butter both well; place on the lower one a mixture of crushed ripe raspberries, a little powdered sugar and a little cream; add a second crust, and also place on same crushed berries, sugar and cream. This can be eaten warm, and is quite delicious.

Some people prefer to use whole raspberries instead of crushing them, in which case only berries and sugar should be placed upon the crusts, and the shortcake should be served cold with iced milk or cold whipped cream sweetened with sugar and flavored with vanilla.

RASPBERRY FLOAT.—This is an exceedingly pretty dessert, as well as a very pleasant one. Crush a pint of very ripe red raspberries with a gill of sugar. Beat the whites of four eggs to a stiff snow, adding gradually a gill of powdered or confectionery sugar. Press the raspberries through a fine sieve to free same from the seeds, and then by degrees beat the same

for further use. As the white of egg drains off remove the berries, and dip them immediately into a shallow pan of powdered sugar, and place in a dish to crystallize. The white of egg may have to be beaten up two or three times during this process. After crystallization has taken place, put the berries into your dessert-dish, and place in a refrigerator or other cool place before serving.

As stated above, the raspberries, being quite sweet in themselves, require little sugar, and while the quantity called for in these recipes will probably suit nearly all, it is possible that some housewives may desire to lessen or increase the quantity, as well as change the various flavors. Tastes vary so greatly that a collection of recipes, though all taken from reliable sources, may not as a whole be a success, while one or more may be well liked in each home.

EMMA LOUISE HAUCK.

VERMIN.

CIMEX LECTULARIUS.—Many a housewife is disheartened when she finds that the house into which she has just moved was inhabited before she arrived, and that already her nicely cleaned beds are being occupied. A sure death for such invaders is benzene. It will at once destroy all insect life, and does not injure carpets or furniture. Fill a long-necked can with this fluid and apply it thoroughly in all cracks and crevices where the bugs or their eggs may be. Leave the doors and windows open, and the odor will quickly evaporate. Benzene should be used only in daylight, as it is inflammable, and must not be carried near an open fire or light.

ANTS.—This pest, if disposed of early in the season, will not bother the housekeeper much afterward. Fill up all the cracks where they appear with plaster of Paris wetted with camphor-water, and paper the backs of your cupboard, using strong camphor in the paste. They are often brought into the house in flowers. Keep your shelves dry, as dampness attracts all vermin.

ROACHES.—Sprinkle borax around freely. Keep papers off your shelves a while.

RATS AND MICE.—A good terrier or cat is the best exterminator of this pest. It is astonishing the damage these things can do in a short time.

VIOLET TRAY-CLOTH.

This handsome design can be used for regular tray-cloth as well as cover for wash-stand, etc. Work the violets in the regular shades and the stems and leaves in green. The edge is best worked in white; the ten short scallops, however, would be very effective worked in fine twisted silk to match the violets.

This design (Premium No. 0750), stamped on fine linen eighteen by twenty-seven inches in size, will be sent to any address for thirty-five cents; silks to work will be sent for fifty cents extra.

99⁴⁴/₁₀₀ Per cent PURE

MORRY SOAP

The snowy whiteness of
linens, lawns, nainsooks
and dimities is preserved
by washing them
with a pure soap.



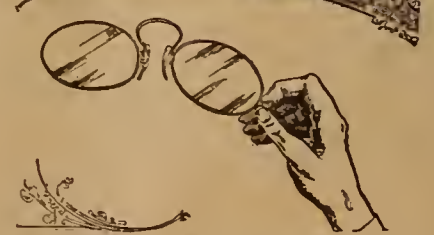
in with the egg and sugar, and beat the whole until it stands up in "peaks." Place same in your glass dessert-dish, beat lightly until the dessert looks fresh and tempting and even artistic.

RASPBERRY PUDDING.—This pudding requires one pint of milk, two beaten eggs, one teaspoonful of salt, one scant teaspoonful of baking-powder, and flour enough to make a thick batter. Sift some flour, the salt and the baking-powder into your mixing-bowl, after which add the milk, beaten eggs, and more flour if necessary. Prepare one pint of raspberries for use, sift flour over them well to make their separation in the batter easier, and stir the berries in the batter at the last. Steam this pudding one hour, and serve with a lemon sauce.

ICED RASPBERRIES.—This is simply another way of serving the fruit fresh and uncooked, and should make an exceedingly pretty and dainty dish. Beat well the white of an egg with a little water; dip the fruit in same, roll it immediately in powdered sugar, place in a dish, and let stand five or six hours to crystallize; then serve as cold as possible.

It might be well to take a small strainer, put a few berries at a time in same, and pour over them the beaten white of egg, allowing it to drain back into a cup

HERE'S YOUR SPEC'S



50c buys a pair of Gold Glasses

Warranted to give satisfaction. We sell at wholesale prices and furnish Eye Tester so you can fit your eyes with proper lenses. Satisfaction guaranteed or money refunded. Send for circular which explains fully the quality of the goods, etc.

THE OPTICAL MFG. CO., Springfield, Ohio.

Our Sunday Afternoon.

ESTRANGED.

You are far away from your father's house;
Come back! come home!
You are tired and troubled and hungry and
sad,
Off there alone.
In your Father's house is enough and to
spare,
Come home! come back!
Of love and pity and comfort and care
You shall find no lack.

He loves you—loves you in spite of all;
He will watch and wait;
He will see you coming a long way off,
Though the night be late;
He will greet you, kiss you, fold you close
To his loving breast;
Oh, prodigal! turn from your worthless husks,
Come home and rest!

Come back! come home! for the music lacks
One glad, sweet strain
That shall rise and fall and echo and ring
When you come again.
Soft sandals wait for your weary feet,
And vestures white
To clothe you fully. Oh, swift come home,
Nor wait till night!
—Lillian Gray, in Zion's Herald.

THE SECRET OF THE RELIGIOUS LIFE.

LEARN but one secret, and learn that secret by heart; then you will become transformed and transfigured. Put envy and covetousness under your feet and tread them into the sod. Take your life as you find it, and make out of it the best that materials allow.

No man is alone who is in God's company, and no man's work is of slender importance if he is doing it at God's command and doing it in God's way. You may not be the pendulum which makes the clock ticks as it swings; you may not be the bell whose hammer sends the silvery sound throughout the city; but who dare say that the smallest wheel in all that complicated machinery has not a function on which the completeness and the value of the whole depend? The pendulum ceases to swing and the bell is dumb unless that smallest wheel recognizes its responsibility, and fulfills it.

You may be little, but you can also be great. Grandeur of soul is the prerogative of every man that lives. No matter what your station, the bottom of the ladder up which we climb is within your territory. Nothing that you do is of small consequence. Therefore, do little things with a noble purpose, and nobility of heart and sweetness of life will be your recompense.

You are poor? Well, even poverty has its opportunities. A kindly word is possible. The flowers will grow in your window as well as in the conservatory of the rich, for both depend on the same sunshine. And their perfume will be as grateful to you as to the prince. So good deeds may be planted in the little corner in which you live, and perhaps one of them may shape some young life.

Therein lies the secret of the religious life. It bids you be patient and loyal and honest. It teaches you to love all mankind. And that state of mind, consecrated by the blessing of God, sends forth a thousand magnetic currents which stir nobler feelings in lives of which you have never heard.

Goodness is within reach of all, and goodness is true greatness.—George H. Hepworth.

WHO WERE THE BIGOTS?

Not long since an infidel lecturer visited a town to deliver a series of lectures against the Bible and Christianity. The people of the community took no particular interest in it, and so there was only a fair attendance. The lecturer stood it very well for a night or two, and then began a tirade of abuse of the Christians in the town for their "bigotry" in refusing to hear his arguments against their religion. He made his point good and strong by using the fact that they were unwilling to hear him, and so they must be bigots of the worst kind. When he had finished he gave an opportunity for persons who desired to do so to ask any questions or make any remarks. A gentleman arose and said:

"I would like to know how many infidels there are present, and in order to test the matter I will ask all the infidels present to stand up."

"About fifty arose, nearly all the people present.

"Now," said the gentleman, when they had sat down, "I would like all of those who have risen and said they were infidels, who have attended church in the last five years, to stand up."

Five of them arose, when the gentleman continued:

"Just one tenth of you have been willing to hear both sides, and according to the judgment of the lecturer this evening nine tenths of you are bigots, for you are too bigoted to hear the arguments in favor of Christianity."

He sat down, nothing more was said, and the meeting was dismissed.—Christian Oracle.

A PICTURE.

"Blessed are they that hunger and thirst." Think of the picture that that suggests—the ravenous desire of a starving man, the almost fierce longing of a parched throat. Is that a picture of the intensity, of the depth of our desires to be good? Do we professing Christian men and women long to be delivered from our evils and to be clothed in righteousness with an honesty and an earnestness and a continuity of longing which would make such words as these anything else, if applied to us, than the bitterest irony?

Oh, one lookout over the Christian church and one look into one's own heart, and contrast the tepid, the lazy, the occasional, and, I am afraid, the only half-sincere wishes to be better with the unmistakable earnestness and reality of our belongings to be rich or wise or prosperous or famous or happy in our domestic relationships.—Alexander Maclaren.

AS A LITTLE CHILD.

God knows me better than I know myself. He knows my weakness—what I can do and what I cannot do. So I desire to be led, to follow him; and I am quite sure that he will thus enable me to do a great deal more in ways which seem to me almost a waste in life, advancing his cause, than I could in any other way. I am sure of that. Intellectually I am weak; in scholarship, nothing; in a thousand things, a baby. He knows this, and so he has led me and greatly blessed me, who am nobody, to be of some use to my church and fellow-men. How kind, how good, how compassionate art thou, oh, God! Oh, my Father, keep me humble! Help me to have respect toward my fellow-men, to recognize these several gifts as from thee. Deliver me from the diabolical sins of malice, envy or jealousy, and give me hearty joy in my brother's good.—Norman Macleod's Diary.

IMPERISHABLE.

A writer in the "Central Baptist," speaking of the futility of all efforts to suppress Christianity, says:

"One of the most remarkable features of the history of Christianity is the number of times it has been suppressed by its adversaries. When the stone was rolled against the mouth of the sepulcher, and Roman guards put on watch over it, exultant Pharisees went home to hold a celebration over the final suppression of the new faith. A little later they imprisoned the heralds of the cross, and renewed their celebration. This performance has been going on century after century through all the ages, until one would suppose the skeptics would be ashamed of the repetition. In the face of all our faith flourishes and the ranks of believers multiply every year."

THE MANNA OF THE DESERT.

The manna sent to the Israelites on their journey out of Egypt to the Holy Land is regarded as identical with an edible lichen in Kenner and Oliver's "Natural History of Plants," and the older view that it was the sap of a tamarisk, exuded under the influence of a parasite, is held to be without foundation. Mr. M. J. Teesdale reviews the subject in the February number of "Science Gossip," and the evidence he brings forward is opposed to the conclusion to which reference has been made. He shows that an exudation from the twigs of the tamarisk (*Tamarix gallica*) has more points of resemblance to the manna of the Israelites than either the edible lichen or the sweet gums exuded by leguminous shrubs, such as *Alhagi mauro-rum* or *Alhagi desertorum*—both known to the Arabs as camel's-thorn.

Fell to the Floor.

HIS LEGS SUDDENLY GAVE OUT.

Thomas P. Bigg, of Cleveland, Stricken as He was Preparing for a Visit to Friends.

From the Leader, Cleveland, Ohio.

Of the list of the many so-called incurable disorders none has proved to be more of an enigma to the most learned and accomplished physicians than locomotor ataxia, or as it is more commonly known, creeping paralysis. This dread disease has baffled their skill, and they have been forced to admit that they cannot successfully cope with it. All they have been able to do is to mitigate the accompanying pain and suffering; beyond this the science of medicine has been of little or no avail to the many unfortunates who have contracted the dreadful malady, which many people, especially those who are thus afflicted, believe is a forerunner of the grim messenger of death.

Thomas P. Bigg, who lives at No. 1073 St. Clair Street, corner of Lawrence St., Cleveland, O., has been suffering from locomotor ataxia for nearly five years, and nothing but his wonderful vitality has prevented his dissolution long before this.

The malady is directly attributable to his exposure during army life. He enlisted in the Third Regiment Ohio Cavalry in Toledo, and served nineteen months in the volunteer service, and after the close of the rebellion, eighteen months in the regular army. "At first," he said in narrating his experience, "my stomach went back on me, and for six weeks I was laid up in a hospital in Texas. Ever since that time that organ has caused me trouble, and about seven years ago the doctor told me I was suffering from acute indigestion. That was bad enough, but four years ago last July paralysis came on, and I have been using these crutches ever since. The paralysis was in my legs, and it came rather suddenly. I noticed at first that my knees were a little stiff, a sort of rheumatic pain, you know. This quickly developed into paralysis.

"I tried all kinds of remedies, and I tried physicians, but I did not improve. All this time, though, I was holding my own—

wasn't getting any worse. A short time ago I was induced to try Dr. Williams' Pink Pills. I did not expect this last venture would prove any more beneficial than all the others which preceded it. But I am pleased to say I was most agreeably disappointed. Dr. Williams' Pills are simply wonderful. I began to use them two months ago. My legs then were perfectly numb and cold—nothing could warm them. After suffering with paralysis for more than four years, I now experience a comforting feeling of warmth in my lower limbs. I tell you I feel like shouting when I think of escaping from my bondage, and my mind is on the subject pretty much of the time. I intend to continue the use of the pills until my legs are as good and useful as they were in their best days, and I feel that will be soon."

"What effect have the pills had upon your stomach?" Mr. Bigg was asked. "As regards that," said he, "you can readily believe that a stomach which has been seriously out of order for thirty-five years is in bad shape. Nothing used to stay on my stomach, and I was subject to violent fits of hiccoughing. Then I would have to take an opiate to get to sleep. But now I find that food stays on my stomach, though I do not suppose that organ will ever be in first-class shape again. Still I am satisfied to think that it is improved to such a degree, and that I can eat with a feeling of ease."

For six years until a month ago, October, 1896, Mr. Bigg kept a stationery and confectionery store at No. 347 East Madison Ave., directly opposite the Madison Ave. School. He sold out his business and can now be found at any time at No. 1073 St. Clair St.

Dr. Williams' Pink Pills are sold by all dealers, or will be sent post-paid on receipt of price, 50 cents a box, or six boxes for \$2.50 (they are never sold in bulk or by the 100), by addressing Dr. Williams' Medicine Company, Schenectady, N. Y.

\$1.50 SET OF SPOONS FREE

We will give this Set of Six Silver-plated Teaspoons FREE to club raisers for 6 remainder-of-this-year subscribers to Farm and Fireside. The subscribers may accept any offer in this issue.

In this case the club raiser will be entitled to six guesses in the Missing Word Contest, and each member of the club will be entitled to a guess. See page 19.

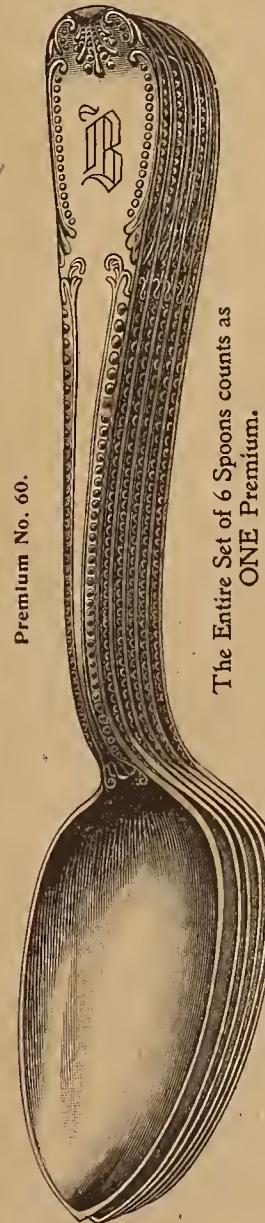
Price of this Set of Six Excellent Silver-plated Teaspoons, and Farm and Fireside One Year, Only 75 Cents.

These spoons are made of solid nickel-silver metal all the way through, and then heavily plated with coin-silver. They can be used in cooking, eating, medicines and acids the same as solid silver spoons. These spoons will not, cannot turn brassy, will not corrode or rust, and are so hard they won't bend. Spoons of equal merit are sold in the average jewelry-store for about \$1.50 a set. In beauty and finish they are as fine as solid coin-silver spoons costing \$6.00 a set. For daily use, year after year, nothing (except solid coin-silver) excels these spoons. They are silver color through and through, and will last a lifetime. They are **Guaranteed to be as described, and to give SATISFACTION, or MONEY REFUNDED.**

INITIAL LETTER Each and every spoon will be engraved free of charge with ONE initial letter in Old English. Say what initial you want.

WILL STAND ANY TEST

To test the spoons, use a file. If not found as represented, we will refund your 75 cents and make you a present of the subscription. If returned to us we will replace, free of charge, the spoon damaged in making the test, provided you agree to tell some of your neighbors about the test and what it proved.



Premium No. 60.

The Entire Set of 6 Spoons counts as ONE Premium.

Postage paid by us in each case.

FARM AND FIRESIDE, Springfield, Ohio.

Notice to June Contestants.

The names of the prize-winners in the JUNE contest will be announced in the July 15th issue of FARM AND FIRESIDE. This issue goes to press on the twenty-first day of June, and as the June contest does not close until June 30th, it is, of course, impossible to give the names of the prize-winners. The circulation of FARM AND FIRESIDE is so extensive that we have to begin printing it about ten days ahead of the date of issue in order that all subscribers—no matter whether they live in Ohio or California—will receive it on about the same day.

PUBLISHERS FARM AND FIRESIDE.

Our Miscellany.

MOORISH women never have a birthday. It is a point of honor with them to ignore the anniversary altogether, lest they should seem to grow old.

CONDUCTORS of the C. H. & D. and B. & O. S. W. Railways and Big Four Route have been instructed to refuse to accept mileage tickets of the Columbus, Hocking Valley and Sandusky Railway after June 9th.

THE queen of Denmark, in her seventy-sixth year, is one of the finest harpists in the world. A thoroughly accomplished musician, she assists in trios of which the other two parts are taken by professionals of high standing.

TO LACE-MAKERS: Contributions of lace-work and embroidery are purchased at good prices for Barbour's Prize Needlework Books. Send 10 cents for No. 5, full of charming new patterns. Barbour Bros. Co., Needlework Dept., K. 218 Church St., N. Y.

THE newsboys in a certain quarter in London are encouraged to save a penny a day. The money is kept for them in a savings bank, and the boy who deposits regularly for a month is given one penny interest on his money. The bank is the work of a good woman.

ATTENTION of our readers is called to the advertisement of Whitman's Celebrated Hay Presses, manufactured by the Whitman Agricultural Co., of St. Louis, Mo. Their presses are made to run by belt or horse power, and they guarantee them to be more rapid, powerful and durable than any press now on the market. This old and reliable firm has recently erected a very extensive and complete plant for manufacturing their several specialties, enabling them to fill all orders promptly. Write them for special catalogues of their several lines of farm machinery, and be sure and mention this paper when you write.

THE dowager queen of Portugal is probably the best-dressed woman in Europe. She is tall and elegant, has a wonderful grace of manner, which recalls that of her father, Victor Emanuel, and, like him, devoted to sports of all kinds.

4th OF JULY EXCURSIONS.

July 3d, 4th and 5th, at one fare via the Nickel Plate Road.

THE eight flowers most prized by the Japanese are the morning-glory, apricot, cherry, wistaria, peony, iris, lotus and chrysanthemum.

CREAMERIES IN SOUTH DAKOTA.

During the past two years the creamery industry has grown from a small beginning until at the present time there are one hundred and nineteen (119) creameries and cheese factories scattered over the state, and all doing well.

Four times as many creameries are needed in South Dakota, and farmers or dairymen desiring free list showing where creameries are now located, together with other information of value to live stock growers and farmers generally, will please address GEO. H. HEAFFORD, General Passenger Agent, C. M. & St. P. R'y, 410 Old Colony Bldg., Chicago, Ill.

REMEDY FOR INSECT STINGS.

It is well known that liquid ammonia relieves the effects of the stings of bees. A correspondent informs us that a much more effectual antidote is the mixture known as ammoniated tincture of quinine. On several occasions, when stung by bees, he found that the quinine mixture would give much quicker and greater relief than ammonia alone.

ONE FARE TO MINNEAPOLIS.

July 3d and 4th, via the Nickel Plate Road, because of Elks' excursion.

TALL BUILDINGS IN ANTIQUITY.

That even tall buildings are not modern ideas is shown by Professor Lonciani in the "North American Review." In Rome much the same tendency was shown to erect tall buildings as has been experienced of late years in America. They had not steel construction to aid them or elevators to land their tenants on upper floors, yet the desire to build lofty buildings was strong upon them, and successive emperors issued edicts limiting the height of houses, seventy feet being allowed by Augustus on the street front, but these regulations were repeatedly violated. With our facilities for iron or steel construction and the knowledge of elevators the Romans would doubtless have matched us in "sky-scrapers." As it was, these ancient houses were often a hundred feet high. The Romans were great builders, and their speculators in this line would without doubt match ours in utilizing every inch of space without regard to light and air. Tenement-house reform would have had in those early days a wide field to work in. Whatever else may be said of their Caesars, it must be recognized that they had an eye to the health and comfort of the common people, and used their efforts to check such buildings.

CRIPPLE CREEK INVESTMENTS.

Big fortunes have been made by a small investment in Cripple Creek stocks, and the way many have suddenly acquired wealth would make interesting reading. We can not here go into details, but if you will write us we will suggest a plan that will materially improve your pecuniary condition. We have something special to offer, and it will cost you nothing to send us your name and get on our list for Cripple Creek literature. Our facilities in the stock business are unexcelled. Address The Mechem Investment Company, Colorado Springs, Colorado.

THE HAIR.

It is pretty generally known that straight hair is due to the lead-pencil-like roundness of the individual hairs, while curly hair is composed of flat, separate hairs that warp together after the manner of shavings. Another fact regarding the structure of the separate hairs was recently revealed by a close microscopic examination. The long, uncut, frayed or split ends were discovered to be prehensile filaments, and when kept long enough in position against the skin these took thrifty root, forming loops on the throat of a microscopist who made himself the subject of the experiment.

EXCURSION TO NASHVILLE VIA C. H. & D. RY.

For the Tennessee Exposition, which opened at Nashville May 1st and continues until October 31st, agents of the C. H. & D. Ry. will sell excursion tickets. Persons desiring to go to Nashville will be furnished full information regarding time of trains, etc., on application to agents of the C. H. & D. Ry.

BUTTER MONEY FOR ARMENIA.

The Wellesley College girls are not content merely to drop a tear for suffering Armenia. They have agreed to do without butter for a month if the faculty will give the butter money to the cause of Armenia. This should net a good sum, and tastes of sacrifice.

AN AWFUL SUFFERER.

If there is any disease which is awful in its effects upon the sufferer, that disease is Asthma and Hay Fever. Suffocating, gasping for air, and sitting up, perhaps for weeks in an agony of despair, weary, worn and helpless, such is the life of one who is afflicted with Asthma or Hay Fever in the worst form. An explorer on the Congo River in Darkest Africa, some years ago, discovered a never-failing cure in the Kola Plant. And now, all over Europe, physicians are endorsing and prescribing the Kola Compound as the only constitutional cure for Asthma and Hay Fever. There are seven thousand recorded cures within three months. Many sufferers give grateful testimony of the curative powers of this remarkable plant. Mr. Wilson P. Moulton, a leading carriage manufacturer of Providence, R. I., testifies that it cured him of Asthma of 23 years' standing. Mr. Alfred C. Lewis, Editor of the "Farmers' Magazine," of Washington, D. C., and Rev. J. L. Combs, of Martinsburg, West Va., give similar testimony, the latter stating that he had suffered from Asthma for nearly thirty years, could not lie down at night in Hay Fever season for fear of choking, and was promptly cured by the use of the Kola Plant. Many others speak in similar terms of this new hotanle curative. So sure are the Importers of Kola of the fact that it cannot fail to cure, that they are sending out large trial cases free to any sufferer who makes the request. For the benefit of our readers who may be afflicted, we cheerfully give the address of the Importing Company, who have given this great boon to humanity. Address, Kola Importing Co., No. 1166 Broadway, New York, and they will send you a Large Trial Case, free, by mail, and prepaid.

Recent Publications.

CIRCULARS RECEIVED.

Kohn Bros., Chicago, Ill. "From Fold to Salons," a handsomely illustrated booklet on wool and clothes. Most of the illustrations are reproductions of famous paintings. Sent free on application. A. H. Farber & Co., 229 South Water street, Chicago, Ill. Illustrated pamphlet on "Artificial Refrigeration and Ice-making for Creameries, Markets, Hotels, etc." John H. Jackson, Albany, N. Y. A valuable treatise on "Benefits of Drainage, and How to Drain," with descriptive price-list of drain-tiles and draining-tools.

THE DOCTOR'S WINDOW

Poems by the Doctor, for the Doctor, and about the Doctor.

Edited by INA RUSSELLE WARREN, Introduction by WILLIAM PEPPER, M.D., LL.D.

The compilation of this collection has required two years and it contains nearly every poem of importance on the subject in the English language, including: Armstrong's "Art of Preserving Health," Garth's "Dispensary," Henley's "In the Hospital," Dr. Holmes' "The Morning Visit," and "Rip Van Winkle, M.D.," Riley's "Doc Sifers," Carleton's "The Country Doctor," and "The Doctor's Story," Eugene Field's "Doctor Rahelais," and "His Pneumogastric Nerve," Peck's "Bessie Brown, M.D.," Whittier's "To a Young Physician," and about seventy-five other standard poems. It also includes a number of powerful poems never before published. Nearly every phase of the physician's life is introduced, both grave and gay. The book will go through the press under the direct supervision of the editor, and will be printed with large, open-faced type on heavy linen paper, will be royal octavo in size, 7x9 1/4 inches, and illustrated, making a volume of over 240 pages. The bindings will be in library style, uncut, gilt top. Price, in cloth, \$2.50; full morocco, \$5.00.

AGENTS WANTED.—As the canvass is confined to the medical profession, it is inexpensive and very profitable. For further information address the publisher, CHARLES WELLS MOULTON, BUFFALO, N. Y.

Don't Stop Tobacco

Suddenly, to do so is injurious to the nervous system. Baco-Curo is the only cure that cures while you use tobacco. It is sold with a written guarantee that three boxes will cure any case, no matter how bad. Baco-Curo is vegetable and harmless; it has cured thousands, it will cure you. At all druggists, 25 cts. and \$1 per box; 3 boxes, \$2.50. Booklet free. EUREKA CHEMICAL & MFG. CO., La Crosse, Wis. Mention this paper.

17c. PER ROD Is all it costs to build the best Woven Wire Fence on earth with our Automatic Machine. We sell the Famous COIL SPRING WIRE CATALOGUE FREE. KOKOMO FENCE MACHINE CO., Box 67, Kokomo, Ind. Mention this paper.

A \$2.00 monthly payment for ten months will secure you 100 shares in a dividend-paying British Columbia Gold Mining & Developing Company. You are almost sure to double your money and have a permanent income. The mines are in active operation, yielding handsome returns. Only one hundred thousand shares to be allotted, therefore it is necessary for you to remit promptly. Pass books furnished, prospectuses forwarded and references given. Address W. FULLERTON, No. 26 Melinda Street, TORONTO, CANADA. Mention this paper.

600 Second Hand BICYCLES to close out. All makes, GOOD AS NEW, \$5 to \$15. NEW, HIGH GRADE '96 Models, fully guaranteed, \$16 to \$24. '97 Models \$20 to \$30. Shipped anywhere on approval. Special Clearing Sale. EARN A BICYCLE by helping advertise us. We will give one in each town FREE. Write at once for our Special Offer. E. F. MEAD CYCLE CO., Wabash Ave., Chicago, Ill. Mention this paper.

COLUMBUS 1897 BICYCLES for \$27.50 while they last; only limited number. Judson A. Tolman, 282 Wabash, Chicago.

CONTEST CLOSES JULY 31.

Don't delay in sending your guess in the missing word contest. Remember that the 4 \$100 bicycles are given for the first correct answers, but EVERY ONE who guesses the missing word gets a very fine book. For a description of the bicycles write to the National Sewing Machine Co., Belvidere, Ill. See page 19 for full particulars.

4 BICYCLES FREE.... TO FARM AND FIRESIDE FOLKS. On page 19 will be found the full particulars of our Missing Word Contest for July. How many can guess the missing word in the following sentence? "The inhabitants of our country have lately had a useful lesson on this subject." Try it. If you guess it you will get a very fine book, and if you guess it first you will get a bicycle free. See conditions and particulars on page 19. Each contestant must accept some of our subscription offers in either this or previous issues of Farm and Fireside. The guess must be sent in the same envelop with the subscription. Below are some very liberal offers. SUBSCRIPTION BARGAINS.... For 25 CENTS we will send this paper for the REMAINDER of this year and any ONE of these six premiums: Prem. No. 801. ROBINSON CRUSOE Prem. No. 820. PILGRIM'S PROGRESS Prem. No. 17. STANDARD COOK BOOK Prem. No. 810. HORSE BOOK Prem. No. 27. HISTORY AND MAP OF CUBA. Prem. No. 816. POULTRY BOOK For 30 CENTS we will send this paper for the REMAINDER of this year and any ONE of these five premiums: Prem. No. 411. FIVE GERANIUMS Prem. No. 410. SIX TEA-ROSES Prem. No. 640. CRIMSON RAMBLER ROSE Prem. No. 63. THE ARTS OF BEAUTY Prem. No. 26. GEMS FROM THE POETS For 35 CENTS we will send this paper for the REMAINDER of this year and any ONE of these five premiums: Prem. No. 7. LIFE OF WASHINGTON Prem. No. 15. LIFE OF LINCOLN Prem. No. 100. CHRIST BEFORE PILATE Prem. No. 30. BEAUTIES AND WONDERS OF LAND AND SEA Prem. No. 11. THE PEOPLE'S ATLAS For 40 CENTS we will send this paper for the REMAINDER of this year and either ONE of the following premiums: Prem. No. 180. BERRY-SPOON Prem. No. 34. SAMANTHA AT SARATOGA Each and every premium guaranteed to give entire satisfaction or money refunded. Postage paid by us in each case. Address FARM AND FIRESIDE, Springfield, Ohio.

40 Cent Patterns for 10 Cents

Any TWO Patterns, and Farm and Fireside One Year, 35 Cents.

These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only 10 Cents Each.

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there

being a separate pattern for every single piece of the dress. All orders filled promptly.

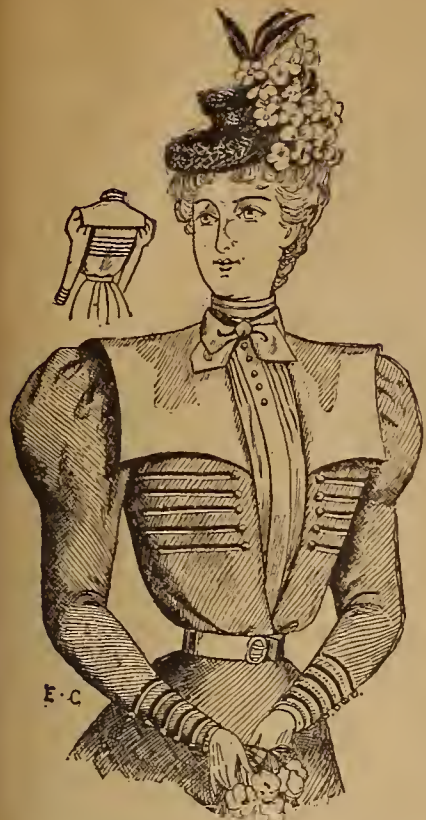
For ladies, give BUST measure in inches. For SKIRT pattern, give WAIST measure in inches. For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded.

To get BUST and BREAST measure, put the tape measure ALL of the way around the body, over the dress close under the arms.

Special price of each pattern, 10 cents.

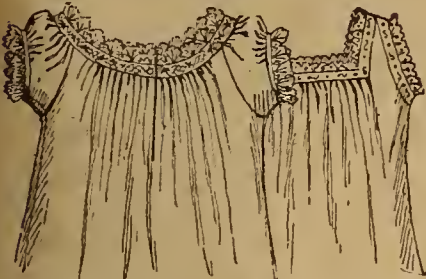
Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.



No. 7113.—LADIES' BLOUSE WAIST. 10c. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7088.—CHILD'S ORGANDIE BONNETS. 10 cents. Sizes, 1, 2, 4 and 6 years.



No. 6174.—LADIES' CHEMISE. Both for 11c. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7089.—LADIES' SHIRT-WAIST, WITH TUCKED FRONT. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7039.—GIRLS' DRESS, WITH BOLERO FRONTS. 11 cents. Sizes, 6, 8, 10 and 12 years.



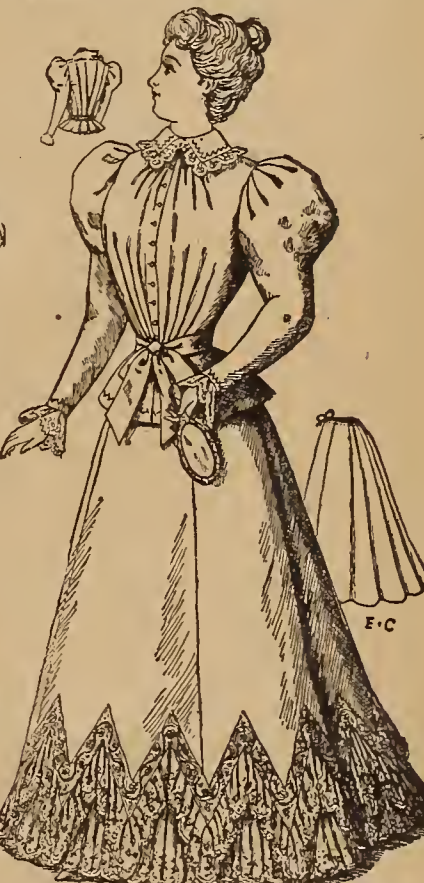
No. 7096.—LADIES' FRENCH COMBINATION DRAWERS AND CORSET-COVER. 10 cents. Sizes, large, medium and small.



No. 7098.—BOYS' SHIRT-WAIST. 10 cents. Sizes, 4, 6, 8, 10 and 12 years.



No. 7102.—LADIES' FIVE-GORED SKIRT, WITHOUT DARTS. 11 cents. Sizes, 22, 24, 26, 28 and 30 inches waist.



No. 7095.—LADIES' HOUSE JACKET. 10c. Sizes, 32, 34, 36, 38, 40 and 42 inches bust. No. 6957.—LADIES' GORED PETTICOAT. 11c. Sizes, 22, 24, 26, 28 and 30 inches waist.



No. 7100.—LADIES' BLAZER. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust. No. 6990.—LADIES' SEVEN-GORED SKIRT. Sizes, 22, 24, 26, 28 and 30 inches waist. 11c.



No. 7094.—LADIES' CORSET-COVERS. 10c. Sizes, 32, 34, 36, 38 and 40 inches bust.

P. S.—I have used a dozen or more of your patterns, and they have always given satisfaction. MOLLIE BURKHART, Ozark, Ohio.

I have used several of your patterns with entire satisfaction. I can safely recommend them. GERTIE HENRIE, Maple Park, Ill.



No. 7069.—LADIES' BASQUE. 10 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.



No. 7092.—LADIES' FRENCH BLOUSE WAIST. Sizes, 32, 34, 36, 38 and 40 inches bust. 10c. No. 7085.—Same Pattern—Misses' Size. Sizes, 12, 14 and 16 years. 10 cents.



No. 6779.—BOYS' SUIT. 10c. Sizes, 2, 4 and 6 years.



No. 7087.—MISSSES' YOKE WAIST, WITH DRAPED BERTHA. 10 cents. Sizes, 10, 12, 14 and 16 years.

WE HAVE OFFICES IN NEW YORK CITY, SPRINGFIELD, OHIO, AND CHICAGO, ILLINOIS.

NOTICE.—Send all orders for patterns direct to the central office, to FARM AND FIRESIDE, SPRINGFIELD, OHIO, where our stock of patterns is kept.

The Most Richly Illustrated Book of Biography in the World

AMERICAN WOMEN

Edited by MISS FRANCES E. WILLARD and MRS. MARY A. LIVERMORE.

Thirteen Hundred Fine Portraits.

This surpassingly important and veritably entrancing work contains 828 double-column Royal Quarto pages, 10½ inches long and 7½ inches wide. It comprises 1,500 life sketches, representing every walk in life, and these histories astonish as well as delight the reader in describing the wonderful success in a hundred different callings which our gifted countrywomen are triumphantly achieving.

GARNERING THE ILLUSTRIOUS RECORD OF WOMANLY DEVOTION TO DUTY

And sustained heroism in private and in public life, of struggle and achievement, of fame-winning and bread-winning, of successful endeavor and progress in a hundred different lines of business and the professions, of great undertakings in noble philanthropies and famous reforms, it has no parallel in literature. ❀ ❀ ❀ ❀ ❀ ❀

This Great \$10 Book We Sell for \$2. ❀ ❀ ❀

Think of it! You will ransack the past and present in vain for any such bargain, for this crowning example of Nineteenth Century Literature and Art is a library in itself, a matchless gallery of portraits, where the beautiful, renowned or saintly among the women of the Western World look out upon us from every page.

In EDUCATIONAL VALUE "AMERICAN WOMEN" has been pronounced equal to the large Cyclopedias which sell at \$80 to \$120. It is a SUPERB PARLOR BOOK, superadding to its pleasing subject

A SCALE OF ILLUSTRATION LAVISH BEYOND PRECEDENT

Having over 1,300 Finely Executed Portraits from original photographs and celebrated paintings. Such an assemblage of pictured Beauty and Worth was never before brought within a single publication. In this mind-enriching, noble production hundreds of inspiring and ennobling examples are embalmed, some of them among

THE FINEST CHARACTERS IN HUMAN HISTORY

They tell of privation, obscurity, toil, discouragement, loneliness, difficulties of every kind, courageously met and conquered by the faith and effort of womanly women in every sphere. With impressive eloquence they proclaim the excellence and beauty of seeking the higher aims, and making duty and endeavor the watchwords of life.

"American Women" Gives the Life Story of Women Who Are

ARCHITECTS,
ACTORS,
ART EDUCATORS,
ARTISTS,
ASTRONOMERS,
AUTHORS,
BANKERS,
BROKERS,
BUSINESS WOMEN,
CERAMIC ARTISTS,
CHEMISTS,
CHURCH WORKERS,
CLUB LEADERS,
COMPOSERS,

DECORATORS,
DENTISTS,
DESIGNERS,
DRAMATIC READERS,
EDITORS,
EDUCATORS,
ELOCUTIONISTS,
EVANGELISTS,
FARMERS,
FINANCIERS,
HISTORIANS,
HORTICULTURISTS,
HUMORISTS,
HYMN-WRITERS,

INVENTORS,
JOURNALISTS,
KINDERGARTNERS,
LABOR CHAMPIONS,
LAWYERS,
LECTURERS,
LIBRARIANS,
LITERARY CONTRIBUTORS,
MILITARY GENIUS,
MINISTERS,
MISSIONARIES,
MUSICAL EDUCATORS,
MUSICIANS,
NATURALISTS,

NOVELISTS,
OFFICIALS, MUNICIPAL,
" COUNTY AND STATE,
" UNITED STATES,
OPERATIC SINGERS,
ORCHESTRAL CONDUCTORS,
PATRIOTS AND HEROINES,
PHILANTHROPISTS,
PHYSICIANS,
POETS,
POLITICAL ORATORS,
PRESIDENTS' WIVES, ETC.,
PUBLISHERS,
REFORMERS,

SCIENTISTS,
SCOUTS,
SCULPTORS,
SINGERS,
SOCIAL LEADERS,
SONG-WRITERS,
STENOGRAPHERS,
SURGEONS,
TELEGRAPH OPERATORS,
TEMPERANCE WORKERS,
VIOLINISTS,
WOMAN SUFFRAGISTS,
WOOD-CARVERS,
AND MANY OTHERS.

Specimen Portraits Free

It being requisite to print this work on superfine, extra heavy paper, for the reason that ordinary printing-paper will not allow of bringing out its highly finished engravings, it is impossible to here reproduce any of its pictorial features. But to any subscriber for FARM AND FIRESIDE, or any person intending to subscribe for it, we will send two dozen Specimen Portraits, exactly as they appear on the pages of this luxuriant work, FREE, on application.

Owing to the fact that this work is very large and heavy, it has been found necessary to divide it into TWO VOLUMES of equal size.

Price of Either Volume, and Farm and Fireside for the Remainder of This Year, One Dollar.

HOW TO GET IT FREE Either volume will be given free as a premium for a club of 10 remainder-of-this-year subscribers to FARM AND FIRESIDE. The subscribers may accept any of the premium offers in this or back numbers of this paper.

In this case the club raiser will be entitled to 10 guesses in the Missing Word Contest, and each subscriber will also be entitled to a guess. See page 19.

Postage or expressage
paid by us in each case.

Address MAST, CROWELL & KIRKPATRICK, Springfield, Ohio.

Agents Wanted

For this Great Illustrated, Wonderfully Fast-selling New Book. Most Liberal Terms, with SPECIAL Advantages to Workers. Write for Full Particulars, addressing the Publishers as below.

JULY CONTEST

4 First Prizes { ONE FOR WOMEN
ONE FOR MEN
ONE FOR GIRLS
ONE FOR BOYS } 4 Bicycles Free

And a Fine \$1 Book for Every One Who Guesses the Missing Word.

The prizes are given for supplying the ONE word missing in the following sentence:

"The inhabitants of our _____ country have lately had a useful lesson on this subject."

The sentence was uttered by a great American statesman. It is easy and the missing word is simple. The sentence was selected by a member of our firm, and no one else knows from what book it is taken, or what the omitted word is. The book has been locked up in a burglar-proof safe, and no one will be permitted to see it until the contest closes.

FOR ONE MONTH ONLY } Closes July 31. Stops July 31. Ends July 31. { FOR ONE MONTH ONLY

The Conditions The conditions precedent for sending a guess at the missing word is that each and every guess must be accompanied by a subscription to Farm and Fireside. (Any of the offers in this or past issues of this paper may be accepted.) The guess must be sent in the identical envelop that brings the money that pays for the subscription; forgetting it, or leaving it out by accident or otherwise, or not knowing of the guess at the time you subscribed, or any other reason, will not entitle one to send a guess afterward. *The guess must come with the subscription, or not at all. No changes or corrections allowed after guess is sent in.*

Persons may guess as many times as they subscribe. Club raisers may send as many guesses as there are names in the club, and each member of the club will be entitled to a guess. See clubbing offers in this and back numbers.

\$1 Book A fine \$1 book will be given to EVERY ONE who names the missing word; and if you are the first one to name it correctly, you will get in addition a bicycle free. It costs you nothing to supply the word, and you may get it correctly, as it is easy; but whether you do or not, you get a subscription and a premium. See subscription offers on page 14.

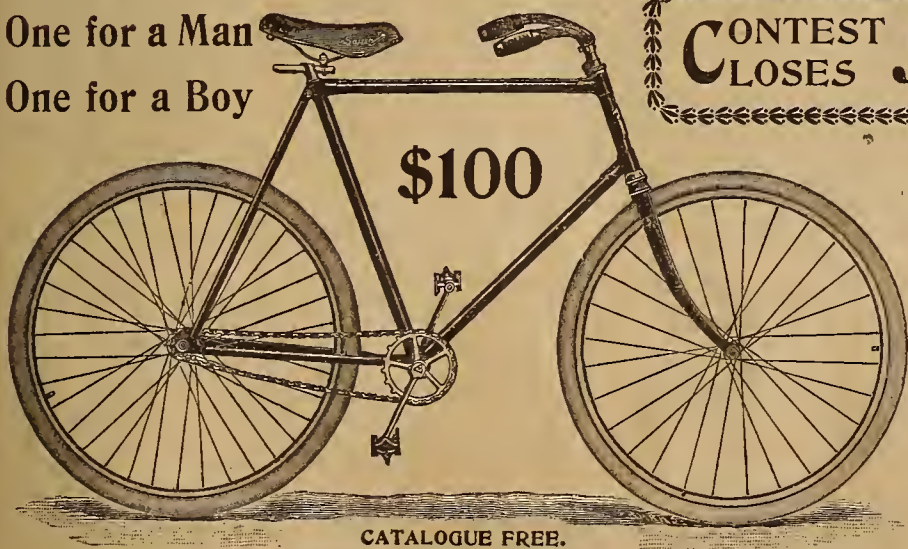
The 4 Bicycles will be awarded to the FIRST woman, the FIRST man, the FIRST girl and the FIRST boy who name the missing word. Therefore, it will be wise to send your guess without delay.

How to Send a Guess You need not write out the sentence in full. Take a separate piece of paper about the size of a postal-card, and write the word you guess, then sign your name, post-office, county and state, and say whether you are a man, woman, girl or boy. *No attention will be paid to a guess not accompanied by a subscription.* Below we give a sample guess, but "running" is not the word.

"RUNNING"
[This is not the missing word] John Smith (boy)
Jonesville
Brown County Arkansas

\$400 IN 4 FIRST PRIZES

One for a Man
One for a Boy



CONTEST CLOSES July 31



Catalogue giving full description of bicycles sent free by the National Sewing Machine Co., Belvidere, Illinois.

The prize bicycles are made by the NATIONAL SEWING MACHINE CO., BELVIDERE, ILLINOIS, which is one of the largest concerns in America. They manufacture over 75,000 sewing-machines and over 30,000 bicycles a year. They sell their product in every civilized country on the globe.

Their bicycles are of the very finest quality. We have been selling their sewing-machines for years, and they have given universal satisfaction. Write for their bicycle catalogue. It is a beauty, and remember that four of the prize-winners get choice of their \$100 wheels.

\$1 Book FREE....

To EVERY ONE who guesses the missing word correctly we will give one volume of the Magnificent Work "AMERICAN WOMEN," edited by Miss Frances E. Willard and Mrs. Mary A. Livermore. (See full description on page 18.) The editors of this monumental work are two of the best known and most beloved women our country has ever produced. Each volume contains nearly 700 portraits and over 400 pages. Each volume would be cheap at \$2.50. This is the most liberal prize offer of the kind ever made.

NOTE.—No more than one volume of this work will be awarded to any one person.

Contest Closes July 31, 1897.

Address FARM AND FIRESIDE, Springfield, Ohio.

LIBRARY RECEIVED
 JUL 20 1897
 DEPARTMENT OF AGRICULTURE



EASTERN EDITION.

Entered at the Post-office at Springfield, Ohio, as second-class mail matter.

VOL. XX. NO. 20.

JULY 15, 1897.

TERMS 60 CENTS A YEAR
 24 NUMBERS.

ANNOUNCEMENT EXTRAORDINARY

July 6, 1897.

We are compelled to announce that the judges in the JUNE word contest have not completed their report, hence we cannot print the names of the prize-winners in this issue, which closes and goes to press to-day, July 6th. The complete report will be printed in the August 1st issue. We regret this delay, but it is unavoidable.

Publishers FARM AND FIRESIDE.

**4 Bicycles Free } IN
 4 First Prizes.. } JULY
 CONTEST**

ONE FOR A WOMAN ONE FOR A GIRL
 ONE FOR A MAN ONE FOR A BOY

And a Fine Book for EVERY ONE who
 Guesses the Missing Word.

The prizes are given for supplying the ONE word
 missing in the following sentence:

"The inhabitants of our — country have
 lately had a useful lesson on this subject"

The sentence was uttered by a great
 American statesman. It is easy and the
 missing word is simple. See page 19.

FOR ONE MONTH ONLY **Closes July 31**

The Conditions The conditions precedent for sending a guess at the missing word is that each and every guess must be accompanied by a subscription to Farm and Fireside. (Any of the offers in this or past issues may be accepted.)

The 4 Bicycles will be awarded to the FIRST woman, the FIRST man, the FIRST girl and the FIRST boy who name the missing word. Therefore, it will be wise to send your guess without delay.

For a full description of the \$100 bicycles write to the National Sewing Machine Co., Belvidere, Illinois. Their fine catalogue will be sent free.

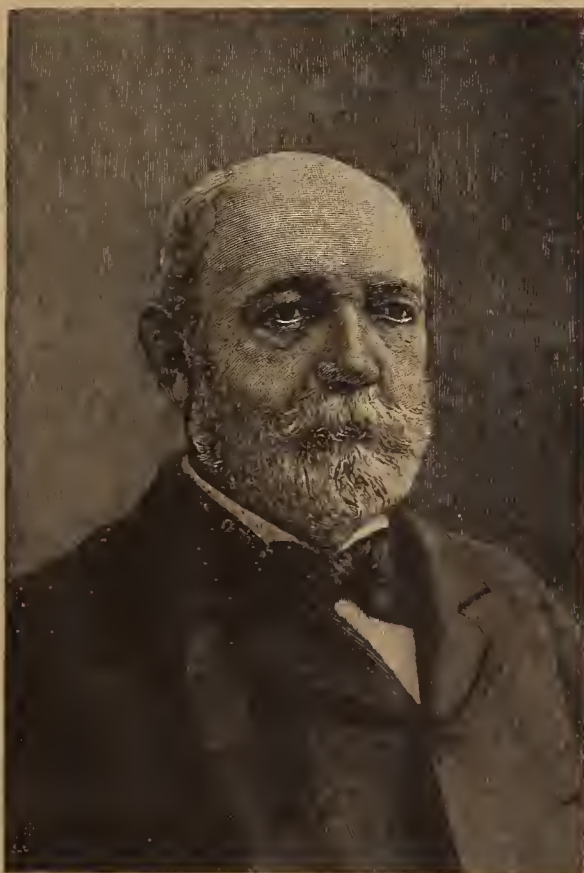
For full particulars see advertisement on page 19.

Publishers FARM AND FIRESIDE.

tions which can never be settled except by one method, and that method is by what in a large way may be called the enlightened intelligence; that is to say, the scholarship of the country. In regard to every single point at issue the most enlightened opinion must express itself so clearly and forcefully that it will commend itself with overwhelming power. The human heart is just, and if the traitor to humanity escapes his proper doom it will be because those who have been trained to be the leaders of thought have fallen short of their high behest. The magnitude of the scholar's duty is to be measured only by the magnitude of the questions that confront him.

"It is the duty of the scholar not only to be the leader of public opinion, but also to be 'an embodiment of public conscience.' It is not enough simply to do; it is necessary also to do right. The more an evil spirit is educated the greater its power, and the worse it is for the world. The fundamental virtues are as necessary for political and social duties as they are for individual life. Upright and downright truth and honesty at all times are as essential as knowledge. It is now, as it always has been, the complete amalgamation of these great elements of power that constitutes the embodiment of the public intelligence and the public conscience—the upper house in the politics of the world."

PRESIDENT D. W. CALDWELL, of the Lake Shore and Michigan Southern railway and Pittsburg and Lake Erie railroad, was born in 1830, in Massachusetts. He entered railroad service as clerk of the Pennsylvania lines in 1852. Since that year he has been, 1853 to 1855, civil engineer; 1855 to 1859, superintendent of the Pittsburg and Connellsville railroad; 1859 to 1869,



D. W. CALDWELL.

superintendent of the Central Ohio railroad; 1869 to 1874, general superintendent of the Columbus, Chicago and Indiana Central railway; 1874 to 1882, general manager of the Pittsburg, Cincinnati and St. Louis, Columbus, Chicago and Indiana Central, Little Miami, Jeffersonville, Madison and Indianapolis, and Vandalia railroads; 1882 to 1887, vice-president of the New York, Chicago and St. Louis railroad; March 28, 1885, to October 1, 1887, also receiver, and October 1, 1888, to Jan-

uary, 1895, president of the same road; September, 1894, to date, president of the Lake Shore and Michigan Southern railway, and January, 1895, to date, also president of the Pittsburg and Lake Erie railroad.

This brief sketch illustrates the merit system of service used in the great business of operating railroads. In his period of forty-five years of railroad service Mr. Caldwell has advanced from the humble position of office clerk through various positions of trust and responsibility to the presidency of two lines.

It is a high testimonial to his executive ability that authorities now name the Lake Shore and Michigan Southern as one of the two most successfully managed railroads in the world. Perfect equality of opportunity is not to be found in railroad service or in any other line of employment, but there are to-day in all lines opportunities for the humblest to rise by virtue of his own abilities and faithful work. That some have done so is evidence that others can and an inspiration to try.

In a conservative editorial on the state of trade, under date of June 26th, "Bradstreet's" says: "The volume of general trade gives evidence in all directions throughout the country of a tendency to improve, though this may hardly be looked for in all lines as compared with last spring. Business is better to-day, or has been better during the past three months, than at a corresponding date one year ago or than it was in October, 1896, or in January this year. There has developed throughout the trade during the current month a pronounced conviction that the coming fall and winter will bring a larger increase in demand for staple articles than has been experienced during a like period since 1893. The complaint oftenest heard is of the unfortunate delay in passing a tariff bill and getting that disturbing element out of the way. The most favorable feature of the business situation, therefore, is its prospective improvement and the comparatively healthful condition in which it finds itself after three or four years of restriction in demand and in credits."

The editorial gives an analysis of business condition based on reports from more than fifty cities, showing moderate improvement within the past two months and widespread confidence that general trade will be active next fall. "The gain," it says, "is more noticeable in the West and Northwest, and is shown in orders for future delivery as well as for immediate shipment. The volume of trade in May was ten per cent larger than May a year ago, and thus far a further increase is shown. In provisions, meats, dairy products and the like no particular complaint is made except as to low prices, particularly for butter and eggs. The present tendency on the part of cereals is to advance, and there has been animation in the speculative market."

THERE has been a gradual improvement in business conditions. There is now a widespread and increasing confidence that in the near future business will be in a better condition than it has been for many months past. Among many things inspiring this hope is the very favorable outlook for all farm crops. Of these the single one of wheat alone is sufficient to cause a decided improvement in business. This country is now harvesting a magnificent crop of wheat of fine quality. Reliable crop experts, like the "Cincinnati Price Current," estimate the yield at 550,000,000 bushels. At the same time the outlook for higher prices is very promising. Our competitors in the foreign market will not be able to furnish their usual supplies this season, and western Europe, on account of a short crop, needs to buy more wheat than usual. There is a good market for our large surplus, and the ready cash it will bring distributed among the farmers will be a powerful aid in the improvement of general business.

WITH THE VANGUARD

PRESIDENT CHARLES K. ADAMS, of the University of Wisconsin, recently gave a baccalaureate address on the subject "The Present Obligations of the Scholar." In this address Dr. Adams sketched the progress of education, and showed the growing relationship between the scholar and the cause of good government. From history he drew proofs of his argument that the controlling considerations in the establishment of the more advanced forms of civil government were presented and urged by men almost without exception college-bred.

Concluding his address Dr. Adams said:

"The settlement of the currency, the question of revenue, the relations of the rich and the poor, the legitimate power of corporations, the adjustment of taxes, the government of cities—these are indeed mighty ques-

FARM AND FIRESIDE

PUBLISHED BY

MAST, CROWELL & KIRKPATRICK.

OFFICES:

108 Times Building, New York City. Springfield, Ohio. 1643 Monadnock Block, Chicago, Illinois.

Subscriptions and all business letters may be addressed to "FARM AND FIRESIDE," at either one of the above-mentioned offices; letters for the Editor should be marked EDITOR.

TERMS OF SUBSCRIPTION:

One Year - (24 Numbers) - 50 Cents.
Six Months - (12 Numbers) - 30 Cents.

The above rates include the payment of postage by us. All subscriptions commence with the issue on press when order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and family journals are issued.

Payment, when sent by mail, should be made in Express or Post-office Money-orders, Bank Checks or Drafts. WHEN NEITHER OF THESE CAN BE PROCURED, send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. DO NOT SEND CHECKS ON BANKS IN SMALL TOWNS.

Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelop and get lost.

Postage-stamps will be received in payment for subscriptions in sums less than one dollar, if for every 25 cents in stamps you add one-cent stamp extra, because we must sell postage-stamps at a loss.

The date on the "yellow label" shows the time to which each subscriber has paid. Thus: 1Jan98, means that the subscription is paid up to January 1, 1898; 15Feb98, to February 15, 1898, and so on.

When money is received, the date will be changed within four weeks, which will answer for a receipt.

When renewing your subscription, do not fail to say it is a renewal. If all our subscribers will do this, a great deal of trouble will be avoided. Also give your name and initials just as now on the yellow address label; don't change it to some other member of the family; if the paper is now coming in your wife's name, sign her name, just as it is on label, to your letter of renewal. Always name your post-office.

The Advertisers in This Paper.

We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it. Always mention this paper when answering advertisements, as advertisers often have different things advertised in several papers.

NOTES ON RURAL AFFAIRS.

Director Jordan, of the Geneva, N. Y., experiment station, deserves great credit for his efforts in popularizing the station bulletins. Nine or ten of the "popular editions" have already appeared, and they are readable and can be understood by the great mass of the farmers for whom they are intended. They are free from technical phrases and expressions, and from all purely scientific explanations which have no practical bearing or application. All of these bulletins are short and made up of short paragraphs, with well-pointed headings in black-faced type inserted in the margin. The whole text is brief, plain, and yet the way of presentation not quite as story-like as I had hoped or fixed in my mind as my ideal. I fear, however, that this ideal will never be reached, simply because to bring it up to this standard would require not only the practical knowledge of the expert, but also the pen of the renowned and high-paid novel-writer. We will have to be contented with what is within reach, and I can only hope that other stations—and the Department, in Washington, too—will follow where Geneva station so skillfully leads.

"Spraying for the plum and cherry leaf-spot." is the subject of the popular edition of Bulletin No. 117. The subject is timely. Just at present we have promise of a great plum crop. But former years have proven to me that there is "many a slip betwixt cup and lip." A few years ago I had just as much prospect of a big plum crop as this year, and yet did not get a perfect ripe plum. Leaf-spot denuded the trees of their foliage, so that the load of plums hung on the otherwise bare limbs and twigs, and, of course, the fruit failed to get ripe. This year I shall not allow a repetition of that occurrence. Spraying will do the business. The conclusions in popular Bulletin No. 117 are as follows: "The plum-grower who is awake to his interests should give to each of his

trees, about ten days after the blossoms fall, a thorough spraying with weak Bordeaux mixture, and repeat the application three weeks later. If this is well done, and the leaf-spot is not especially prevalent, a growth of vigorous, healthy foliage will protect and nourish alike both fruit and tree. An increased yield will be the grower's immediate gain; and the stronger well-ripened, more-resistant wood of his trees will add to his confidence when the trying winter season pinches the tender shoots of disease-denuded orchards."

The Plum-rot. Plum-rot is another enemy that has repeatedly cheated me out of my crops of plums and cherries. The same means that will keep the leaf-spot in check will undoubtedly do the same service to the plum-rot. I quote the following from the same bulletin:

"While the disease primarily affects the leaves, preventive treatment influenced the fruit, very decidedly increasing the size and preventing much of the premature dropping and consequent decrease in yield. The vigor of the foliage on the sprayed trees also retarded the date of maturity of the fruit; with late varieties later fruit usually means better prices, so the gain in yield is not the full measure of the increased receipts. The sprayed trees of the Italian prune gave an average gain in yield to the tree of forty-five per cent by weight over the unsprayed trees. The cost of this gain, including the actual outlay for spraying and the extra cost for picking, packing and marketing the increased crop, was less than one cent a pound."

The Bordeaux Mixture. The station confidently recommends the one to eleven Bordeaux mixture as being equal, if not superior, in fungicidal power to the eau-celeste soap mixture and sure not to burn the foliage. To make this mixture, add to one pound of copper sulphate dissolved in eight gallons of water a solution of freshly slaked lime, and stir thoroughly. Sufficient of the lime solution, says the station, should be added to prevent any color reaction when the mixture is tested with potassium ferrocyanide (yellow prussiate of potassium). About two thirds of a pound of lime will be required. Dilute the entire mixture to eleven gallons. I have usually resorted to the ferrocyanide test; but it may be simpler to test the mixture with a piece of litmus-paper. It may be dipped into the clear liquid which is at the top when the mixture has stood awhile. If the paper shows a red or pink color, more lime must be added, until the blue color of the litmus paper shows a slight alkaline reaction. As to the proportions, where only small quantities of Bordeaux mixture are required, I think the best formula, because most easily remembered—and as good as any other—is one pound of copper sulphate, one pound of lime, ten gallons of water.

Growing Cucumber Pickles. Our pickle industry just at present is in a bad way. The vines, which formerly used to grow vigorously and bear abundantly until frost, now give us a few pickles, and then wilt and die. The trouble is the wilt-disease, or downy-mildew. This disease affects other vines, especially melons, with equally fatal results. Bulletin No. 119 of the Geneva station treats on this subject. Spraying with Bordeaux mixture of the following strength, six pounds of copper sulphate, about four pounds of fresh lime and fifty gallons of water, is recommended. The bulletin concludes that "in Bordeaux mixture the grower has a convenient, inexpensive and certain preventive of the downy-mildew of late cucumbers, and that if he will apply the remedy early, constantly and thoroughly the pickle crop will again yield profitable returns. Let us hope that this is true. I am going to put it to a thorough test this year.

The Best Gooseberries. The New York station, in popular edition of Bulletin No. 114, speaks of the best varieties of gooseberries, and how to grow them. Mr. Hall sums up the merits of the gooseberry as a fruit for the home garden as follows: "It will grow well on a great variety of soils, and in climates too severe and seasons too short for grapes; it has no enemies that cannot

be easily avoided or combated; many varieties give excellent yields; and the fruit can be used and marketed either green or ripe, is easily handled and is of characteristic, pleasant tartness, which makes it, green, ripe or preserved, a very desirable addition to the housewife's list of relishes." To all of this I cheerfully subscribe. I like the fruit. The question is what varieties to select. I have a number of large foreign sorts, which, when planted in half shade and well fed and mulched, do very well. But no variety that I know of seems to possess the thrift, the vigor, the productiveness and freedom from disease that is the inheritance of the Columbus. This is really a wonderful plant, and I shall not care to set many plants of other varieties hereafter. The wood growth under high culture is immense. The leaf is large, thick, glossy, and the fruit very large. I believe I can grow a thousand layer plants this year from a dozen old bushes.

T. GREINER.

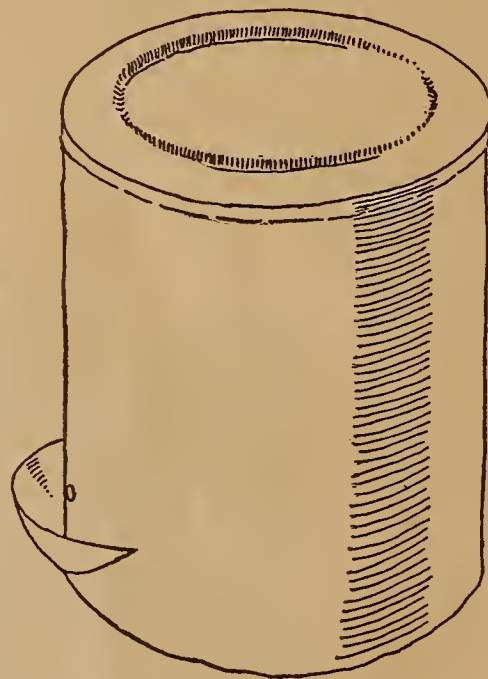
SALIENT FARM NOTES.

"I make my work about forty per cent easier by doing one job going and another coming," said Mr. H, who is one of the best farmers in his section.

"When I go down to the barn I take a pail of slop, the ashes from the stove or anything needing to go in that direction. In returning I bring back the pails, together with a few cobs and other stuff for kindling fires in the morning. I keep my mind on my work while I am at it, especially while doing the chores, and try to avoid all unnecessary steps by working both ways. And I train my boys and hired men to do the same.

"Every tool is returned to its place the moment we have done with it, and that place is nearest to the work we use it in. A farmer has steps enough to take at the best, and every step saved is just that much time and labor saved. Near the kitchen door is a place where everything that goes to the barn or stock-yards is put, and whenever any one goes down he takes along whatever may be found therein. At the barn we have a spot where everything that goes to the house is placed, and the first one going takes it along.

"Our horses, cows and pigs are watered from the same well, and that well is near the gate leading from the yard to the



pasture. When I let the cows out in the morning I am close by the well, and I fill all three troughs. When we come in from the field at noon one fills the troughs while the others feed the teams. There are hundreds of ways by which the work on a farm, and especially about the barn-yard, can be expedited and made easier if we will only study them out, and then keep our wits about us while we are at work."

Of all the insect pests that have spread over this land within the past quarter century the horn-fly is one of the worst. It is on hand early in the season, long before the common black fly appears, and from the time of its advent until the close of the season cattle have but little peace. A chilly spell, such as we often have in summer, stops the annoyances of the black fly at once, but not of the horn-fly. Cool weather only increases its persistency. It will follow a cow into a dark stable, and when brushed off will return in a moment. It is tough and not easily crushed or erippled, and altogether it is one of the meanest pests the farmer has to contend with.

The only way by which I am enabled to milk with any degree of peace and comfort while this pest and the black fly are about is to cover the cow from head to tail with gunny-cloth. Any sort of light gunny-sacking makes a good cover to protect the animal while being milked. It should be large enough to cover her from head to tail, and to reach nearly to the ground at the sides. The milker may get under it if he wishes. When a cow has a cover thrown over her she seems to enjoy the protection it affords so well that she scarcely moves even her tail. I would not be without such a cover while these fly pests are about if I had to use a bed-sheet. Enough gunny-sacking to make a good cover will cost ten to fifteen cents. Get the lightest obtainable. It is quite as effective as the heavy, while in hot weather it is much cooler.

The farmers' annual battle with weeds is now on. Not only are they springing up among the growing crops, but in the pastures, along the fences and sides of the public roads as well. It is usually considered the duty of the road officers to cut those growing on the highway, but not often is it done until the seed is ripe enough to be at its best. If the road is so constructed that a mower can be used on it, the farmer will find that it will pay him well to run out some morning and lay the weeds low. It can be done in a very short time, and it will not only destroy the billions of seeds that would otherwise be scattered over his farm, but it will also improve the appearance of the highway adjoining his farm sufficient to pay for the work.

Unless one cultivates the land close up to the fences, it will pay to leave a strip just wide enough for the mower to pass along. Then the weeds that spring up can be easily cut down at any time. It will pay well to run over the pastures if weeds are very abundant, having the mower set to cut three or four inches high. I am well aware that this is not done on many farms, but it pays nevertheless, as all who have tried it will readily admit.

I must tell the readers of FARM AND FIRESIDE how I provided my young chicks with water this season. Heretofore I have used small cans, pans and cups, but none of them proved very satisfactory, as the cups were frequently tipped over, while water in shallow pans is quickly soiled.

I take a quart fruit-can and punch a half-inch hole in one side one half inch above the bottom. Under and around this I solder on a hopper, or trough, something like the spout on a coffee-pot, only wider and shallower. The upper edge of this trough should be one half inch higher than the top of the hole in the can. Now the can-lid is soldered on tight. To fill this little tank, or fountain, sink it in a bucket of water, with the hole up. When full, set it beside the coop where your chicks are, and they will have water as long as there is any in the can, for it will run into the hopper, or trough, only as fast as they drink it out. One filling will provide water for a hen and chicks two to four days, and save lots of work, while the water will always be clean.

These little fountains cost me five cents apiece at the tinshop, and if given two coats of white-lead paint, will last ten years or more. For grown fowls they should be made of galvanized iron, and large enough to hold one or two gallons. After using these tanks a week one would not be without them if they cost three or four times as much as they do.

FRED GRUNDY.

BUSINESS CONDITIONS ARE ENCOURAGING.

Dun's "Review" says: "There is no backward step in business, although the season of midsummer quiet is near. Improvement continues gradual and prudently cautious as before, although in many branches evident where no signs appeared of it a few weeks ago. It is encouraging that crop prospects still grow brighter, that the industries meet a gradually increasing demand for products, that labor questions which had a threatening aspect have been adjusted, that the treasury maintains its ample strength notwithstanding some exports of gold brought about by premiums paid on behalf of foreign governments. The main factor at this time is the steadily brightening prospect for crops."

Our Farm.

FARM THEORY AND PRACTICE.

FIGHTING WEEDS.—It is beyond question that farmers in many sections are losing ground in their fight with weeds. The land is owned by us, and all possible income from the land is needed, but weeds cut it down, and in some instances are the actual masters of the situation. If a thoughtful FARM AND FIRESIDE reader should have the privilege of riding over the network of Ohio railroads in this latter part of the month of June, he would be amazed at the fearful loss of income to farmers due to the prevalence of whitetop in the meadows. There is very little clean hay in the entire state, if one may depend upon the reports of the state, of private individuals who travel extensively and of correspondents. Tens of thousands of acres of good land are helping neither their owners nor themselves. Man was given "dominion," but he seems to have lost it. In a limited amount of travel I have seen hundreds of acres that could have been cleaned with a sharp scythe at the right time, and a profitable crop of hay would have been obtained. Other hundreds of acres should have been broken for a spring crop, or else for a manurial crop that would have put the soil in the best heart for a cash crop next year.

WATCHING FOR WEEDS.—I know that it is easy to criticize, but my kindly criticism is from the standpoint of one who speaks from the most practical experience. It is squarely a question of income. The weeds must not be permitted to rob land of a year's income. Whitetop is a biennial, starting the summer before it does its chief damage. It should be watched for. Last fall I saw that one field was literally full of tiny plants of this pest, although there was a good show of clover also. It was apparent that the weeds would be on top this year, and consequently the young clover was sacrificed, the ground being broken for fall grain. In other fields it seemed possible to clean the weeds out, so that clover and timothy could do their best. It was business to examine closely last fall and know just how much plantain, whitetop and other filth was present to do mischief the coming summer, and we cannot afford negligence in this matter. In the event that there is more filth than we counted upon, the best thing is to turn it under in the spring. As farmers we cannot afford this large area of land that is reseeding itself with foul weeds, and that is neither bringing in any money nor gaining materially in fertility. Our work is to gain mastery so far as this is practicable.

THE OX-EYE DAISY.—The daisy has ruined an immense area of pasturage and meadows in eastern states, and is spreading through eastern Ohio at a rapid rate. Unless something is done soon the damage will be irreparable. In the broken sections of the state, especially the unglaciated portion lying within fifty miles of the Ohio river, a partial abandonment of live stock in the last few years, due to low prices of wool and beef, has led to neglect of the pastures, and some counties are being overrun with weed pests. Prickly-lettuce is spreading, and other noxious weeds are increasing their foothold. This carelessness is not confined by any means to eastern Ohio, but is characteristic of our state, of Pennsylvania, West Virginia and Kentucky. In the interest of those who are trying to keep all their land under control, and in the interest of those who are careless in the matter and lose money by neglecting the weed pests, the Ohio legislature passed a law in 1893 that should have the moral support of every farmer. I call the country reader's attention to that part which is most vital to his interests.

THE STATE WEED LAW.—"The trustees of any township of this state, upon information in writing that Canada or common thistles, ox-eye daisy, wild parsnip, sweet clover, wild carrots, teasels, burdock or cockle-burrs are growing on any lands in their township, and are about to spread or mature seed, between the first day of June and the fifteenth day of October of each year, said trustees shall

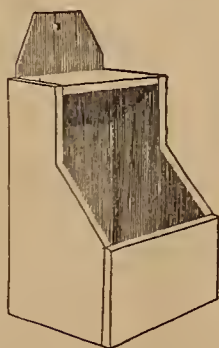
cause notice in writing to be served upon the owner, lessee or agent or tenant having charge of any such land, notifying such owner, lessee, agent or tenant that Canada or common thistles or other noxious weeds mentioned in this section are growing on such lands, and that such Canada thistles or other noxious weeds shall be cut and destroyed within five days after the service of such notice; and in default thereof that said township trustees will enter upon such land and cut and destroy such Canada or common thistles or other noxious weeds; and that the cost of cutting such Canada or common thistles or other noxious weeds, with the cost of such notice, will become a lien against such land. If any owner, lessee, agent or tenant having charge of such lands shall fail to comply with such notice, the township trustees shall cause such Canada or common thistles or other noxious weeds to be cut and destroyed, and may employ any person to perform such labor, and allow such person fifteen cents an hour for the time occupied in performing such labor." The whole expense, including fees of officers, is entered upon the tax duplicate and collected as other taxes.

OTHER PROVISIONS.—At stated times during the summer it is the duty of road supervisors to cut all bushes, briars and noxious weeds along the roadside, or to allow pay to the landowners for doing this work. Any official who fails to comply with the provisions of this law is liable to a fine of fifty dollars. A careful reading of the extract given shows that the provisions are rigid, and it may be possible that in some counties these weeds have obtained such a foothold that thorough enforcement would be a hardship without due notice, so that the worst fields might be put under cultivation in the spring, but it is clear that the mass of farmers will suffer great loss in the near future if there is not faithful enforcement of our weed law. Other states have similar laws, I think, and we should stand for their enforcement everywhere for the sake of future income. If we do this, and also plan to keep our fields from ripening big crops of seed of our common weeds, we can make it possible to get a greater gross income from our farms with less expenditure of labor. There has been gross carelessness in the past, and our loss therefrom grows greater annually. Public sentiment should demand that officials do their duty in respect to all noxious weeds.

DAVID.

THE HANDY NAIL-BOX.

The accompanying cut shows a very handy nail-box. It can be made single, as shown in the cut, or with divisions for different sizes of nails. It can be hung up by the hole in the extension, or a nail can be driven through the hole to keep it from sliding off the roof when shingling. Fill it with nails in the position shown, and tip it over on the back, and the nails will spread out thinly so they can be picked up easily without pricking the fingers.



This tipping over is a decided advantage where two or more sizes of nails are put into the box together, for one is enabled to see at a glance just what he wants, and the nails being thinly spread are easily picked up.

It should be made of half-inch stuff of a size corresponding to the size of nails and work to be done.

R. W. J. STEWART.

WHAT SHALL WE DRINK?

The desire for something to drink that is pleasant, cooling and refreshing reaches the climax during hot, sultry weather, and the question arises, What shall we drink? To be sure, water is good, very good, and perhaps we need not look for anything better; but, after all, humanity does not seem to be satisfied with it. According to an old legend, even Noah, after he came out of the ark, was not satisfied with it. After so many sinful men and beasts had drowned in it he thought water not as palatable as in former days, and he asked

for something better, and got the grape-juice directly from the Garden of Eden, from the fruit of which he made a drink that evidently suited him much better than the water.

Statistics tell us of the enormous amount of alcoholic drinks the American people consume yearly. It pains me to think of this. I am not favorably inclined toward the use of intoxicating drinks. I have good reason to believe that there are not many of our women who would not much rather see their husbands, their brothers or their boys wade into their preserves than go to the cider-barrel or beer-keg; and I want to whisper into their ears now, if they will make a sacrifice of their carefully guarded, and many times stingily withheld fruits, and make the same into syrups to have ready to season the otherwise good water when occasion calls for, they may often prevent their beloved companions and friends from indulging in that which proves so many times harmful, not only to the ones who drink it, but also to others.

Nearly all fruits may be made into syrups for the purpose by the use of plenty of sugar; but generally berries are best adapted. Even the black currant may be turned to good account for this purpose. I remember quite a number of years ago, when I had several large black-currant bushes in my garden, making a quantity of black-currant syrup. Well, it pleased everybody who tasted of it, the peculiar flavor and repulsive odor having disappeared in the process.

Raspberries, blackberries, red currants, sour cherries, grapes, huckleberries and perhaps many other fruits answer our purpose very nicely. Any fruit liquids left after canning may be turned to good account for flavoring drinking-water during the hot summer days.

F. GREINER.

MEETING LOW PRICES.

Another illustration of the soundness of the argument used by the agricultural press generally in favor of better assorting and packing of fruits and other products of the farm recently came under my observation, and is well worth the consideration of all growers of farm products.

The price this year for strawberries and early vegetables has been very low in New York City. This has been especially the case with radishes—the hotbed crop sold as low as four bunches for five cents retail, so that by the time the crop from the open ground was ready to put on the market the price offered the grower did not pay for digging them. As a consequence many acres of them were plowed under.

Strawberries started at five and one half cents a quart box wholesale, and by the middle of June were almost a glut on the market at one dollar a crate of thirty-two quarts. It is, of course, understood that this price is for unassorted fruit.

A bright young farmer with a good business head started in last season to prove the truth or fallacy of the "selected specimens and attractive packing" idea. His market was a well-known summer resort, and his goods were sold from door to door direct to the consumer, thus getting the first price for his wares. He was but one of fifty or more men covering the same market in the same way, so that the reader will see that competition was good. His strawberries were exclusively Sharpless and Gandy, both varieties of good size and form. His plantations had received the best of care, and his berries were fine. He was not content, however, to market them in the old way, and so discarded all worn and berry-stained baskets. Every berry not strictly first-class was discarded, but as they were quite uniform in size, little loss resulted from this close sorting. A few strawberry-plant leaves were laid in the boxes, so that they came a little over the edge. The boxes were more than even full—they were well rounded up, and the hulls of the top layer turned downward, so that none showed. Our friend was careful, however, that the fruit was as good at the bottom as at the top. One of the "carriers" used in the field and holding four quart baskets was attractively painted white, the four well-filled boxes set therein and covered with a clean white cloth. In this way they were presented to the customer. The results of these little attentions were from two to four cents a quart more than was received by competitors who adopted the ordinary methods. Our friend carried the same idea through

all his products, and his plan of neatness and general attractiveness even to his person.

Butter was put up in pound balls and wrapped in oiled white tissue-paper. The rolls were laid side by side (none on top of others) in large, flat pans, and handled with a broad, flat spoon or shovel. He was somewhat ostentatious in handling his wares, making it very apparent that he did not consider it proper that he should take in his hands the food his customers would buy to eat. Eggs were guaranteed fresh, and if the shell was at all soiled, it was carefully cleansed. His method of handling poultry excited my admiration, and proved him to be not only a sharp trader, but a man of close observation, fully realizing the fact that people at summer resorts were able and willing to pay a good price for daintily attractive edibles, and fully appreciated their attractiveness.

The poultry had been carefully killed, plucked and dressed. The heads were removed, and the neck cut back so that the skin could be drawn over an inch or so, and tied, which was done with a piece of narrow blue ribbon. The feet had been carefully washed, and the legs were tied together with the blue ribbon. As I have said, the fowls were dressed, which was not the usual way of putting poultry on this market; but our friend always made it a point when offering his attractive chickens to dwell on the advantages of dressed poultry, not only from the standpoint of cleanliness, but healthfulness. He always received several cents a pound more for his poultry than other dealers—enough more to pay him well for the loss in weight by the removal of head and entrails and for the care taken in making them attractive. Each fowl is carefully wrapped in a clean white cloth, and so displayed to the customer, the vender being careful not to touch the bird itself with his hands. Our friend has already earned a reputation for the quality of his goods, the cleanliness of his wares, his wagon, his packages and himself. Occasionally he runs across a prospective customer who objects to his prices, and especially on poultry, but his description of the evils resulting from eating poultry from which the entrails are not removed until they are prepared for cooking is usually sufficient to make a convert to dressed poultry at once. He tells me that he now has regular customers who take all he has to sell, and are anxious to get it. He also says that he expects to supply many of his customers with home-preserved and canned fruits this fall (his wife is somewhat of an expert in this line).

I am aware that some reader will perhaps think that it does not pay to go to all this trouble or that there are not enough particular customers to warrant it, but this is just where a mistake is made, and if you are a shipper to a large city market, the chances are eight in ten that your commission man will do just what we advise you to do.

I know more than one commission man in New York who makes a business of assorting the produce sent him by growers when it is not up to the mark. Eggs which are reasonably sure to be fresh are wiped clean and packed in neat boxes holding a dozen eggs; brown and white eggs are not mixed in the same box. Butter of good quality sent in pound or two-pound rolls or balls are smoothed over, a fancy stamp pressed on and wrapped in tissue-paper bearing the imprint "Derrington Dairy," or some other fanciful name. Small fruits are assorted and repacked, apples are closely assorted, the selected ones wiped and rubbed until they shine, and are sold as "fancy." A dozen other little things are done to make the commodity more attractive. The result is quicker sales at increased prices, which goes into the pockets of the commission man, when it ought to go into the pockets of the producer, and would if he would do the things suggested before shipping.

No one familiar with markets questions the overproduction of many products of the farm, but few will say that there is a glut in the market of selected products attractively presented to the consumer.

To-day berries from the field sold from the baskets into which they had been picked from the plants are offered in New York markets at a price which hardly pays for the picking and handling, yet selected fruit attractively packed is bringing at retail as high as fourteen cents a quart box.

Our subject is worthy of consideration, is it not?
BARTON HALL.

Our Farm.

THE "THISTLE" MILKING-MACHINE.

SOME time ago a Scotch milking-machine was placed in the dairy of the Northern Hospital for the Insane, at Kankakee, Ill., a state institution, and since then it has been given a thorough trial. Dr. Gapen, the superintendent, pronounces it a very successful affair, and in order to demonstrate the fact to the public he gave a practical exhibition of its workings to a number of invited dairymen the other day. The machine is the property of a company in Scotland, and is not as yet for sale in this country; but if the other points in the question are successfully proven, that no injurious effects are noticed in the cows or the process of keeping the tubes, etc., clean is not difficult, then it will not be long before a public demand will find then on sale by a special agency or supply firms.

The principle upon which the milking is done is as follows: On the first floor of the cow-barn are the pump and the vacuum tank. The former is worked by steam procured from the pasteurizing plant. The pump exhausts the air from the tank, the suction from there passing through a reducing-valve that gives a constant suction of several pounds in the piping running horizontally above the cows' heads throughout the stable. For every two cows a stop-cock is fixed in the piping, to which is attached a little box, in size and looks much like a telephone transmitter, which is called a pulsator. Within that box is the key to the whole mechanism, the modus operandi of milking by machinery. The little transmitter (for such it really is) contains the mechanism which produces the rise and fall in the vacuum, or suction, in the teat-cups. When the suction is least the teat-cup is circular in form, as shown in No. 1. As the suction increases the cup begins to collapse at the top, compressing the teat at the bottom, as shown in No. 2. The still further increase of the suction collapses the cup, with a stripping action from the root to the tip. The air is then admitted to partially destroy the vacuum, allowing the cup to resume its original shape. This action is repeated forty-five times a minute, and it comes as near the action of the sucking calf as can be done. Every time that the suction is reduced and the cup takes its original form, it allows the milk to flow down and fill the teat, the next compression forcing out the milk. The milk flows through a short piece of India-rubber tubing into a glass milk-trap set in the top of the milk-receiver. The trap being of glass, the flow of the milk can be observed and the suction may be withdrawn as soon

men were engaged in milking a kicking heifer, and she stood the artificial method of doing business without causing any trouble.

The artificial hands are made of good quality rubber, and are called pulsating teat-cups, being slightly corrugated on the interior. The four teats may be milked single or collectively.

Dr. Gapen is quite enthusiastic over the machine, as were all others who saw it in operation. After one or two trials the cows are said to take to it naturally, and the sight of ten cows being mechanically milked and without any apparent force is an inspiring one, and is calculated to cause one to think that the inventive genius is very much alive in man. The dairy equipment of the Illinois Eastern Hospital deserves special mention as being the most elaborate and complete in the world; consisting as it does of a set of silos supplying ensilage to each of the barns.—The Dairy World.

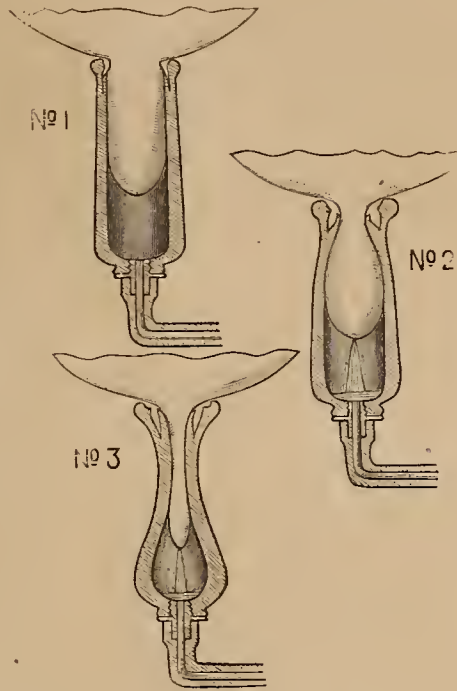
ASPARAGUS FOR HOME USE.

After the family of the rural district has been confined all winter to the usually monotonous diet of the farm, the good housewife longs for a chance to supply her table with some more wholesome and palatable products from the kitchen garden. A good asparagus-bed gratifies this desire. Next to pie-plant (rhubarb) asparagus is the first vegetable nature produces, besides it is one of the most delicious, is very healthy and easy to produce. The different methods of preparing it for the table enables the head of the household to offer acceptable changes to the members of her family. Every farmer's family is deprived of one of nature's great blessings if the garden is lacking and has no asparagus-bed. It can be had with very little trouble after it is once started. The work of keeping it in producing condition is comparatively a mere trifle, provided this trifle is done in time; but if neglected, it requires a great deal more and harder work to restore it to its proper condition than it takes to keep it from getting the start of us in the first place. Once, when bringing in a mess of freshly cut asparagus from the garden, a neighbor's wife made this remark:

"It is strange; we have an asparagus-bed, too, but never have any asparagus."

An investigation revealed the fact that the bed here mentioned had never received any attention after it had been planted. It was as hard as the road-bed and well grassed over. No wonder they never had any asparagus. We cannot expect to produce asparagus under such treatment any more than we can expect a potato crop, if we never go near the field after it is planted until digging-time.

injure the asparagus roots, with which the bed is interwoven at that depth. Especial care must be taken when spading right over the crowns of the plants. They are somewhat near the surface of the soil, and easily reached with the fork and ruptured. But these places can be plainly noticed by the dead stubs of last season's growth. Every time a mess of asparagus is cut and signs of vegetation are noticed, the garden-rake is drawn over the bed the whole length and touching every spot. This stirs the ground, and ends all vegetable life for the time being. After we stop cutting, this raking process is kept up more or less all summer, and I would say right here,



that the better care we take of our bed this summer, the easier work it will be to keep it in proper shape next season.

In the fall, or when the bed is to be covered again with the usual fertilizer, all growth of stocks is cleaned off; but the seed-stocks should be removed before the seeds drop, as they are as bad as any weeds if suffered to grow.

G. C. GREINER.

PICKING AND MARKETING FRUIT.

To secure fruit for market at the proper stage of ripeness, and the least possible waste of time as well as fruit, is a matter of much importance to a fruit-grower. Each grower has, or at least ought to have, a system by which he may expedite the work, and it is a question to many whether their system is the best or not. The method I use is slightly different from any I have ever seen, and there may be some useful suggestions in it to some.

I find the most trying part of the fruit harvest is to properly manage a lot of boys and girls while they are gathering the fruit; to see that the ripe fruit it all gathered and not mused in picking; that there is no deception practised in filling the boxes, which I am sorry to say often happens, and to tally and check the quarts picked by each person.

To begin with, I have each row of berries numbered, and also each crate; then when a row and crate is assigned to a picker, each is entered into the check-book opposite that picker's name. When inspecting the vines where the pickers have passed over, should any carelessness be noticed, a glance at the check-book will show to whom it is due; and likewise when inspecting the crates of berries, for as fast as a picker fills a crate, an empty one is assigned him and the filled one examined. If the berries should be crushed, boxes not filled or any other fault, it is only a moment's notice to discover the culprit.

The failings, or errors, if such they may be called, are charged against the guilty person, and by this record I am able to cull out the undesirable pickers, should they persist in their misdemeanors when subsequently cautioned.

I manage as much as possible to engage my pickers for the whole season, and so I give tickets at the end of each picking, to be cashed at the end of the fruiting season, or at the end of the week if demanded. By paying a small premium at the end of the season to those who remain through the "poor pickings," which often occur at the last, I am able to retain the most of my good pickers.

A record is kept in the check-book of the number of quarts picked by each person, so there can be no mistake made when settling with them.

B. A. WOOD.

EXTRACTS FROM CORRESPONDENCE.

FROM ILLINOIS.—Hancock county is a beautiful farming country. Wheat is looking fine. Oats are thin this year, and about one half of them were plowed up, and the ground planted in corn, which is growing nicely, although a little late. This is a fine country for fruit-growers. There will be no peaches this year, but plenty of other fruit. Timothy and clover look fine. This is also a good cattle country, and a good place for sheep and hogs. The land here rents too high for a poor man to make much money. It rents for \$3 to \$5 an acre. This county possesses an abundance of timber. Sawmills are running the year round, and some black walnut logs are shipped from here. Timber land is worth about \$40, and prairie land for \$60 to \$80 an acre.

La Harpe, Ill.

J. F. K.

FROM OKLAHOMA.—There are hundreds of good farms in D county, Oklahoma, unoccupied. I have been farming here five years, and good crops have been the rule in that time. Fall wheat, Kafir-corn, sweet potatoes, sorghum, peanuts and watermelons are as sure to make a crop here as in any state in the Union. These crops seem to be especially adapted to the soil and climate. Peaches, grapes and plums seem to be sure of success in growing, and the fruit is of choice quality. Poor people have nothing but toll before them wherever they are located, but those in the thickly settled eastern states who depend upon working out or working other people's land can make a living by their labor here just as well as anywhere, and secure and build up a beautiful home of their own, and after a time be independent. I have lived in New York, Indiana, Illinois, Wisconsin, Nebraska, Kansas, Washington, California and Oklahoma, and this is the most healthful and pleasant climate the year through I have ever lived in.

N. B. V.

Hackberry, Oklahoma.

FROM OREGON.—One may travel the wide world over and find but few places of equal extent so full of natural wonders and beauties of nature as Klamath county, Oregon. The lakes and meadows, mountain forests and canons deserve more space than is possible to allot to them in an article of this kind. The queen of western lakes is the Upper Klamath, which nestles in the thundered spurs of the lofty Cascades, one of which—Mount Pitt—reaches the altitude of the eternal snows. Looking westward from the summit of this mountain, we can gaze far away on the blue waters of the Pacific, over one hundred miles away. To the east one may gaze far away into Idaho and Nevada. Crater lake, which lies to the north of Upper Klamath, is one of nature's most stupendous productions, to which neither pen nor brush can do justice. It is situated on the summit of a mighty mountain, and, as its name implies, is the crater of an extinct volcano. Its perpendicular walls of rock, rising nearly two thousand feet above the level of the water, furnish but one place in the circuit of fifty-five miles where man may descend to the lake. It is the deepest known body of fresh water on the American continent, and second to but one in the world. Anna creek, from the foot of Crater Lake mountain, rises from one spring, and flows away. Castle creek flows from the same mountain to the west through a similar gorge, whose banks are lined with mighty castles of rock, and finally adds its water to the ever restless Rogue river. In our land one finds springs of boiling water, while almost within arm's reach we find another but a few degrees above the freezing-point; rivers rising as if by magic from the lower depths of earth; springs so large that they are used for landings of the steamboats; mountains covered with stately pines and scrubby junipers; valleys in which the fields of grain wave in the gentle breeze like a golden sea; sheer precipices of a thousand feet, and mighty cataracts. Why should the hunter of nature's beauties and wonders travel thousands of miles across the rolling deep to find that for which his soul yearns when we have the grandest, the noblest scenery at our very door?

J. F. W.

Lorella, Oregon.

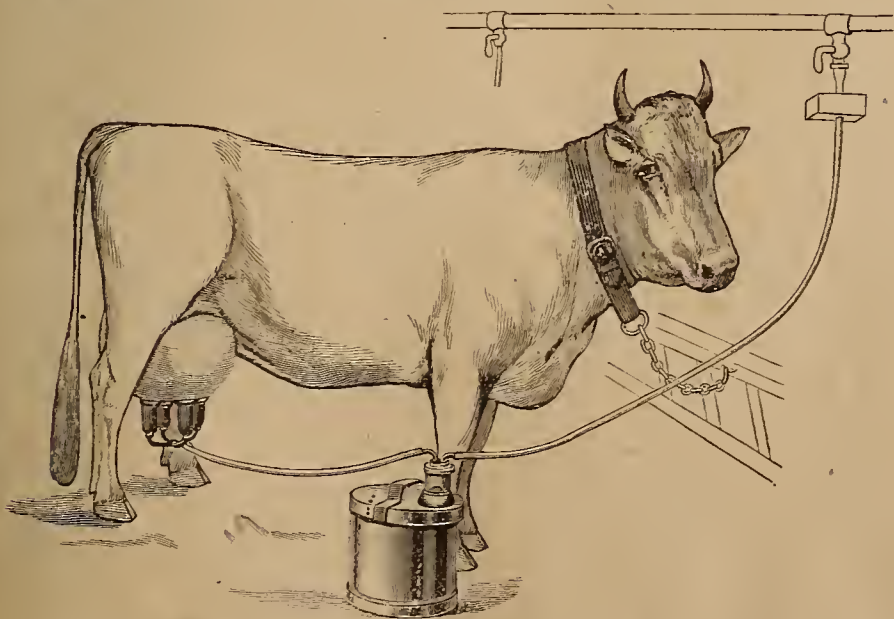
Can't Sleep,

Because the nerves are weak and easily excited and the body is in a feverish and unhealthy condition. Nerves are fed and nourished by pure, rich blood. Hood's Sarsaparilla gives sweet, refreshing sleep because it purifies and enriches the blood and builds up the system.

Hood's Sarsaparilla

Is the best—in fact the One True Blood Purifier. All druggists. \$1; six for \$5. Get only Hood's.

Hood's Pills cure liver ills, easy to take, easy to operate. 25c.



as the cow is milked. The pulsator contains a small vibrating vacuum motor and the power to operate the valves in the box, and produces the pulsation. The pulsations do not extend to the milk-pail, as the end of the milk-trap that projects into the pail has a rubber ball which acts as a valve and prevents the pulsations to descend below into the bucket.

One man with six sets of milkers can milk fifty cows an hour; a horse on an ordinary tread-power can, with two men to attend, and twelve sets of milkers, milk one hundred cows an hour. The pails or cans are air-tight, and thus exclude the foul air, hair, filth, etc. There are ten sets of the apparatus at the hospital, and the men in charge of the barns think the invention is a valuable one.

During the public test in question the

The bed in my garden is about sixty feet long and three feet wide. It has just one row of plants set through the middle from two and one half feet to three feet apart. It is now five years old, and furnishes a good mess for a family of five or six every two or three days. My way of keeping it in good, easy-working and producing condition is very simple, and the work spent is a paying investment. In the fall or winter, whenever a sufficient quantity of fine horse manure is available, I give it a light dressing of the same. As soon as the ground can be worked in the spring the bed is spaded up and the manure turned under. I use for this work a six-tine spading-fork, generally called potato-fork. If the bed has been properly started, this spading can be done eight or nine inches deep; but we have to be careful not to

Our Household.

Only a night from old to new!
 Night and the healing balm of sleep!
 Each morn is New-Year's morn come true,
 Morn of a festival to keep.
 All nights are sacred nights to make
 Confession and resolve and prayer;
 All days are sacred days to wake
 New gladness in the sunny air.
 Only a night from old to new!
 Only a sleep from night to morn!
 The new is but the old come true;
 Each sunrise sees a new year born.
 —Helen Hunt.

HOME TOPICS.

CURRANT PIE.—A most delicious currant pie is made by taking one cupful of ripe currants, one cupful of sugar and one egg; beat the egg and sugar together, stir in the currants, and bake it between two crusts. Moisten the edge of the under crust before you put the upper crust on, and press the edges tightly together, and the juice will not boil over.

Cherry pie is nice made in the same way.

POTATOES FOR BREAKFAST.—Slice some cold boiled potatoes about one fourth of an inch thick; put them into a saucepan, with two tablespoonfuls of butter, and stir them until they are all buttered, but not browned, then add four tablespoonfuls of milk, salt, pepper and a tablespoonful of chopped parsley. Let the milk boil up once, then take it from the fire, add the juice of half a lemon, stir up well, and serve at once while very hot.

ORDERLY CHILDREN.—It will save mother a great deal of work if she will teach her children to be orderly; but they will never learn this if she always puts away their toys or books which they have laying about, and when these things are wanted again they know they have only to ask mother where they are. It is better to let them suffer the inconvenience of losing their things if they will learn to take care of them in no other way. I know it is often easier at the time to pick up and put away things one's self than to call a child to do it; but we must consider the importance of orderly habits being formed, and besides, it will save ourselves many steps in the future.

"A man can never find anything," is a charge often made. This is because when a boy mother always hunted up any missing article for him, consequently now he expects his wife to do the same.

I do not mean that children must never make a litter and have their toys and playthings scattered about, but only that after they are through with their play they should clean up the litter.

Do not fret if on a rainy day the little boy covers the kitchen floor with whittlings while he is making a wonderful boat, nor if a litter of dolls' dressmaking is found on the sitting-room floor just as company is coming in, but insist that when they have finished all the litter must be picked up, the floor swept and everything put in order. Habits of neatness and order will

INFLUENCE OF COLOR.

Until our attention is directly called to the subject we all feel the influence of color, although we may not think about it. We do not always know why we have joyous emotions, but if we stop to trace their connection to the origin, nearly always we find that they are due to some simple physical cause. A great poet calls man "a creature subject to the skyey influences." This is so universally, though perhaps unconsciously, acknowledged that there has been adopted that popular expression of being "under the weather." In accordance with human ingratitude and aptness to grumble this is always applied to ill health and dull spirits when the weather has been disagreeable. When the sun shows his face and we cheer up we seldom attribute our improved state of mind to its true cause, but generally flatter ourselves that we have voluntarily gained a brighter mood by doing our duties exactly or exercising our minds

Fabrics of pleasing colors cost no more than those of depressing hues. For the walls of our rooms what is better than these combinations which nature shows in her brightest mood? Take a delicate sky blue with harmonious tracings of

tints of red, such as pink, terra-cotta and rose, are less fatiguing, and may be used more agreeably than scarlet or cardinal. A red cushion or curtain in a room may be very exhilarating, especially in winter; and truly the reason why we all enjoy



an open fire on a cold day is as much on account of its bright red and yellow lines as because of its heat. A dull black stove or an inane register will give us warmth, but they lack fire color, and therefore we ungratefully use them without affection or admiration.

If we use artistic judgment, we can manage color in our homes so that December is as pleasant as May, and summer may last all the year. Bright skies and green foliage may be caught and perpetuated in a water-color picture, and every sunbeam nature grants us may be converted into rainbows if we hang prisms in our windows.

The influence of color in dress has influence on the wearer as well as on beholders. In describing his two daughters, one of gay and the other of serious disposition, the Vicar of Wakefield said, "But I have seen them change characters for a whole day. A suit of mourning has transformed my coquette into a prude, and a new set of ribbons has given her sister more than natural vivacity." Certainly when a woman sees her reflection in the mirror a combination of cheerful tints will put her in a good humor, and a dull-robed, colorless image will make her feel old and sad. There are seasons for mourning, but they do not last always. Consider how many times the authors of the Bible tell us to "rejoice," and "again I say unto you rejoice."

Let us take advantage of that always available influence of pleasing colors—the colors which nature bestows in the skies, the trees, the fields and the flowers.

KATE KAUFFMAN.

SLEEVES, SKIRTS AND WAISTS.

Sometimes it is necessary as late as July to make up some thin dresses. Indeed, I prefer to leave something to make in the height of the season. The waists are in blouse and bolero effects. Boleros are made of lace, knife-plaited mousseline-de-soie or organdie. The blouse effect in the new Liberty silk is very soft and pretty in its effect, and more lasting than chiffon or silk muslin. Sleeves are all tight above the elbow. It is nice to line the sleeves of thin dresses with a thin silk, as the sleeve sets better. Velvet ribbon is much worn in all colors. Skirts are elaborately trimmed in braid, knife-plaitings and lace. CHRISTIE IRVING.

LATEST FAD IN PINCUSHIONS.

We have had pincushions by the dozens—square ones, round ones, heart-shaped ones, etc., etc. All these are relegated to the past, and now we are pleased



to note the dainty "bolster pincushion," which is entirely devoid of "fuss and feathers." Its simplicity is its beauty, and its beauty can adorn the handsomest dresser. The cushions required are eleven inches long and six and one half inches around. If this size cannot be secured, make one yourself out of bleached cotton, and with

ed the "trumpet color," and truly it is pleasant to have, now and then, a high, piercing note in the chorus of color; but it would not be agreeable to have an orchestra composed altogether of trumpets. We call a thing "loud" when too bright to harmonize with nature's methods. While we aim to be cheerful we should try to avoid being boisterous. Diluted

successfully. Sometimes there breaks out in song or poem a true perception of this relation between the sky and our mental firmament, as in "Wait till the clouds roll by." Scientists tell us that the reason we feel better on a clear, bright day is because the atmosphere has qualities which it lacks at gloomy times. We do not deny that, but our study is color, and you will agree that you feel better when you look at a soft blue sky than when you see one of leaden gray. Stop to think a moment, and you will find that the varying degrees of joy derived from the year's seasons depend on their color. Spring comes with a mingling of tender tints in blue, green and pink;

summer glows with intense colors; autumn brings "the sear and yellow leaf;" and winter chills us with white and gray. Over all these changes we have no control, but there are places where we can apply the lessons taught by nature; namely, in our homes and in our garments,



be learned in due time if we gently and patiently instil the principles.

MAIDA MCL.

EVERY trace of tar may be removed from cloth by saturating the spot with turpentine and rubbing it well.

the aid of a stick stuff the case with fine sawdust, remembering that close packing is a requisite to a shapely cushion.

The pincushion here illustrated is made of white satin. The design embroidered on the cushion is easily traced with your pencil.

The three fern shades in green filo are used for the leaves, the darkest shade being preferable for the vine or outlining of the circles. Forget-me-not blue is used for the forget-me-nots. One inch from either end encircle the cushion with a band of ribbon, two yards of ribbon being required for the bands and rosettes on each corner. It is very effective to embroider the forget-me-nots in yellow, violet or pink, and use ribbon the same shade of filo selected. The satin is turned in and blind-stitched under the bottom of these cushions, thus avoiding the ugly side seams. The satin covers are dainty and pretty, but for service as well as beauty a fine quality of linen is more to be desired, as these can be easily removed for the laundry.

PATTIE HANGER.

SANDWICHES.

Appetizing sandwiches are often a help to a comfortable tea party on the porch or lawn during the hot evenings when eating in the house seems so stuffy. If they are to be kept a few hours before using, they can be kept moist by being wrapped in a napkin wrung out of hot water and put in a cool place.

Butter the bread upon the loaf, and cream the butter before spreading it, then use a sharp knife and cut the slices thin. One-day-old bread is better than fresh bread. I was amused at a gentle-

boiled eggs and a few drops of vinegar to a paste, season with salt and pepper and chopped nasturtium-stems; spread upon lightly buttered slices of bread, and lay one of the flowers on before putting them together. Use lettuce-leaves the same way.

BEAN SANDWICHES.—Rub a cupful of baked beans to a paste, add one teaspoonful each of chopped parsley, celery, onion-juice and a little mixed mustard; spread between thin slices of brown bread.

If you bake your own brown bread, bake it in round fruit-cans, so as to make the slices round.

A new pan comes on purpose for sandwich bread, even defining the slices, and is very convenient to have. It is always easier and usually less expense to work with the proper tools.

Take your gasolene-stove out in the yard on a stuffy evening, and have supper under the trees—coffee, sandwiches, fruit and cake. Live simply through the heat of summer, and enjoy all the beautiful summer-time that you can.

BELLE KING.

NOVELTIES.

I take this way of answering a number of correspondents who have asked for these special things, feeling they will help some one else.

WIDOW'S CAP.—Few ladies wear caps



Featherbone should be used around the edge of the underskirt. The one we illustrate is lace-trimmed. This is optional. A rolled hem is quite as effective. Use your dress-skirt pattern, and make the under part only two and one half yards around. This can be of appaca, with silk ruffles.

SHIRT-WAISTS.—All materials are employed for these, and it is well to have one of silk or wool for cool days to be worn either with a white collar or one of the material. A white kid belt is dressy with the white collar. Make the cuffs of the material, as a small turn-over cuff can be worn also. A white one, of linen lawn, with soft cuffs, and hemstitched ruffles down the box-plait and around the cuffs, is a pretty change.

CROSS-STITCH.—The Greek key pattern is always a favorite. Used upon aprons or children's clothing in wash-silk it will outwear any other trimming.

CHRISTIE IRVING.

MEN'S FANCY SOCK.

The sock has the so-called Italian foot and manufacturer's heel. Four needles, No. 18. The knitting to be thirteen stitches to the inch. Four ounces of navy-blue or black wool and a ball of pale, straw-colored knitting-silk.

Cast on 100 stitches with wool; knit 4 1/4 inches, or 84 rounds, in a rib of knit 2, purl 2.

Eighty-fifth round—Plain.

Eighty-sixth round—Join the silk; it is used with the wool; knit 3 wool and 1 silk stitch alternately.

As you knit with wool, keep the silk over the fingers of the left hand, put the right-hand needle under the silk (as held) in knitting one stitch, then above the silk in knitting the next stitch, by which means the silk is knitted in, and there are no long loops at the back, which is very had both for wear and appearance.

Eighty-seventh round—Plain, with wool.

Eighty-eighth row—Knit 2 with wool; then 1 stitch silk, 3 stitches wool alternately. Repeat from eighty-fifth round twenty-one times.

DIVIDE FOR THE HEEL.—Take 56 stitches for the heel, knit with wool only. Knit 30 rows, a plain row and purl row alternately.

Thirty-first row—Knit 25, knit 2 together, knit 3, knit 2 together, knit the remainder.

Thirty-second row—Purl.

Repeat these two rows five more times, of course knitting one plain stitch less each row before and after the decreasing. Then divide the stitches equally, finish by grafting the one half of the stitches to the other, and the three center stitches as one, or cast off and sew the two sides together.

THE FOOT.—For the Italian foot the front is worked first, and is then sewn to the upper part; there is no difficulty in doing this with silk. Each plain row of the

leg will be purled when the upper part of the foot is knitted separately; therefore, in the purl row the silk is brought to the front of the needles, and is worked in by putting it over and under the wool every third stitch. Take the 44 stitches left for the foot, and 2 more on each side; these 2 stitches are to be worked with wool throughout. Knit until you have 54 rows of silk, then a purl row, and leave these stitches or put them on a thread.

THE UNDER PART.—With wool. Take up on the sides of the heel 76 stitches. Purl a row.

Second row—Knit.

Third row—Purl.

Fourth row—Knit the third and fourth together, and the third and fourth from the end of the row.

Repeat from the second row until you have worked 14 rows of decreasing; then in plain and purl rows alternately to the end of the one hundred and eighth row.

THE TOE.—Arrange the stitches on the three needles again, and knit a plain round.

Second round—* Knit 2 together, knit 7, repeat from *, then 7 rounds plain.

Tenth round—* Knit 2 together, knit 6, repeat from *; 6 rounds plain.

Seventeenth round—* Knit 2 together, knit 5, repeat from *; 5 rounds plain.

Twenty-third round—* Knit 2 together, knit 4, repeat from *; 4 rounds plain.

Twenty-eighth round—* Knit 2 together, knit 3, repeat from *; 3 rounds plain.

Thirty-second round—* Knit 2 together, knit 2, repeat from *; 2 rounds plain.

Thirty-fifth round—* Knit 2 together, knit 1, repeat from *.

Thirty-sixth round—Knit 2 together all around.

Break off the wool about nine inches from the knitting, run it through the stitches twice, draw them up, and fasten securely.

M. ELLIOTT.

A FEW CHOICE RECIPES.

WHITE CAKE.—

- 5 eggs, whites of,
- 1 cupful of butter,
- 3/4 cupful of milk,
- 3 1/2 cupfuls of flour,
- 2 cupfuls of sugar,
- 3 teaspoonfuls of baking-powder,
- Flavoring.

Bake in layers with icing between. B. I.

BLACKBERRY CAKE.—

- 6 eggs,
- 2 cupfuls of sugar,
- 1 1/2 cupfuls of butter,
- 3 1/2 cupfuls of flour,
- 1 cupful of blackberry preserves or jam,
- 6 tablespoonfuls of sour cream,
- 2 teaspoonfuls of soda,
- 1 1/2 nutmegs,
- 2 teaspoonfuls of all-spice,
- 2 teaspoonfuls of cinnamon.

Stir together, and put icing between layers. B. I.

GOOD SQUASH PIE.—For crust, line two yellow pie-plates with light bread shaved very thin; fill with two and one half cupfuls of stewed squash (I use Sibley or Foxon, which cook very dry), one egg, one

cupful of milk; sweeten to taste, and spice with ginger, cloves and nutmeg. Bake, well, and I think you will say it is good and wholesome. LILLIE G.

Do not forget that you can obtain a bicycle for a word. See page 19 for full particulars.



man remarking of a very dainty lunch that it was so delicious, and he enjoyed it because it seemed to have been gotten up with apparently no trouble! It took the young lady four hours to prepare what was used, and she put it away so as to be ready to give all her time to the caller when he came.

It is only the echo of many other men who think everything pertaining to getting up a good meal is so very easy. I know it is awfully easy to eat it up.

When using bread for sandwiches, remove all the crusts. They can be used afterward for breaded veal or for puddings.

OLIVE SANDWICHES.—Spread large square crackers with cream cheese, cover



with finely chopped olives mixed with mayonnaise dressing. It can be bought bottled, and saves much trouble of preparing. Lay another cracker on top of it.

NUT SANDWICHES.—Equal parts of grated cheese and chopped English walnuts mixed and seasoned with salt and a dash of coralline pepper; spread upon thin slices of bread, and cut into shapes with a fancy cake-cutter.

NASTURTIUM SANDWICHES.—Rub hard-

these days, and what is now frequently called a widow's cap means only the white ruche worn in a mourning-bonnet. These need renewing so often it is well to know how to make them. Use fine tarlatan. Double a two-inch piece the entire width; at the doubled edge run a tuck one half inch deep; then with the fingers push it up closely on a round lead-pencil, making it as crimped as possible; then gather the raw edge, and baste upon it the thin white ribbon known as seam-binding.

If a cap for house wear is wanted, make a three-cornered piece for the top of the head, and trim it with one of these ruches and milliner folds of the tarlatan, and wide-hemmed strings to hang at the sides.

KNITTED BALL.—Use brown, blue, scarlet, black and white for colors. Fine steel needles. Cast on one needle thirty stitches of the brown, knit garter, knitting back and forth for ten rows, then two rows of white, two rows of scarlet, two of black and two of white; fasten on the blue, and knit thirty rows, and use the other colors as directed between the solid colors. Make eight sections, then bind off; sew up at the side, and draw up closely at one end. Stuff with wool or cotton, and draw up the other end. Finish with ribbon bows of narrow ribbon or a close-cut pom-pom of the wool.

BABY'S BIBS.—Make these of white pique trimmed with lace. Use a dress-shield in the neck of the baby's dress to

Our Sunday Afternoon.

OUR ERRAND.

To seek his lost ones that from him are straying
Through all the earth,
With tender messages of sweet entreaty
Christ sends us forth.

From day to day, with courage unabating,
He bids us seek,
Bearing his words to his forgetful children,
Sinful and weak.

"Tell them I love them. Tell them I am
waiting,
While yet they roam;
Tell them I look with yearning and with
longing
Till they come home."

And so he waits while forth we bear his
message
From day to day:
How can we linger idly by the wayside—
How dare delay?
And they, to hear the word his mercy sends
them.

Our coming wait;
Oh, let us speed while yet the daylight
lingers,
The hour is late!
—World's Crisis.

GOD IN THE BOOK.

THE reply of a young girl to the skeptic who sought to destroy her faith was an unanswerable one. This is the story as given by a writer in the "Sunday-school Lesson Illustrator:"

She was only a fruit-seller—this girl of fourteen—and as she sat behind her neatly arranged stand she improved the time when trade was slack in reading her Bible. So absorbed did she become that she did not hear the footsteps of a man who was passing by, and was startled by his question:

"What are you reading that interests you so much?"

"The Word of God, sir," she replied.

"Who told you that the Bible is the Word of God?"

"God told me himself."

"God told you? Impossible! How did he tell you? You have never seen him or talked with him."

For a moment the girl sat confused and silent. The man, who was a skeptic, and took delight in destroying the faith of people in the Scriptures, thought he had won an easy victory. But he was mistaken. Suddenly she looked up with a flash in her dark eyes, and asked:

"Sir, who told you there is a sun yonder in the blue sky above us?"

"Who told me?" replied the man, smiling somewhat contemptuously, for he thought the girl was trying to hide her ignorance. "Who told me? The sun tells me this about itself. It warms me, and I love its light. That is telling me plain enough."

"Sir," said the girl, "you have put it right for both Bible and sun. That is the way God tells me this is his book. I read it, and it warms my heart and gives me light. I love its light, and no one but God can give such light and warmth through the pages of a book. It must be his. I don't want more telling; that's telling enough, sir. As sure as the sun is in the heaven, so sure is God shining through this book."

The skeptic was silenced. The girl's heart experience of the power of God's Word was an evidence he could not shake. —Union Gospel News.

THE SINS OF THE TONGUE.

The sins of the tongue all point to the necessity and profit of self-mastery. So evident and so important did this appear to James that it occurs again and again in his epistle. "In many things we all stumble," he writes, "If any stumble not in word, the same is a perfect man, able to bridle the whole body also." If this confession of failure and magnifying of the office of the tongue be then exaggerated, let any one sit down quietly and think of the sins and cruelties of human speech. The careless words which no repentance can call back again, the rash promises which it has cost us so much to fulfill, the expression of the lower nature which has shamed the higher, the confessions of evil and yieldings to falsehood, the hot, angry words which sober thought condemned—these are some of the perils of the tongue.—Congregationalist.

DALLYING WITH WRONG-DOING.

Test your sincerity by the manner in which you control or resist your evil thoughts. Do you suffer your thoughts to tamper with evil, to dally with wrongdoing? If so, you are not sincere. The tyrant Nero tried to degrade some of the great Roman nobles to as low a level as his own by making them appear as actors in the arena on the stage. To disobey was death. Florus was bidden thus to appear, and doubting whether to obey, consulted the virtuous and resolute Agrippinus.

"Go, by all means," answered Agrippinus.

"Well, but," replied Florus, with astonishment, "you yourself refused to obey."

"Yes," answered Agrippinus, "because I did not deliberate about it."

The categorical imperative, the naked, absolute prohibition of duty, must be implicitly, unquestioningly, instantly obeyed. To deliberate about it is to be a secret traitor; and the line which separates the secret traitor from the open rebel is thin as the spider's web.—Canon Farrar.

A BLESSED SECRET.

It is a blessed secret, this of living by the day. Any one can carry his burden, however heavy, until nightfall. Any one can do his work, however hard, for one day. Any one can live sweetly, patiently, lovingly and purely until the sun goes down. And this is all that life ever really means to us—just one little day. "Do to-day's duty; fight to-day's temptations, and do not weaken and distract yourself by looking forward to things you cannot see, and could not understand if you saw them." God gives us nights to shut down the curtain of darkness on our little days. We cannot see beyond. Short horizons make life easier, and give us one of the blessed secrets of brave, true, holy living. —Christian Work.

BOTTLING TEARS.

Tears are often mentioned in the Bible as evidences of sorrow and penitence, and the custom of bottling tears is alluded to in the fifty-sixth Psalm and eighth verse. The Persians are the only people in the world who still adhere to the old custom of bottling tears. In that country it constitutes an important part in the funeral ceremonies performed over the dead. Each of the mourners is presented with a sponge with which to mop the face and eyes, and after the burial these are taken by a priest, who squeezes the tears into bottles. Mourners' tears are believed to be the most efficacious remedy that can be supplied in several forms of Persian diseases.

AN EASY PLACE.

I received a letter from a lad asking me to find him an easy berth. To this I replied: "You cannot be an editor; do not try the law; do not think of the ministry; let alone all ships, shops and merchandise; abhor politics; don't practise medicine; be not a farmer or a mechanic; neither be a soldier or a sailor; don't work; don't study; don't think. None of these are easy. Oh, my son! You have come into a hard world. I know of only one easy place in it, and that is in the grave." —Henry Ward Beecher.

Here is a rare piece of irony and caustic sarcasm by Bishop E. R. Hendrix (M. E., South), aimed direct at those scientists who find a religion in India and China and Africa that compares favorably with the religion of the Son of God:

"How unfortunate the lands cursed by Christianity, and what would be their fate were it not for those independent souls who are not to be restrained by priestcraft, but who resolutely introduce the best literature of pagan lands and cry, 'These be your gods, O Israel! Away with Bacon and Locke and Milton and Shakspeare and Tennyson and Herschel and Faraday and Morse! Better fifty years of India than a cycle of Christian Europe! Genghis Khan and Timbuctoo forever! Release unto us Barabas; as for this Jesus, take him and crucify him! We will not have this man to reign over us! Empty your dungeons and give us any cutthroat Sepoy first! We will not have the bread of life; give us some of the fruit of the upas-tree, whose sap the natives of Africa use to poison their arrows! Take your egg; give us a scorpion! Away with your meat; give us a serpent.'"

How To Be Beautiful

Shirley Dare's book, "The Arts of Beauty," teaches how to be beautiful. It should be read by every girl and woman, especially by every mother who is raising daughters. It teaches not only what to do, but what not to do. It prescribes only such remedies and methods as are perfectly safe, and is indorsed by physicians.

Premium No. 63.



Shirley Dare is the most popular and practical writer in America on cosmetics, health and the arts of the toilet. She has made the subject her life-work, having studied under the best masters of this country and Europe. What she says in "The Arts of Beauty" regarding the care of the complexion, hair, body and health in general may be relied upon as authority.

HEADINGS OF THE CHAPTERS.

- I.—Gifts of Charming.
II.—The Secrets of Good Looks.
III.—Grace and Expression.
IV.—Bloom and Fairness.
V.—Hair, the Crowning Glory.
VI.—Training for a Fine Figure.
VII.—Women Bred for Beauty.
VIII.—The Culture of Beauty.
IX.—Toilet Elegancies.
X.—Manicuring.
XI.—Cosmetics and Lotions.
XII.—Things Inquired For.
XIII.—Defects and Annoyances.
XIV.—Different Constitutions.
XV.—Health and Dress.
XVI.—Lovable Faces.
XVII.—On Perfumes.
XVIII.—Sanitary Improvements.
XIX.—Diet for Beauty and Health.

"The Arts of Beauty" has heretofore been sold exclusively by agents, and never for less than a dollar and a half a copy. We purchased the right to print an edition of this splendid book, and in order to procure thousands of trial subscribers, we offer it at the marvelously low price named below.

This premium edition is exactly like the agents' edition except that it is not expensively bound. It contains every word found in the agents' edition. Has 256 pages. Satisfaction guaranteed or money refunded.

FOR 30 CENTS We will send this book, and Farm and Fireside for the remainder of this year, for thirty cents; or with the paper one full year, fifty cents.

Postage paid by us. Address FARM AND FIRESIDE, Springfield, Ohio.

\$5 Watch Free...

FOR A CLUB OF 20 REMAINDER-OF-THIS-YEAR SUBSCRIBERS TO FARM AND FIRESIDE.

The subscribers may accept any offer in THIS issue only.

In this case the club raiser will be entitled to 20 guesses in the Missing Word Contest, and each member of the club will be entitled to a guess. See page 19.

This watch is made and fully warranted by one of the oldest and best watch-factories in America. We guarantee it to be a genuine, reliable and satisfactory watch in every particular or money refunded.



Price of Watch and Chain With Paper \$2.50

Prem. No. 75.

STEM-WIND AND STEM-SET

The standard seven-jeweled movement in this watch is a most durable and accurate timekeeper. For all practical purposes it is the equal of movements sold for \$10 and more. It is short-winding and has enameled dial. Guaranteed one year, same as an expensive Elgin.

NICKEL-SILVER CASE

The case is solid nickel-silver and will never change color. For size and style see illustration. Heretofore this watch has been sold exclusively by jewelers for about \$5.00 each. With the same usage it will last as long as a Twenty-five Dollar watch.

SATISFACTION GUARANTEED If after 30 days' trial this watch does not give entire satisfaction in every particular, return it and we will refund your \$2.50 and make you a present of the subscription. It is sure to please every one.

To those who wish to see the watch before they buy we will send it free of charge to your express office with privilege of examination. If you want the watch, pay the express agent \$2.50 for it and a year's subscription; if not, the agent will return it to us. We pay the express charges on the watch and chain.

Price, with Farm and Fireside One Year, \$2.50.

Address FARM AND FIRESIDE, Springfield, Ohio.

40 Cent Patterns for 10 Cents

Any TWO Patterns, and Farm and Fireside One Year, 35 Cents.

These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only 10 Cents Each.

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there

being a separate pattern for every single piece of the dress. All orders filled promptly.

For ladies, give BUST measure in inches. For SKIRT pattern, give WAIST measure in inches. For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded. To get BUST and BREAST measure, put the tape measure ALL of the way around the body, over the dress close under the arms.

Special price of each pattern, 10 cents.

Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.



No. 6999.—LADIES' SHIRT-WAIST. 10 cents. Sizes, 32, 34, 36, 38, 40, 42 and 44 inches bust. No. 7011.—Same Pattern—Misses' Size. 10 cents. Sizes, 12, 14 and 16 years.



No. 7040.—MISSSES' SHIRT-WAIST, WITH STOCK COLLAR. 10 cents. Sizes, 12, 14 and 16 years.



No. 7009.—LADIES' SHIRT-WAIST. 10c. Sizes, 32, 34, 36, 38, 40 and 42 inches bust. No. 7010.—Same Pattern—Misses' Size. 10 cents. Sizes, 10, 12, 14 and 16 years.



No. 7057.—LADIES' PRINCESS TEA-GOWN. 11 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

I have used your patterns for two years. They give entire satisfaction. MRS. MARY E. GARD, Clarks, Oreg.



No. 7059.—MISSSES' WAIST. 10 cents. Sizes, 10, 12, 14 and 16 years. No. 7047.—MISSSES' SKIRT. 11 cents. Sizes, 12, 14 and 16 years.



No. 7090.—CHILD'S DRESS. 10 cents. Sizes, 1, 2, 4 and 6 years.



No. 6940.—CHILD'S SHIRRED FROCK. 10 cents. Sizes, 1, 2, 4 and 6 years.



No. 7067.—CHILD'S DRESS. 10c. Sizes, 4, 6, 8 and 10 years.



No. 6676.—LADIES' SHIRT-WAIST. 10 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.



No. 6864.—LADIES' WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 6738.—BOYS' SHIRT-WAIST, WITH BYRON OR SAILOR COLLAR. 10c. Sizes, 4, 6, 8, 10 and 12 years.



No. 6711.—BOYS' FAUNTLEROY BLOUSE. 10c. Sizes, 2, 4, 6 and 8 years.



No. 7060.—LADIES' SHIRT-WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust. No. 7064.—Same Pattern—Misses' Size. 10 cents. Sizes, 12, 14 and 16 years.

WE HAVE OFFICES IN NEW YORK CITY, SPRINGFIELD, OHIO, AND CHICAGO, ILLINOIS. NOTICE.—Send all orders for patterns direct to the central office, to FARM AND FIRESIDE, SPRINGFIELD, OHIO, where our stock of patterns is kept.

The Most Richly Illustrated Book of Biography in the World

AMERICAN WOMEN

Edited by MISS FRANCES E. WILLARD and MRS. MARY A. LIVERMORE.

Thirteen Hundred Fine Portraits.

This surpassingly important and veritably entrancing work contains 828 double-column Royal Quarto pages, 10½ inches long and 7½ inches wide. It comprises 1,500 life sketches, representing every walk in life, and these histories astonish as well as delight the reader in describing the wonderful success in a hundred different callings which our gifted countrywomen are triumphantly achieving.

GARNERING THE ILLUSTRIOUS RECORD OF WOMANLY DEVOTION TO DUTY

And sustained heroism in private and in public life, of struggle and achievement, of fame-winning and bread-winning, of successful endeavor and progress in a hundred different lines of business and the professions, of great undertakings in noble philanthropies and famous reforms, it has no parallel in literature. ❀ ❀ ❀ ❀ ❀ ❀

**This Great \$10 Book
We Sell for \$2. ❀ ❀ ❀**

Think of it! You will ransack the past and present in vain for any such bargain, for this crowning example of Nineteenth Century Literature and Art is a library in itself, a matchless gallery of portraits, where the beautiful, renowned or saintly among the women of the Western World look out upon us from every page.

In EDUCATIONAL VALUE "AMERICAN WOMEN" has been pronounced equal to the large Cyclopedias which sell at \$80 to \$120. It is a SUPERB PARLOR BOOK, superadding to its pleasing subject

A SCALE OF ILLUSTRATION LAVISH BEYOND PRECEDENT

Having over 1,300 Finely Executed Portraits from original photographs and celebrated paintings. Such an assemblage of pictured Beauty and Worth was never before brought within a single publication. In this mind-enriching, noble production hundreds of inspiring and ennobling examples are embalmed, some of them among

THE FINEST CHARACTERS IN HUMAN HISTORY

They tell of privation, obscurity, toil, discouragement, loneliness, difficulties of every kind, courageously met and conquered by the faith and effort of womanly women in every sphere. With impressive eloquence they proclaim the excellence and beauty of seeking the higher aims, and making duty and endeavor the watchwords of life.

"American Women" Gives the Life Story of Women Who Are

ARCHITECTS,
ACTORS,
ART EDUCATORS,
ARTISTS,
ASTRONOMERS,
AUTHORS,
BANKERS,
BROKERS,
BUSINESS WOMEN,
CERAMIC ARTISTS,
CHEMISTS,
CHURCH WORKERS,
CLUB LEADERS,
COMPOSERS.

DECORATORS,
DENTISTS,
DESIGNERS,
DRAMATIC READERS,
EDITORS,
EDUCATORS,
ELOCUTIONISTS,
EVANGELISTS,
FARMERS,
FINANCIERS,
HISTORIANS,
HORTICULTURISTS,
HUMORISTS,
HYMN-WRITERS.

INVENTORS,
JOURNALISTS,
KINDERGARTNERS,
LABOR CHAMPIONS,
LAWYERS,
LECTURERS,
LIBRARIANS,
LITERARY CONTRIBUTORS,
MILITARY GENIUS,
MINISTERS,
MISSIONARIES,
MUSICAL EDUCATORS,
MUSICIANS,
NATURALISTS.

NOVELISTS,
OFFICIALS, MUNICIPAL,
" COUNTY AND STATE.
" UNITED STATES,
OPERATIC SINGERS,
ORCHESTRAL CONDUCTORS,
PATRIOTS AND HEROINES,
PHILANTHROPISTS,
PHYSICIANS,
POETS,
POLITICAL ORATORS,
PRESIDENTS' WIVES, ETC.,
PUBLISHERS,
REFORMERS.

SCIENTISTS,
SCOUTS,
SCULPTORS,
SINGERS,
SOCIAL LEADERS,
SONG-WRITERS,
STENOGRAPHERS,
SURGEONS,
TELEGRAPH OPERATORS,
TEMPERANCE WORKERS,
VIOLINISTS,
WOMAN SUFFRAGISTS,
WOOD-CARVERS,
AND MANY OTHERS.

Specimen Portraits Free

It being requisite to print this work on superfine, extra heavy paper, for the reason that ordinary printing-paper will not allow of bringing out its highly finished engravings, it is impossible to here reproduce any of its pictorial features. But to any subscriber for FARM AND FIRESIDE, or any person intending to subscribe for it, we will send two dozen Specimen Portraits, exactly as they appear on the pages of this luxuriant work, FREE, on application.

Owing to the fact that this work is very large and heavy, it has been found necessary to divide it into TWO VOLUMES of equal size.

Price of Either Volume, and Farm and Fireside for the Remainder of This Year, One Dollar.

HOW TO GET IT FREE Either volume will be given free as a premium for a club of 10 remainder-of-this-year subscribers to FARM AND FIRESIDE. The subscribers may accept any of the premium offers in this or back numbers of this paper.

In this case the club raiser will be entitled to 10 guesses in the Missing Word Contest, and each subscriber will also be entitled to a guess. See page 19.

Postage or expressage
paid by us in each case.

Address MAST, CROWELL & KIRKPATRICK, Springfield, Ohio.

Agents Wanted

For this Great Illustrated, Wonderfully Fast-selling New Book. Most Liberal Terms, with SPECIAL Advantages to Workers. Write for Full Particulars, addressing the Publishers as below.

JULY CONTEST

4 First Prizes { ONE FOR WOMEN
ONE FOR MEN
ONE FOR GIRLS
ONE FOR BOYS } 4 Bicycles Free

And a Fine \$1 Book for Every One Who Guesses the Missing Word.

The prizes are given for supplying the ONE word missing in the following sentence:

"The inhabitants of our _____ country have lately had a useful lesson on this subject."

The sentence was uttered by a great American statesman. It is easy and the missing word is simple. The sentence was selected by a member of our firm, and no one else knows from what book it is taken, or what the omitted word is. The book has been locked up in a burglar-proof safe, and no one will be permitted to see it until the contest closes.

FOR ONE MONTH ONLY } Closes July 31. Stops July 31. Ends July 31. { FOR ONE MONTH ONLY

The Conditions The conditions precedent for sending a guess at the missing word is that each and every guess must be accompanied by a subscription to Farm and Fireside. (Any of the offers in this or past issues of this paper may be accepted.) The guess must be sent in the identical envelop that brings the money that pays for the subscription; forgetting it, or leaving it out by accident or otherwise, or not knowing of the guess at the time you subscribed, or any other reason, will not entitle one to send a guess afterward. *The guess must come with the subscription, or not at all.* No changes or corrections allowed after guess is sent in.

Persons may guess as many times as they subscribe. Club raisers may send as many guesses as there are names in the club, and each member of the club will be entitled to a guess. See clubbing offers in this and back numbers.

\$1 Book A fine \$1 book will be given to **EVERY ONE** who names the missing word; and if you are the first one to name it correctly, you will get in addition a bicycle free. It costs you nothing to supply the word, and you may get it correctly, as it is easy; but whether you do or not, you get a subscription and a premium. See subscription offers on page 14.

The 4 Bicycles will be awarded to the **FIRST** woman, the **FIRST** man, the **FIRST** girl and the **FIRST** boy who name the missing word. Therefore, it will be wise to send your guess without delay.

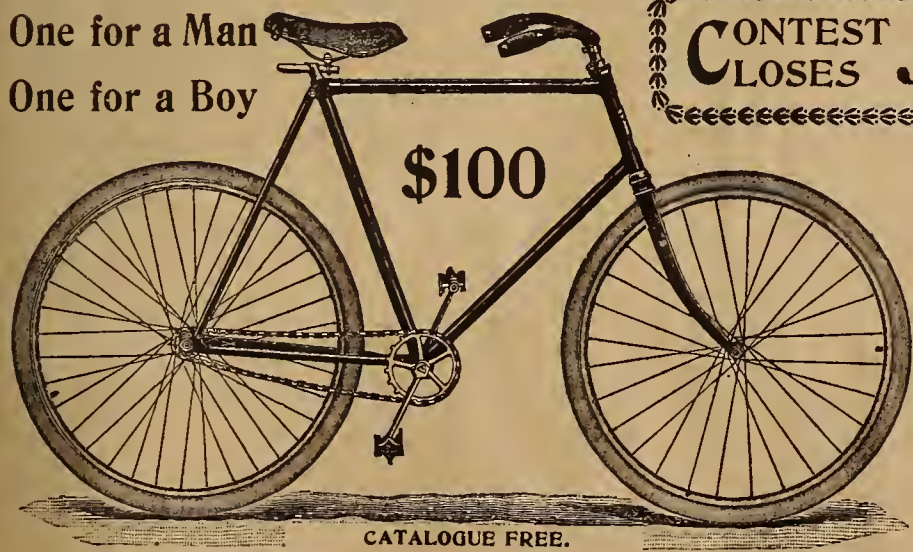
How to Send a Guess You need not write out the sentence in full. Take a separate piece of paper about the size of a postal-card, and write the word you guess, then sign your name, post-office, county and state, and say whether you are a man, woman, girl or boy. *No attention will be paid to a guess not accompanied by a subscription.* Below we give a sample guess, but "running" is not the word.

"RUNNING"
[This is not the missing word] John Smith (boy)
Jonesville
Brown County Arkansas

Persons living in Springfield, Ohio, and Clark county, Ohio, will not be allowed to enter or take any part in the contest.

\$400 IN 4 FIRST PRIZES

One for a Man
One for a Boy



CONTEST CLOSING July 31

One for a Woman
One for a Girl



Catalogue giving full description of bicycles sent free by the National Sewing Machine Co., Belvidere, Illinois.

The prize bicycles are made by the **NATIONAL SEWING MACHINE CO., BELVIDERE, ILLINOIS**, which is one of the largest concerns in America. They manufacture over 75,000 sewing-machines and over 30,000 bicycles a year. They sell their product in every civilized country on the globe.

Their bicycles are of the very finest quality. We have been selling their sewing-machines for years, and they have given universal satisfaction. Write for their bicycle catalogue. It is a beauty, and remember that four of the prize-winners get choice of their \$100 wheels.

\$1 Book FREE....

To **EVERY ONE** who guesses the missing word correctly we will give one volume of the **Magnificent Work "AMERICAN WOMEN,"** edited by Miss Frances E. Willard and Mrs. Mary A. Livermore. (See full description on page 18.) The editors of this monumental work are two of the best known and most beloved women our country has ever produced. Each volume contains nearly 700 portraits and over 400 pages. Each volume would be cheap at \$2.50. This is the most liberal prize offer of the kind ever made.

NOTE.—No more than one volume of this work will be awarded to any one person.

Contest Closes July 31, 1897.

Address **FARM AND FIRESIDE, Springfield, Ohio.**



DEER PARK

ON THE CREST OF THE ALLEGHANIES.

(Main Line B. & O. R. R.)

Season Opens June 21st, 1897.

SUPERB HOTEL AND COTTAGES.

For rates, rooms and other information apply to D. C. JONES, Manager, B. & O. Central Building, Baltimore, Md., up to June 10th; after that date, Deer Park, Md.

FOR 10 CENTS.
 in cash or stamps we will mail you our **SPOKE HOLDER**. It will fix your split felly and repair your broken and rattling spoke. Delays are dangerous. Send at once. **ROYAL MFG. CO., Racine, Wis.**

Saw Grist Cane Shingle Planing Mills, Hay Presses, all kinds of Machinery, new, first-class, CHEAP. DeLoach Mill Manufacturing Co., 501 Highland Ave., Atlanta, Ga.

WHITMAN'S BALING PRESSES.
 Always Victorious. A Full Line. Buy the BEST. Send for Circulars. Warranted Superior to any in use. The Largest Hay Press Factory in America. **WHITMAN AGRIC'L CO., St. Louis, Mo.**

ERTEL'S VICTOR HAY PRESS
 SHIPPED ANYWHERE TO OPERATE ON TRIAL AGAINST ALL OTHER HAY PRESSES. **GEO. ERTEL & CO QUINCY, ILL.**

Woven Field and Hog Fence,
 24 to 58 inches high; Steel Web Picket Lawn Fence; Poultry, Garden and Rabbit Fence; Steel Gates, Steel Posts and Steel Rails; Tree, Flower and Tomato Guards; Steel Wire Fence Board, etc. Catalogue free. **DEKALB FENCE CO., 38 High St., DeKalb, Ill.**

Irresponsible Agents.
 They are always ready to guarantee you against all claims for infringement. Fence buyers should remember that other gentleman (?) who was ready to give a warrant deed of the whole earth, and buy the Coiled Spring article, of the absolute owners, the **PAGE WOVEN WIRE FENCE CO., Adrian, Mich.**

SILOS Are Filled Quickly and Economically with "New Hero" **ENSILAGE CUTTERS** BECAUSE THEY EXCEL in rapid work, strength, durability and simplicity. Two gears only on the complete cutter. Sizes to suit all needs. **STRONGEST GUARANTEED. SOMETHING NEW: OUR UNIVERSAL SWIVEL CARRIER**, runs at any desired angle, and can be changed from one angle to another without stopping cutter. New 160 page catalogue mailed FREE. Tells all about Hero Ensilage and Padder Cutters, Corn Huskers Sweep and Tread Powers, Feed Mills, Goodhue, Wind Mills, Shellers, Peck's Corn Thresher, etc. **APPLETON MFG. CO., Batavia, Ills.**

DON'T HAVE A LAWSUIT with your neighbor because his stock breaks in and destroys your crops. It is better and cheaper to fence with the **KEYSTONE WOVEN WIRE FENCE**. Where it is used there can be no such trouble. Why? Because it keeps stock in or out, 25 to 58 in. high. Strong, durable, perfect. Can't hurt stock—it's smooth. Send for free hook on fence building. **KEYSTONE WOVEN WIRE FENCE CO., No. 30 Rush St., Peoria, Ill.**

What is the Missing Word? SEE PAGE 19.

Humor.

WHEN IS SHE LIKE A WORM?

"Where are those golf shirts of mine?" demanded Mr. Griggs.
 "Why, dear, I forgot to tell the laundryman to bring them home to-day," explained Mrs. Griggs. "But they'll be home to-morrow, sure."
 "Humph! To-morrow! I want one to-day. Do you think I want to swelter in one of these starched straight-jackets? Where's my summer suit? Did you have the girl crease the trousers and press out the coat?"
 "No, I didn't think of it, dear, but I'll have it done to-day."
 "That's it. Forget that I'm alive. I suppose you want me to wear my winter suit all summer. There are my gloves unmended yet. I suppose you forgot them, too. Did you darn any socks for me?"
 "No, I didn't know you had any that needed darning."
 "And you forgot to find out. Is there anything you can remember?"
 "I was busy cutting down a pair of my stockings for baby to wear to-day. Did you buy her any, as I asked?"
 "No, I didn't think of it."
 "What meat did you order for dinner?"
 "I haven't ordered it yet, but I will when I go down town."
 "You know it is too late now. Here's that letter I gave you yesterday morning to mail. Did you forget it?"
 "No. Carried it on purpose. Confound it! Why don't that water run?"
 "Because you forgot to pay the bill after the last notice, and it has been turned off."
 "Well, how am I to wash my face?"
 "Do as I had to do. Go up-stairs and heg a pitcher of water from the people on the next flat."

Mr. Griggs grabbed his hat and rushed away down town without a handkerchief or the keys to his office.—San Francisco Post.

THE JOKE WENT INTO THE RECORD.

"Now, your honor," argued the attorney in the court of Justice Brown, of Santa Rosa. "I move dismissal of this case on the ground that the corpus delicti has not been established."
 Judge Brown rubbed his chin in a perplexed way, fixed his gaze on the ceiling for a moment, and then, clearing his throat, said:
 "Of course, it is an old principle of law that the probator must correspond with the alligator, and in this case I am of the belief that the corpus is all right, but I don't know about the delicti."
 "Your honor, I want that to go into the record," demanded the opposing counsel. "I want the record to show that your honor said the corpus is all right, but you do not know about the delicti."
 Judge Brown realized that he had blundered, and sat staring at the attorney for a moment. Then, pulling himself together, he said:
 "All right, let that go into the record, but you fellows know danged well I was only joking when I said it, and that will go into the record, too."—San Francisco Post.

A LONG SHOT.

"Great sporting town, isn't it?" he said when he came down to breakfast. "Everybody invited to gamble; book-makers very enterprising. When's the race? Saw the odds posted on the back of my door this morning."
 "On the back of your door?" said the clerk.
 "Yep," he answered. "Dinner twelve to two. That's somewhat of a long shot."
 The clerk passed the bromide bottle.—Buffalo Enquirer.

A DELAYED EFFUSION.

"Fellow tried to work the editor yesterday."
 "How was that?"
 "Offered him a manuscript poem called 'Marco Bozzaris' for two dollars."
 "What did the old man say?"
 "Said the fellow had made the mistake of his life in not writing the poem two months ago."—Cleveland Plain Dealer.

FORGIVEN.

Mrs. Suburbs (hysterically)—"John, you thought I didn't see you, but I did. You kissed the maid!"
 Mr. Suburbs (reproachfully)—"But, my dear, you asked me to try to persuade her to stay another week!"
 Mrs. Suburbs (eagerly)—"Tell me, quick, John dear, did she promise?"—Truth.

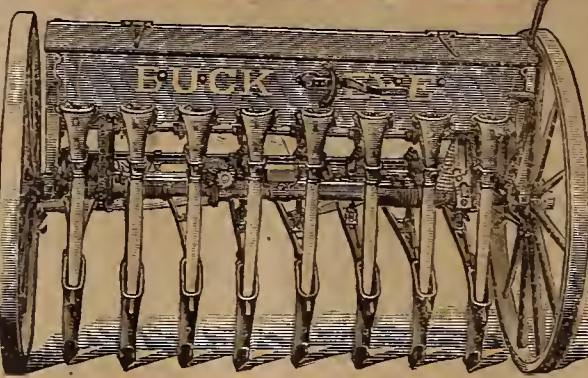
TRIAL FREE.

If you have rheumatism, try that simple remedy which cured me. Trial package and other information free. Address John A. Smith, Dept. H, Milwaukee, Wis.

BUCKEYE STEEL FRAME

Combined Grain and Fertilizer Drill

Ten years of unqualified success have proven the superiority of our **COMBINED GRAIN AND FERTILIZER DRILL**. It sows all kinds of grain and all kinds of fertilizer successfully. By the use of the **GLASS FERTILIZER FEEDER** we have overcome corrosion, rusting and clogging which have operated against similar machines. **THIS GLASS FEEDER FEEDS.**



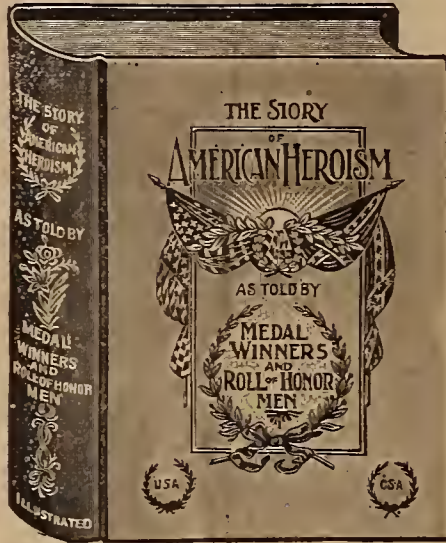
The acids of the average fertilizer are very destructive to all metallic substances and cause corrosion and rust that soon eats out the feeding attachments. Glass is impervious to the action of moisture or acids of any kind. It endures—it lasts—it is always ready for use. You will find more about it in our catalog and circulars of our **Buckeye Riding and Walking Cultivators, Buckeye Seeders, and other machines of merit.**

Send for them. **P. P. MAST & CO. 17 CANAL ST., SPRINGFIELD, OHIO. BRANCH HOUSE, PHILADELPHIA, PA.**

AGENTS WANTED

FOR

"The Story of American Heroism."



The latest and best book on the Civil War. Stories of personal adventure by Uncle Sam's Medal Winners and Confederate Roll of Honor Men, the cream of the Nation's Heroes, who were honored by the government for special acts of bravery; each man tells his own story for the first time. The most thrilling record of personal encounters, captures, hair-breadth escapes and blood-stirring experiences ever published. Reads like a romance. **OVER 800 LARGE OCTAVO PAGES; 300 FINE ORIGINAL ILLUSTRATIONS.** Narratives by Gen. Lew Wallace, Gen. O. O. Howard, Gen. Alex. Webb, Gen. Fitz Hugh Lee, Wade Hampton, Gen. Bradley T. Johnson, and a score of others equally celebrated. A **NEW IDEA**; official and authentic; the only book containing the stories of the Medal Winners. Every family will want it. Just out; territory fresh; absolute control of same. Interests people at once; sells where nothing else will. Popular prices and terms to suit the times. **Chance for hustlers to make \$50.00 to \$75.00 a week. \$10.00 A WEEK GUARANTEED TO BEGINNERS.** Don't wait an hour, but write quick for circulars to **AMERICAN PUB. CO., SPRINGFIELD, OHIO.**

FARMERS
 you can make money by selling and using **HOLDFAST** Corn Binders, used on every shock. Full and it's fast. Ties itself. Costs less than string. Never wears out. Thousands sold in a town. Good profits. Get town agency. Samples, 3 sizes, mailed 5 cts. **TIE CO., Box 528, Unadilla, N. Y.**

CIDER PRESS
 The only press awarded medal and diploma at World's Fair. **HYDRAULIC**
 Send for free catalogue and full particulars. **HYDRAULIC PRESS MFG. CO. No. 8 Main St., Mt. Gilead, Ohio**

\$1.50 SET OF SPOONS FREE

We will give this Set of Six Silver-plated Teaspoons FREE to club raisers for 6 remainder-of-this-year subscribers to Farm and Fireside. The subscribers may accept any offer in this issue.

In this case the club raiser will be entitled to six guesses in the Missing Word Contest, and each member of the club will be entitled to a guess. See page 19.



Price of this Set of Six Excellent Silver-plated Teaspoons, and Farm and Fireside One Year, Only 75 Cents.

These spoons are made of solid nickel-silver metal all the way through, and then heavily plated with coin-silver. They can be used in cooking, eating, medicines and acids the same as solid silver spoons. These spoons will not, cannot turn brassy, will not corrode or rust, and are so hard they won't bend. Spoons of equal merit are sold in the average jewelry-store for about \$1.50 a set. In beauty and finish they are as fine as solid coin-silver spoons costing \$6.00 a set. For daily use, year after year, nothing (except solid coin-silver) excels these spoons. They are silver color through and through, and will last a lifetime. They are **Guaranteed to be as described, and to give SATISFACTION, or MONEY REFUNDED.**

INITIAL LETTER Each and every spoon will be engraved free of charge with ONE initial letter in Old English. Say what initial you want.

WILL STAND ANY TEST

To test the spoons, use a file. If not found as represented, we will refund your 75 cents and make you a present of the subscription. If returned to us we will replace, free of charge, the spoon damaged in making the test, provided you agree to tell some of your neighbors about the test and what it proved. Address

Postage paid by us in each case. **FARM AND FIRESIDE, Springfield, Ohio.**

LIBRARY RECEIVED
 AUG 10 1897
 DEPARTMENT OF AGRICULTURE



WESTERN EDITION.

Entered at the Post-office at Springfield, Ohio, as second-class mail matter.

VOL. XX. NO. 21.

AUGUST 1, 1897.

TERMS (50 CENTS A YEAR 24 NUMBERS.)

Average circulation for the past six months

310,482 COPIES.....
 ...EACH...
ISSUE

AS FOLLOWS:

125,157 Copies of the Eastern Edition.
 125,157 Copies of the Western Edition.
 30,084 Copies of the New York Edition.
 30,084 Copies of the Illinois Edition.

With more than 1,500,000 regular readers.

FARM AND FIRESIDE

Holds the undisputed title of
MONARCH OF THE WORLD'S RURAL PRESS.

SEMI-MONTHLIES.

In all America no semi-monthly has credit for one half so large a circulation as is accorded to the Springfield, Ohio, FARM AND FIRESIDE, and the publishers of the American Newspaper Directory will guarantee the accuracy of the circulation rating accorded to this paper by a reward of one hundred dollars, payable to the first person who successfully assails it.—From Printers' Ink, May 6, 1896.

If the result for an expected large harvest of and demand for Indian corn prove similar to the conditions affecting wheat, the prospects of the planter and the farmer will indeed be favorable; but the Indian corn crop will be subject to damage until the middle of September. The present wheat outlook is for the continuance of declining stocks throughout the world during July, and with unfavorable reports as to foreign wheat crops the prospect is bright for the holders of wheat. But whatever the gains of the latter, nothing should prevent the far-sighted American wheat-farmer from participating in the very beginnings of the coming business prosperity."

THERE can be no prosperity in this country as long as corn sells at fifteen to twenty cents a bushel on the farm," is a declaration which is frequently heard from that class of individuals who are soaked through and through with the chronic business pessimism of the times," says the Kansas City "Star." "These persons overlook the fact that a large proportion of the tremendous corn crop raised in this country last year has netted the judicious farmer a great deal more than fifteen or twenty cents a bushel, because it has been made into meat on the farm, and has come to market in stock-cars instead of in grain-cars.

"The daily receipts of live stock in Kansas City amount to over four hundred car-loads, and each car-load of stock has consumed a good deal more than a car-load of corn. The amount of corn marketed in Kansas City in the form of cattle and hogs is about three times the amount that comes here to be sold on the grain market. The statistics of the United States Department of Agriculture show that only a little more than twenty-five per cent of the corn crop of the United States is sold by farmers to go beyond county lines. The rest is retained at home to be fed to stock, so that three fourths of the corn crop depends for its value on the selling price of live stock, not on the market quotations for corn.

"The present prices of fat cattle and hogs are high enough to make corn worth from twenty-five to fifty cents on the farm. The experience of all feeders is not alike. There have been many bunches of cattle sold in Kansas City recently which netted as high as fifty cents a bushel for the corn fed to them, and little stock returns less than an equivalent of twenty-five cents a bushel for the corn on which it was fattened. It is plain, therefore, that the low price of corn on the market is not a good reason for despairing of a return of prosperity.

"It is evident from other facts that cheap corn is not greatly impeding the accumulation of wealth on the farm. That a majority of farmers in the West are making a good deal more money than they spend for living is proven by the great volume of indebtedness that is being paid off in the West without resulting in the withdrawal of money from this section. Bank deposits are increasing in western cities as well as in eastern cities, and in country towns as well as in the centers of trade in the West. There is not the slightest doubt that the extreme depth of agricultural depression was reached some time ago, and that the upward turn is now under way."

THE Department of Agriculture has issued a farmers' bulletin on the probable wheat production of the world for this year, and the price which may be expected. The prospects of the American wheat-grower are extremely encouraging. Reports from all sections show that the outlook in this country is excellent, as regards quantity, quality and price. Abroad the indications are that the great wheat area of Russia will produce but a small and totally inadequate crop; that Austria-Hungary, France, Turkey, Italy, England and Argentine will all have light crops. From these countries comes the surplus of wheat which fixes the price of the world's supply; but instead of a surplus above home consumption the indications point to a large deficit.

At home the conditions were never more favorable. Carefully prepared estimates indicate a total yield of over 550,000,000 bushels, and good prices may be confidently expected.

The bulletin also shows where our exports of wheat go, and what the prospects are for an increased market for wheat in the Orient. The general tenor of the report is extremely encouraging to the American farmer, not only for this year's prospect, but looking to future years. The report suggests that the rapid change which is taking place in the civilization of Japan and China, and the raising of their standard of living in those countries, is opening an increasing market for wheat, and that the American farmer should claim his share at least. The most significant indication in this line is the remarkable manner in which our exportations of wheat to eastern Asia have increased during the decade just closing. Most of this is shipped in the form of flour. The total shipments of wheat-flour to Japan and China during the ten years ended June 30, 1897, according to the Treasury Department figures, amounted to 6,000,000 barrels, and by far the larger part of that was shipped during the latter half of the decade. In 1896 the shipments reached nearly 1,000,000 barrels. The indications are that the shipments for 1897 will be somewhat in excess of 1,000,000 barrels, which would be equivalent to more than four and one half million bushels of wheat. Of these shipments the bulk has gone to Japan, the people of that country having progressed much further in the scale of civilization than those of China.

IN a recent speech an ex-senator, referring to proposed remedies for hard times, said:

"The new-fangled political patent medicines of the hour which are offered to us on every hand deserve to be carefully scrutinized before we swallow them. The old constitutional remedies of our fathers may perhaps be better for us, after all. The unscrupulous or mischievous modern philosophers who vainly propose to benefit mankind by the remarkable feat of abolishing all poverty may possibly enrich themselves, while their deluded followers become poorer. There is too much demagogism abroad in the land; there is too much false doctrine taught pertaining to governmental functions; there is too much encouragement of the spirit of social crime and all that it implies, including communistic and chimerical schemes for a 'social democracy,' so called; there is too much toleration of disrespect for courts and constituted authorities; there is too much clamor for class legislation; there is too much inculcation of the idea that men can become rich without effort—by the mere fiat of the government instead of earning wealth in the old-fashioned way; and there is too much attention paid to cranks, blatherskites and political adventurers entitled to no consideration, but who seem to have obtained the public ear, and are seeking to pull down the pillars of society."

PROSPERITY in agriculture is the basis for prosperity in all other lines of business. When the farmer is well rewarded for his labors the merchant and the manufacturer, the employer and the employee all prosper. Week by week the evidences of returning prosperity multiply. There is no wild "boom," fortunately, but there continues a steady, gradual improvement that will soon put this country into a highly prosperous condition.

With bountiful harvests and advancing prices the farmers now see clearly the way out of depression, and hope has taken the place of despondency. Of farm products a few, like hay, are lower in price than one year ago; some, like corn, are the same, but wheat, oats, potatoes, cotton, wool, sheep, cattle and others are decidedly higher in price. Taking together the important farm products, the farmers will get for them twenty or twenty-five per cent more money this year than in 1896.

WITH THE VANGUARD

UNDER the heading "The Farmer Leads," Bradstreet's of July 10th has the following editorial:

"Notwithstanding domestic wheat-crop reports pointing to a harvest of 575,000,000 bushels, 100,000,000 bushels more than last year, the price of wheat gives signs of advancing along the lines laid down for it by some of the constitutional bulls. The world's stocks of wheat amount in round numbers to only 75,000,000 bushels, one of the smallest totals at a corresponding date for many years. This is the more significant when it is recalled that available stocks, not only in the United States, but in Europe, represent to-day a much larger proportion of total supplies, visible and invisible, than they did ten years ago, owing to the increase in facilities for public storage. Foreign buyers have evidently been impressed by recent reports from Russia, Germany, France and Hungary pointing to decreased wheat harvests this year. India, it is thought, will hardly supply more than she requires for her own consumption, and little is counted on from Austria and Argentine Republic.

"This brings the United States to the front as a prominent wheat exporter under somewhat similar conditions to those which existed in 1879, a period of revival from the preceding great panic after five or six years of retrenchment and economy. At that time European supplies of wheat were very generally short, and those in the United States unusually bountiful. We had passed through the period of recuperation following that of overinflation and speculation, even as we have within the last four years. The most encouraging feature of the situation to-day, then, is found in the advancing price of wheat during the harvest season. It will be difficult for newspapers with axes to grind to make the point this year that the advance in the price of wheat is going to the speculator and elevator owner instead of to the producer. It is the American farmer who is to profit first by the statistical situation of the cereal this time; and with the improvement in the material welfare of the American agriculturist must and does begin the improvement of general trade throughout the country.

Our Farm.

FARM THEORY AND PRACTICE.

MIDSUMMER VACATIONS.—Quite possibly some reader may say that a better heading for this article would be "A Farmer's Theory and Practice," as its purpose in part is to get away from the farm temporarily. It is with hesitation that I shall say what I do, but with the conviction that it is true, and should be said. Many of us farmers are permitting farm life to remain too much of a grind for our families and ourselves, and in such cases the effects are far from wholesome upon both parents and children. Hard work is good for every one physically able to perform it, but unceasing toil and care, with some fret and worry, harms any one physically and mentally. The last few years have been hard ones upon farmers from a financial point of view, and hard work and economy have ceased to be matters of choice in many households, and have become an imperative necessity that robs them of all their pleasure. We do not like to be driven. The result too generally seen is some loss of joyousness and freedom from care that should mark every life. There is a daily grind, and a feeling that pleasure-seeking and rest are beyond our reach. This is not true, I dare say, in a majority of farm homes, but on every side are households that are letting life become one continuous care. To such people my suggestion of a vacation will seem preposterous.

* * *

NO COSTLY TRIPS NEEDED.—Vacations mean rest, freedom from usual duties. They may be taken at home or near home. The thing needed is to get out of the rut and away from the daily round of thinking and working. On most farms plans may be made for ten days or two weeks of conscientious idleness on the part of every one, excepting a little absolutely necessary work. When congenial families plan such vacations at the same time, camping out, with simple diet, picnics, short trips and other pleasures not costly may be combined to refresh every one, and break up the monotony of ordinary life. Such diversion is the right of the boys and girls on the farms, and the duty of the older members of the family, who are growing old too fast. August heat invites us to break up the routine of hard labor for a short time, and demonstrate to young and old that the Lord has nothing against one because he makes a farmer of him, and that joy, rest and honest fun need not be monopolized alone by those who live in town. The midsummer vacation belongs to country folk as well as those in town.

* * *

SUMMER CONVENIENCES.—The Fourth-of-July orators tell us that no one lives more like a king than the farmer, but is this true? He may have fresher and better fruit and vegetables upon his table, and no one fears that the farmer will lack for good, wholesome food, but that is only a small part of desirable comfort. In respect to modern conveniences that go to make life pleasant thousands of farm homes are lacking in those things that are within their reach. Costly luxuries are beyond the reach of the mass of us, and with them I have no experience. Woman's comfort in the home during midsummer days should receive all possible consideration. There should be a cool kitchen, and that means one well ventilated and shaded by trees. Those old-fashioned makes of stoves that throw much more heat outside themselves than they do into the oven should be abandoned. In the interest of economy alone, for the saving of fuel, many of the old stoves in farm homes should be abandoned, and good ranges substituted. Modern ones use comparatively little fuel, and apply the heat to the roasting of the meat instead of the roasting of the cook. Then there is the gasoline or best oil stove. Such a stove saves the energies of the one doing the cooking, saving time, labor and temper. Most farmers can provide ice at little cost, and a moderate amount of it should be regarded as a necessity. In dozens of ways should we study to lighten the burdens of midsummer and get our pay for living as we go along. Pay-day on earth comes every day, and if one fails to draw his due at the time, he need not present his account at a

future date. Farm life pays big in comfort, if we will only take it. Our country boys and girls must have this truth demonstrated for them by their elders, or they will continue to drift cityward to find too late that they were under a delusion, and made a serious mistake when they got into the unfeeling and jostling crowd.

* * *

DISTINCTIVE DRESS.—If farmers are ever relegated to the rear and placed in a class by themselves in popular estimation it will be their own fault. The tendency of farmers to indulge in distinctive habits of dress and manner when not engaged in their work is much to be deplored. It is all wrong, wholly so, and we lose by such indulgence. One should dress according to the character of his work when engaged in work, but at other times there is no reason why rough and soiled clothing should announce our occupation for us. Carelessness in personal appearance grows upon many in the country, and the boys and girls notice this, and want to get away from it. Some reader may be saying that is a minor matter, but it is not. Our business, our political and social influence for what is good and just, is harmed by the cultivation of distinctive traits in manner and dress when we are away from our work and meeting with the world in pleasures or business. Costly clothing is never necessary, but a bath, shave and neat, clean dress brace a man up for winning when he goes out among his fellows. The business man knows this well, and profits by it. A multitude of farmers do likewise, but I fear that there is an even greater multitude that do not, and for one farmer I protest earnestly against anything that prevents any American farmer from helping to hold back that evil day when we farmers will be classed by ourselves in public estimate as merely so many toilers wholly immersed in our daily work, while others dominate public sentiment and create the conditions under which we labor and live.

DAVID.

THE FARM AND LIVE STOCK.

Grain-growers on the farms throughout the country during the past two seasons have considered themselves in distress. There has been great overproduction of corn and oats. The selling value of such grain has been low, far beyond proportion to many other articles the farmer must buy. The tenant, after paying his cash rent, has hardly been left a scanty living. In some cases, in fact, the rent-money more than exhausted the returns from sale of the grain. One good result of such conditions is the change in practice of cash renters to that policy of giving a part of the grain. The excessive high cash rent was due often to the fact that there was too much competition among renters in bidding for good grain-land. Too often the tenant who was paying all he could afford to pay had a rival who wished to oust him, and to this end offered an unduly high rate of cash an acre for desirable premises. Landlords have also learned that a tenant proposing to pay an unusually high rate for ground is not, as a rule, as desirable as one who makes more conservative propositions.

The great majority of farms should be devoted in part to growing three or more varieties of live stock—poultry, swine or sheep and horses; and one or more cows for dairying to a greater or less extent should be found on every farm. As far as possible the live stock should make their growth from grazing and hay or other provender. Grain will be necessary more or less in winter for much of the stock and throughout the year for the very young things. It is advisable, therefore, that a larger area of the farm be devoted to the pasturage, meadow and small grain, and fewer acres than in the past should be given to corn. By rotation of crops, so that no more than two successive corn crops are grown on the same field, the yield to the acre will ordinarily be increased fully one third. This, it will be observed, is nearly equivalent to three ordinary crops of corn in two years. The same ground withheld from corn on the third year under skilful tillage and management should produce an extra good yield of some other grain or grass.

The variety of grain that may be grown to advantage should be carefully considered. Improvements in certain grains, too, are to be noted. Barley in former years has been objectionable where stock is kept on the farm, because of the dis-

agreeable beards. This objection is now largely obviated in the new beardless grain. Later still has appeared the hull-less barley, which may be threshed out as clean as wheat or rye. With such a number of kinds of grain to use the risk of having a large field of oats to fall down on rich ground by its own weight and damage before maturity may be obviated. Many stockmen consider the beardless barley a first-class substitute for oats. The strength of straw and the adaptation of certain grains to rich ground is of moment in considering the worth of various grains. The present conditions of great overproduction on two leading food grains for live stock should lead every intelligent stockman into the practice of growing a much wider variety, for several reasons, as well as the one of low value. The season's work may be managed with less help where three or four kinds of grain are to be harvested at different times, instead of one kind which may all be required to be harvested on the same day. The live stock, too, will appreciate a change in their rations, and it will not only be more healthful for them, but they will make better gains in growth and weight.

Special regard must be had for the by-products of the various grains. A part ration of straw goes well with rich clover at any time during the winter. Clear, bright, dry straw is also a help to grazing animals in midsummer, often preventing bloating when pasturage is unduly rich and tending to form an unusual amount of gas internally.

As a rule, during the past two years the farmers who were able to feed their grain to live stock have received far greater returns than where they have depended on selling the grain to feeders or the grain-shipper. The farmer who fattens a half dozen bullocks or a score of porkers is finding employment for some of his own spare time, as well as increasing the profit on the food consumed in this way.

The more one can equalize his labor throughout the year, and by this plan use a greater number of acres for tillage and grazing, the better is his prospect of deriving better revenue for his season's income. It is ordinarily wise in buying a farm to procure, if possible, a tract of land of which at least three fourths of it is of the best quality for tillage. If the other fourth is rolling and adapted mainly for only meadow and pasture, it will be found at times as profitable where one keeps stock continually as though the entire area should be of the highest quality. It is a fact that on some of the new lands of the far West and Southwest of late the stockmen have made more money in proportion to their investment on the so-called desert wastes than have the stock-growers of the richer and more fertile plains of the central West. M. A. R.

MY IRRIGATION PLANT.

Every gardener appreciates the value of having water available for irrigating the garden at any time. If one depends on the usual rainfall, the best results will not always be obtained, for though he supplies all the plant-food needed, yet without water it remains insoluble in the soil. For several years a drought in June had shortened my crop of strawberries about one half what it should have been, and I began to consider the subject of irrigation. My truck-farm has a large brook running through it, which divides it into two nearly equal parts. The bed of the brook is from four to eight feet below the surface of the garden. How to elevate this water so as to be able to use it for irrigating purposes was the question for me. A windmill was too uncertain, an engine too expensive. I finally decided that I could elevate the water the most economically with a hydraulic ram. One of the largest rams, with a fall in the drive-pipe of about six feet, was placed in the brook. Near the brook on the highest bank a large tank was built of pine planks, and at a height sufficient to carry the water over the whole garden. From this tank iron pipes were laid in different directions over the surface of the ground. At about every third end was placed a T coupling in which were iron plugs which could be unscrewed and a hose attached at any place where I wanted to use the water. I let the tank fill with water during the night, and then toward night the next day distributed over the garden, and it may be applied with a sprayer or poured on in a stream, as desired. To prevent the ground baking with surface irrigation, and

to economize in the use of water, I sometimes place a mulch of manure between the rows of plants.

One object I had in view when I built the water-tank was to dissolve fertilizers in the water and feed them to the plants through the pipes. So far I have not had time to make many experiments with this plan, but one with poultry manure gave good results. To prevent the manure clogging the pipes it should be put into loosely made sacks, or put into a box made of slats close enough to hold the manure and still let the water in to carry out the food materials. I think I see great possibilities in using the tank for applying chemical fertilizers in solution. The plan I have in mind is to furnish the soil with potash and phosphoric acid in the form of ashes, muriate of potash and superphosphates; then having dissolved nitrate of soda in the water, feed it to the plants as they need it. If water for irrigation is taken from a tank, so as to expose a large surface of water to the sun to warm it, it does away with the objection against irrigating from wells, that the water is too cold to apply directly to the plants.

I have found it a great convenience to have water at hand to use when transplanting. I was formerly obliged to delay this work because of dry weather, but now, with plenty of water for wetting the ground, I am not obliged to wait for a rainy day, but can do the transplanting at any time when ready. If, after having prepared the land and marked it for plants, it is dry, a hose is attached to the pipe and a few rows are thoroughly wetted. The plants are then set, and a little dry soil drawn around them to keep the ground from baking. If dry weather continues, they are watered again in a day or two. By this method I never fail to make nearly all the plants live even in the driest weather. My experiments in irrigating strawberries are most satisfactory. I commence to irrigate them as soon as they begin to blossom, putting some fertilizer in the water a day or two before. The color of the foliage was immediately changed to a dark green, and a large growth followed both of leaf and berry. The iron pipes are laid over the bed about one hundred feet apart, and I sometimes apply it with a revolving sprinkler attached to the hose when only water is used. If I am applying liquid fertilizers that may injure the foliage, I lay the end of the hose on the ground, and run the water between the rows. In irrigating celery the water is started at the upper end of the row, and after the water has run as far as it will, more hose is added to carry it further along, irrigating every alternate row; then going over the field again, taking the other rows. With irrigation I can grow more than twice as much celery on the same ground, and it always makes a good growth.

W. H. JENKINS.

Delaware county, N. Y.

A WEED-EXTERMINATOR.

Sheep are one of the best weed-extermi-nators on a farm. A few sheep turned into a field where foul stuff is growing in the fence-corners and around stone piles will soon have it all cleared away.

They seem to enjoy standing on their hind legs to reach up into the top of some bush to give it a good browsing. I would not dispose of all my sheep on this account if wool were worthless, although I am in hopes of seeing wool reach its former price in a couple of years.

Sheep, in order to produce a heavy growth of wool, and at the same time raise a lamb, must have special care. Some farmers seem to think that sheep will live on any kind of pasture at any time of year without any water to drink.

Sheep cared for in this way are a loss to any one, for the wool is of inferior quality, and will not sell for as much as the wool from well fed and cared-for flocks.

There has been a vast change in our flocks of to-day and twenty-five years ago. At that time a sheep was all right if it had a strip of wool on its back. The up-to-date sheep has wool where there is sheep.

Sheep are good property once more, and the farmer who sold out will not have a better opportunity to replace his flock at a small cost than at the present time. There has been an enormous decrease in sheep in the United States during the past few years. This in time will raise the price of both mutton and wool, so one cannot go far wrong in investing money in sheep.

ELIAS F. BROWN.

Our Farm.

MODERN SCIENTIFIC MAGIC AS APPLIED TO BUTTER-MAKING.

At a recent agricultural fair in western Massachusetts some choice Jersey cows were milked at 10 o'clock A. M. The milk was at once placed in a centrifugal separator—this particular one was small and adapted to private dairies—and in a few minutes the cream and milk were thoroughly separated; and the cream, being transferred to an excellent patent churn, was turned into butter in a short time, and then worked in a patent trough, the boast of which is that "human hands do not touch it." By twelve o'clock it was salted and done up in neat packages that had been carefully weighed, in paraffin-paper. The gentleman who was superintending the process kindly presented one half of the product to the matron of a near-by hospital where there is a training-school for nurses, and it was placed on their table; by one o'clock it had all vanished, and they could boast that they had eaten butter that three hours previously had been in the udder of the cow.

Now, you ask, was that butter good? Yes and no. The human system demands a certain amount of ologenous material—this it gets in such butter as the above; but the palate demands certain flavors, which the scientist calls sapid, but which the unlearned express by "it tastes good." This rapid-transit butter is tame and tasteless compared with the product of any well-conducted creameries or with intelligently managed private dairies. Where is the difference? In order to have a desirable flavor the cream before churning must undergo the "ripening" or "souring" process. In what does this "souring" or "ripening" process consist? Professor Conn. of Connecticut, who has studied the butter and cream production of that intelligent and thrifty state for now these six years, says: "The flavor, the aroma and the acid which are produced in the cream during its ripening, and which give the peculiar character to the butter made therefrom, are due to the growth of bacteria in the cream."

Milk when drawn from the cow has a multitude of microscopical forms of life in it, which have come, not from the milk-glands, but from the milk-ducts, into which they have made their way from the outside. Many of them are entirely harmless, and have nothing to do with the flavor of butter; but when the cream is left to "ripen," bacteria develop in it in almost incredible numbers, and it is found that the finest flavors are developed by the acid-forming species of bacteria; but not all acid forms are beneficial, and by a long series of careful experiments it is demonstrated that good flavors may be produced by bacteria which produce no acid. The story of these experiments, while conclusive, is too long and technical for this place; but the practical outcome of all is that now the most enlightened conductors of dairies and creameries "inoculate" their cream with a carefully selected species of rapidly developing bacteria, which "get ahead" of the original ones in the cream, and thus they control the flavor of butter so as to give "June butter the year round." The minute account of the different experiments by which these conclusions have been reached fill several large pamphlets, which can be obtained by addressing Professor Conn. at the Storrs Agricultural Station, Conn., and comprise the study of six large creameries, and of many animals kept in private stables for several consecutive months.

The first definite knowledge of good butter bacteria came from Denmark, which is easily first of all the world in butter production. It is in that country that schools for teaching dairying in all its branches were first established, and it is there that the famous dairy is conducted by an enterprising and intelligent woman, who supplies the butter to many of the royal tables of Europe. She has beautiful white-tiled floors and walls in the rooms where the work is done; her cows are washed and groomed before milking, and the men who do the work are compelled to a corresponding degree of cleanliness, though it is not related there, as it is of one New England "fancy" dairy, that the milkers have to bathe and part their hair in the middle before being allowed to sit down beside the cow. Her butter is packed in porcelain jars, and if we call a superior sort gilt-edged, hers can be called diamond-

edged. They have a term "loopful" in the bacteriological laboratory when they study milk. It is a drop the size of a large pinhead. In one loopful there have been counted 60,000 bacteria, in another 20,000, but in a very sparsely populated one only 250. Many people are incredulous when you tell them of these tremendous numbers, if they have no knowledge of the ingenious inventions by which they are counted. But when you show them a single hair from their own heads magnified to look like a telegraph-pole, they yield assent. Men have counted the red corpuscles in the human blood, and find that there are 5,000,000 in a single millimeter, and beside that the milk problem is comparatively simple.

Now, the next steps after learning that the flavor and aroma of butter are controllable is to cultivate the right kinds, or kind, of bacteria and inoculate the cream, and thus secure the right sort for the desired flavor, and to produce a uniform result and make sure that bacteria that might produce bad flavors shall be surely destroyed. The milk is first pasteurized; that is, the milk is heated to 158 degrees Fahrenheit—much below boiling heat—for fifteen minutes, and then allowed to cool. This destroys all the kinds of bacteria that do not have spores (seeds), and these do not affect the flavor or aroma (the character that affects the nose) of the butter. Dr. de Schweinitz, of Washington, D. C., lately said, in an address on bacteria up-to-date: "Fortunately or unfortunately the use of these germs has been patented, so that in the near future we may see branded upon particularly fine butter and cheese, 'Patented in 1893; amended, 1896; reissued, 1908, etc.'" But when he asks, "May we not expect soon a patented process for sterilizing breathing, eating and sleeping?" he misses the point. The thing that has been patented is the careful culture of a correct sort to produce a desirable flavor—the scrupulous isolation of it from all others, and the putting of it into hermetically sealed bottles by a man who holds himself responsible for failures.

Dr. Conn. in summing up, says: "It follows that the use of starters will commonly give rise to favorable results, even though the cream is largely impregnated with other species of bacteria before the inoculation with the artificial starter. This fact lies at the basis of the use of artificial starters either with or without pasteurization. To produce the desirable result it is necessary to have the starter contain a large abundance of some favorable species, which by its growth can both check the development of the ordinary cream bacteria, and can develop a proper flavor by itself."

It needs hardly be said that the cultivation and putting up for commercial use of the proper starters is a process of the utmost scientific delicacy.

It is just twenty years since Sir Joseph Lister studied, isolated and described the bacterium that produces the ordinary souring of milk, which was afterward named by Hueppe bacillus acidi lactici. Since then the entire science of bacteriology, which measures so large an arc on the isle of human knowledge, has been developed—a science that placed the practice of medicine upon a scientific basis, and rendered possible an intelligent system of agriculture and animal husbandry.

Mrs. H. M. PLUNKETT.

UTAH SMALL FARMS.

The small farm is the mainstay of Utah and the power behind the throne of agricultural independence. There are twenty thousand farms in the state, averaging about twenty-five acres each, under actual cultivation by means of irrigation. Added to this area is a similar acreage of non-irrigated pasture and meadow lands. These farms yield (according to official statistics) over 3,000,000 bushels of wheat, half that amount of oats and potatoes and a proportionate production of other cereals every year. The small orchards and vineyards, of which every farm has more or less, yield about 630,000 bushels of fruits, and their products of cider, vinegar and molasses amount to 200,000 gallons yearly. To this may be added 4,000,000 pounds of butter, 850,000 pounds of cheese and 1,200,000 pounds of honey. The irrigated grass-fields produce 463,000 tons of alfalfa, while the non-irrigated valleys yield 135,000 tons of wild hay every year. Over 40,000 tons of sugar-beets are grown and made into sugar annually.

Fifty years ago the present irrigated and productive valleys of Utah were immense deserts of aridity. By the aid of modern irrigation and the peculiar system of Mormon co-operation these deserts have been reclaimed and fertility restored to the native soil. Individual efforts would have failed in the conquest of aridity, and the claiming of large areas would certainly have defeated the successful colonization. The Mormon leaders very wisely prohibited their members from seeking mineral treasures until sufficient land was put under cultivation to produce enough food for every inhabitant. The people settled in small colonies, dividing the plots into lots of one and one fourth acres. On these city lots the houses and corrals were built, and perfect colonies were formed. The adjoining fields that could be irrigated were divided into ten and twenty acre tracts, while the non-irrigated or meadow lands were similarly allotted. The town sites were homesteaded by the respective mayors, and the cultivated area was obtained by co-operative claimants, deeding each a portion after procuring title.

Very few of the farms are fenced, and only irrigation ditches mark the dividing lines between owners. The sheep and cattle are kept in the mountains during the summer season, and permitted to roam at large over the cultivated area during the winter. This eminent domain, the property of everybody, has about 2,500,000 sheep and over 450,000 cattle, horses, mules, swine and goats. The success of farming has been materially handicapped by mining sensations created in almost every section. This has caused the mortgaging of over ten per cent of the farms to get money to sink holes in the ground, with the expectation of the owners becoming millionaires. Again, the tendency of many speculative farmers branching out into larger schemes and neglecting the small farm has depreciated its value as a producer. Modern ideas of magnificent possessions destroy the small-farm sentiment, and the worry and trouble consequent upon inevitable failure create chronic growlers, resulting in political disturbances.

The co-operative methods inaugurated by Mormon colonists have contributed to the success of the small farm. Wilford Woodruff, president of the Mormon church, has lived upon a twenty-acre farm and supported a large family from its income during the past forty years. He could not have realized enough from that farm to pay the taxes had not several adjoining farmers co-operated in building irrigation canals and looking after the roaming cattle and sheep. One man guards not only his own growing crops and protects the irrigation supply, but assists his neighbors, because all have equal interests. The small farmers do not require so much of an investment for machinery, few hired hands are necessary, and the general expenses are light, because of the co-operative methods. An era of intensive soil culture is inaugurated where small farms are operated, and two blades of grass are grown where but one was grown before, because of the extra cultivation and application of proper fertilizing agencies. Irrigation makes the small farm profitable, and many lessons may be learned from the system of small farms in Utah. JOEL SHOMAKER.

EXTRACTS FROM CORRESPONDENCE.

FROM VIRGINIA.—Perhaps some of your readers would like to hear from one in the "sunny South" who was raised in Ohio. We have a fine climate here all the year round, and can raise nearly everything. Poultry does well here, and we get good prices—from twenty to forty cents a pound each for early chicks weighing one pound each. What we need most is more northern people to make homes here and improve the country. Licking, Va. J. T. L.

FROM OKLAHOMA.—Logan county is a fine fruit, grain and stock raising country. The wheat crop is the largest ever harvested in the territory. It is estimated at 30,000,000 bushels. The yield runs from twenty to fifty bushels to the acre. The oats crop is also immense. Early peaches, apricots and plums are now on the market. Vegetables of all kinds have grown magnificently this year. There is a great deal of cotton raised in this county. Guthrie, the capital of the territory, is the county-seat of Logan county. It is a flourishing little city of about 10,000 inhabitants. E. R. A. West, Oklahoma.

FROM TENNESSEE.—Our wheat and clover crops are very good. Corn is doing well. Cotton is not very good on account of the cold, wet spring. There are many people here now from the North and Northwest looking for homes. One visitor from Nebraska says this is the grandest country he ever saw. Home-seekers are taking advantage of the cheap rates to the Tennessee centennial, at Nashville. I visited the exposition on Ohio day. At night it was the grandest affair I ever looked at. F. W. M. Murfreesboro, Tenn.

FROM OHIO.—Thousands of bushels of strawberries were shipped from this county (Lawrence) this year, and great quantities were sold at Huntington, W. Va., which is our nearest market. Early apples are fine, but late apples will not be a half crop. Peaches will probably be a half crop, but there are no pears and very few quinces. Grapes look well. Wheat is fine. Grass is also good, the best we have had for years. Corn looks well. Lawrence may be the banner strawberry county in the near future. Proctorville, Ohio. W. H.

FROM MINNESOTA.—I want to tell the readers of FARM AND FIRESIDE of the chances there are in this part of the West for dairying. If it is a good business in the eastern and middle states, where the land is worth from \$50 to \$100 an acre, why is it not here where land can be bought for from \$8 to \$15 an acre? There is plenty of grass for the cow. There is room in this vicinity for fifteen or twenty farms that can keep forty or fifty cows each. There is a creamery all ready for business standing idle for the want of cows and patrons to run it. There are only two farmers paying any attention to the creamery business, and they are doing well. Most of those who are here think they cannot do anything but raise wheat or flax, and pay no attention to the cows. There is a good chance here for men who are interested in butter-making. Come and see. I. C. B. Tintah, Traverse county, Minn.

FROM FLORIDA.—I came to this state about eight years ago, and engaged in farming and fruit-growing. I put out an orange grove the first year, and brought it to bearing in three years. The great freeze killed my grove to the ground in the winter of 1895. Since that time I have brought my grove back to bearing. About one half of my trees are now full of fruit. I have apples, peaches, pears; in fact, all kinds of fruit. I have farmed and made plenty to live on. Crops have never failed since I have been in Florida, if properly taken care of. I have corn this year that will yield forty bushels to the acre. Vegetables can be raised for northern markets, and paying prices realized. I have out a crop of onions that will make 400 bushels to the acre. My cotton looks fine. Tobacco does well and brings ready cash. Grapes pay well made into wine. About \$400 an acre can be realized. Wild lands can be had for from \$5 to \$10 an acre, within a mile from the depot, and cheaper farther away. A. R. C. Welshon, Marion county, Florida.

FROM VIRGINIA.—The Buckingham branch of the Chesapeake & Ohio railroad runs twenty-one miles up in the county from Bremobluff on the main line. At Arvonla the finest roofing-slate in the world is taken out. There are several large quarries. This slate is used for nearly every purpose now—roofing, mantels, table-tops, tombstones and many other things. A slate tombstone is said to outlast that of any other kind, marble and granite not excepted. Historic Appomattox county joins Buckingham on the west. A very fine wheat crop has been harvested in this section this year. All crops are looking well. This is one of the best farming sections in Virginia for tobacco and all the grain crops. One man sowed one and one half bushels of wheat last fall and threshed fifty from it this fall. Land, unimproved, is very cheap here, and improved land not very high. We have good markets, cheap transportation and good roads. There has been a marked improvement in the roads during the last year. Your paper is read and appreciated here more than any other of its kind that comes into the county. W. C. H. Wealthia, Buckingham county, Va.

Hard Lot in Life

But She Finally Found Relief from Her Sufferings.

"I was troubled with my stomach and suffered severe pain after eating. I began to think my lot in life was very hard. One day I concluded I would make one more trial and I sent for a bottle of Hood's Sarsaparilla and a box of Hood's Pills. The result was that I have had not one bad spell since I began taking these medicines. I can eat all kinds of food without unpleasant consequences." Mrs. G. W. Wix, Sybena, Ohio.

Hood's Sarsaparilla

Is sold by druggists. \$1; six for \$5. Prepared only by C. I. Hood & Co., Lowell, Mass.

Hood's Pills cure Liver Ills; easy to take, easy to operate. 25c.

TRAINING IN AGRICULTURE.

In a paper before the Ohio state farmers' and breeders' institute held in the state senate chamber, Columbus, last winter, Professor Thomas F. Hunt said in part:

"It is impossible in a paper of this character to state fully of what technical instruction in agriculture consists. I can only give examples. The student studies the soil; he is taught to analyze the soil; he studies its physical properties, finds the number and size of the grains in the soil. He finds from this study that the exterior surfaces of the minute particles in a cubic foot of soil may equal three acres, and that soils differ largely in this particular, and the power of crop production depends in a measure upon this fact. He finds for himself from actual trial that an important difference between the rock and the soil is the fact that the rock is solid and that one half of the space in the soil may be unoccupied by soil particles. The student is taught the use of fertilizers, and how to calculate their value; he is taught the manner and methods of drainage and irrigation and of tillage, and the effect and use of various farm implements upon such processes. The history, use and culture, climate and soil adaptation, harvesting and marketing various varieties of farm crops are carefully studied. Kinds, care and management of live-stock are taught. The student is taught the characteristics that each class of animals should possess for special purposes, and by means of score-cards students are taught to judge the various classes of live stock.

"As an illustration of what may be accomplished in this line, thirty students of the university judged six cows from the herd of a leading stockman of this state. After the students were through he stated to me that he would sooner risk his cattle in the hands of those students than in the hands of any of the judges at the eight county fairs at which he showed his cattle this season; yet most of these students had but two lessons in judging this particular class of animals, in addition to a couple of lectures upon the subject. The student is taught the principles of breeding and mating animals, and is taught to understand and properly interpret pedigrees. He is taught the principles of feeding, and how to calculate feeding rations which will bring the best results with the foods at hand and for the purpose used. Butter and cheese making and testing and pasteurizing milk are most thoroughly taught with ample facilities and expert instructors. Three thousand feet of floor space are already devoted to the machinery and apparatus for this purpose, and Townsend Hall, which will be ready for use this fall, will contain six thousand feet devoted to machinery and apparatus for instruction in butter and cheese making, testing and pasteurizing milk, and the management and operation of boiler and engine. No handsomer suite of rooms can be found anywhere in America for this purpose than will be found in this building. Fruit-raising and vegetable-growing and greenhouse work are thoroughly taught. In addition to the large gardens, lettuce, radishes and tomatoes and other vegetables are raised by subirrigation under glass. Grafting, budding, cross-fertilizing, trimming and other technical work of the horticulturist the student is taught to do. Both forestry and floriculture are given special study. Diseases of animals, diseases of plants, insect enemies and insect friends receive proper attention, and methods of treating diseases and combating insect enemies by spraying and otherwise are amply taught. The skill which students acquire in the forge-shop and in the carpenter-shop, working but six hours a week for ten weeks, is truly remarkable."

It must not be understood that this is all that is taught in the courses in agriculture and horticulture. These courses of study give a good general education along with the special instruction relating to all branches of agriculture. For example, the four-years' course in agriculture consists of about one third technical agriculture, one third science and one third English and other languages, philosophy, history and economic science.

THE OHIO STATE UNIVERSITY.

The astonishment of most people upon their first visit to the Ohio State University is a matter of surprise when we remember it is a state institution, and therefore belongs to the people themselves.

Many persons fail to realize that there is located at Columbus one of the leading seats of learning of the central west. The university now has over eighty instructors and thirty-four departments of study, and offers thirty distinct courses. The university is divided into six colleges: Agriculture and domestic science; arts, philosophy and science; engineering; law; pharmacy; and veterinary medicine.

The income and expenses of the university for the year 1896 were \$175,000; \$55,000 was received from the general government, about \$90,000 through acts of the state government, \$22,000 from fees, the remainder

from minor sources. Aside from the College of Law, for every dollar that the student paid for instruction at the university the state expended upon the student ten dollars.

The average aggregate fees paid by each student for instruction is twenty dollars a year. In the College of Agriculture and Domestic Science the state even goes further, for the board of trustees offers two free scholarships from each county in the state.

The university has three hundred and forty-five acres of land in the corporate limits of Columbus; has ten buildings devoted to instruction, and three more in process of erection.

One of these is Townshend Hall, the new agricultural building, which with equipment will cost about \$100,000, and will be one of the most complete buildings ever erected for this purpose.

CONCERNING THE AGE.

It is well known that women witnesses shrink from telling their true age in court. But the foible is not one of sex. Court habits will tell you that many men who certainly are no longer in the ranks of young America shrink from a true age statement. For that matter the average man has as much personal vanity as the average woman. I have long noticed in hotels and on ferry-boats that gentlemen gaze quite as often into the mirrors while they pass as do ladies. With the latter the focus of attention is the hat or bonnet, but with the former the collar or the mustache.

IN ILLUSTRIOUS COMPANY.

The door of the corner saloon suddenly opened, and a greasy vagabond shot out through it with great violence, apparently moved by some strong impelling force behind him.

Rising slowly from the gutter into which he had rolled, he picked up his hat, adjusted it on his head, and turned stiffly to the solitary bystander who had witnessed the scene.

"I presume I remind you," he said, "of some unfortunate European ruler. I am the victim of a hum-thrower."

And he moved with heavy dignity down the street.

SUMMER PLEASURES.

THE GREAT PENNSYLVANIA RAILROAD'S PLEASURE-RIDES TO MOUNTAIN, LAKE AND OCEAN.

The pleasure resorts of the United States are equal in every respect but age to those on the continent of Europe, and indeed they are superior to the European place of recreation and enjoyment in many respects. It is very doubtful whether there is the equal of Atlantic City for variety of scene, safety in bathing, perfection of arrangement and economy in living anywhere from England all the way through the domains of the effete monarchies of the Old World. Travelers who look at what they see instead of where they see it are a unit in declaring that the Alpine wonders of Switzerland are not surpassingly great and beautiful and grand when compared with Allegrippus or Horse Shoe Bend in the Alleghenies, Jack's Narrows along the blue Juniata, the Wyoming valley, the stupendous mountains of the anthracite coal regions, or the beautiful combination of city and country, mountain and valley, river and plain as viewed from Mount Penn or Never-sink Mountain in the historic Schuylkill valley near Reading, Pa. It is generally conceded that the pastoral scenery of Pennsylvania between Harrisburg and Philadelphia is unequalled anywhere on this planet; and certain it is that a ride from Harrisburg north to Williamsport, or south to Columbia, along the banks of the Susquehanna is an inspiration.

The great Pennsylvania Railroad undoubtedly stands at the head of all the avenues that have been opened up to reach or penetrate these gems of America's wonderland, and it is indeed a pleasure to travel by way of this king of the railway systems of the world. No other railway is the possessor of such perfect appliances to insure the safety of its patrons from accident. No other railway operates trains of equal perfection in equipment or rapidity of movement. No other railway employs trainmen and attendants of equal intelligence or regard for the comfort of passengers. Any reader of FARM AND FIRESIDE contemplating a trip anywhere in America for either pleasure or profit will always do well to remember that the prairies of the West as well as the valleys and mountains of the East are gridironed by the rails of this greatest railway system of the world, and that New York, Philadelphia, Cleveland, Cincinnati, Chicago, St. Louis, Baltimore, Washington and nearly all intermediate points are alike included in the domain traversed by the perfectly systematized and swiftly moving trains of the Pennsylvania Railroad, while the connections made for all points North, South, East and West, from San Francisco to Boston, or from Chicago to the most southern confines of the United States and on into Mexico, are well nigh perfect.

REPORT OF JUDGES IN JUNE WORD CONTEST.

SPRINGFIELD, OHIO, July 20, 1897.

MAST, CROWELL & KIRKPATRICK, Publishers Farm and Fireside.

Dear Sirs:—We, the judges in your June Word Contest, after a careful examination of the lists of words submitted to us, formed from the letters in the three words "Farm and Fireside," find that the following persons have formed the largest number of correct words, and we therefore award them the prizes:

NAMES OF PRIZE-WINNERS.

- First prize, Lilla Faas, Leeds, Mass., - - - 1,351 words.
- Second prize, George W. Armstrong, Lisbon, Ohio, 1,332 words.
- Third prize, Henry J. Hiles, Philadelphia, Pa., 1,330 words.
- Fourth prize, Julia F. Lyons, Tolono, Ill., - 1,312 words.
- Fifth prize, George Turner, East Cobleskill, N. Y., 1,284 words.

The winners of the remaining prizes: Mrs. H. A. Caton, Annapolis, Ind., 1,282 words; Robt. M. Black, Wilbraham, Mass., 1,263 words; Mrs. B. M. Beckhout, Saginaw, Mich., 1,235 words; C. S. W. Fox, Numidia, Pa., 1,224 words; Chas. H. Denniston, Pulteney, N. Y., 1,210 words; Mrs. Dr. Whiting, Troy, Ohio, 1,204 words; Cassort Boardman, Rushville, N. Y., 1,198 words; James Blaine Werner, Somerset, Pa., 1,192 words; Kizzie Cox, Carthage, Ind., 1,180 words; O. Staley, Charlottesville, Ind.,

1,121 words; Mrs. Jennie Hurlbut, Portville, N. Y., 1,109 words; Daisy Hodgson, New Orleans, La., 1086 words; Mrs. Dora Fulton, Bendena, Kan., 1,080 words; Geo. H. Stanbery, Hopewell, Ohio, 1,079 words; May J. Curtiss, Williamsburg, Mass., 1,075 words; Mrs. Wm. McWhan, New Orleans, La., 1,074 words; John Vetter, Eldon, Mo., 1,069 words; Lizzie E. Gray, Cape Vincent, N. Y., 1,061 words; F. B. Ayres, Augusta, Kan., 1,055 words; Emma E. Crandall, Oneida, N. Y., 1,057 words.

We examined every list, judging them according to the conditions governing the contest. [The conditions were the same as those governing the August contest—not including the first condition—as given on page 19.—THE PUBLISHERS.] We found a number of very large lists of words, but examination proved that many of the words were not formed according to the conditions; in fact, in all of the largest lists we found a great many words which were not permissible, and in order to be absolutely impartial and fair we marked out all such words. For instance, all prefix and suffix formations (except those actually found in dictionaries in general use) were cut out; likewise all proper nouns, adjectives derived from proper nouns, obsolete, archaic, old English, foreign and compound words and variants, and all other irregularities.

Respectfully submitted,
C. E. ROSENFELT.
EMMA MURRAY.
THERON McCAMPBELL.

TO OUR READERS.

In the June 1st and June 15th issues we offered twenty-five prizes for the largest lists of words which could be made from the letters found in the three words "Farm and Fireside." The contest closed June 30th. On the following day the lists were placed in the hands of three competent and disinterested judges, who soon found they had a big task before them. They labored faithfully until the evening of July 20th, when they rendered their decision as printed above.

The prizes were forwarded to the winners at once, and before this paper reaches subscribers every one of the twenty-five winners will have their prizes in their possession. As we do not know any of the winners personally, we will be pleased to hear from them upon receipt of their prizes. Judging from the names two of the first five are ladies, and all live in different states. The \$100 bicycle goes to a lady in Massachusetts. We congratulate her, and hope she will gain much health and pleasure from its use.

In this connection we want to thank all those who took part in the contest. There were quite a number who came near being prize-winners. No doubt next time they will strive a little harder and send in a prize-winning list. On page 19 will be found the particulars regarding our August contest.

PUBLISHERS FARM AND FIRESIDE.

WONDERFUL GROWTH OF OUR TIN-PLATE MANUFACTURE.

The British consul at Philadelphia writes his government on the subject of tin-plate. In the state of Pennsylvania, he says, the manufacture of tin-plate has become a leading industry. Before the McKinley tariff there were in the whole country only some half a dozen small languishing concerns engaged in that industry. Now there are one hundred and seventy-five black-plate mills. Of these sixty-four are in Pennsylvania, and with two exceptions are all no more than five years old. Improved machinery is used in them, and a general advance has been made in processes of manufacture. "It is now believed," says the consul, "that with proper fostering the time is not far distant when the United States will produce all the tin-plate required for its consumption." Pennsylvania alone is prepared to turn out this year no less than 250,000,000 pounds. And at the same time more than half the mills in South Wales are closed. Is it not evident that all these one hundred and seventy-five mills are "fakes," and that all their alleged output is smuggled in from England to deceive the tax-ridden American public? Have we not heard ten thousand challenges to the whole land to produce a single lot of American tin-plate in marketable quantity? And yet this British consul has the effrontery to make such a report as that! If it is not enough to strain international relations between the Akhoond of Swat and the Great Horn Spoon we should like to know what would be. Our private impression is that this perfidious consul has been bought up by some of the protected monopolies.

COMPLEXION.

Complexion is all a matter of digestion. Where there is good digestion a beautiful complexion is bound to follow. A well-regulated stomach invariably proclaims itself in a good-looking face, and to maintain this well-regulated condition attention to a fruit diet is recommended. Plums, blackberries, white and red grapes, oranges and peaches are among the table fruits, and it is difficult to say which is the best for a pretty complexion. If the skin is kept fresh and the diet is laxative the face will be good to look upon. People eat too much breadstuffs. A mud-colored skin is usually an indication of bad blood. A good thing for a sallow skin is a trip to the nearest mountains—walk up, rest, and climb down again.—London Family Doctor.

WESTERN HORTICULTURE.

Jack—"Where's Bill now?"
Jill—"Out West."
Jack—"What doing?"
Jill—"Raising palms."
Jack—"Doing what?"
Jill—"Raising palms—making the tender-foot throw up their hands."—Yonkers Statesman.

FREEZING THE AIR.

Air can be frozen in a temperature of 236 degrees below zero, and the product, which can be hauled and felt, burns, so to speak, with its excessive cold. Frozen air can be produced in any quantity, but its cost, five hundred dollars a gallon, is likely to prevent a large business.

Our Household.

LET US LOVE WHILE WE MAY.

Tell me you love me! That is still the best Of all the words you whisper in mine ear— A charm that ever brings me peace and rest. A talisman 'gainst grief and haunting fear. I fain would hear it o'er and o'er again. As thirsting blossoms crave the welcome rain.

Tell me you love me! That alone is sweet. Your fondest praises fill with vague alarm The heart that has so little time to beat. That knows how Chance and Change work cruel harm. The day will come, for all your pride and care, When I shall be no longer young and fair.

Tell me you love me! Dear, I doubt you not— Each earnest promise made, each vow and sigh (You'll love me always? When you have forgot.

It will be time, my love, for me to die): Yet talk no more of future golden hours; Love me to-day—to-day alone is ours!

Tell me you love me! Life has been so sad, So full of ceaseless toil, of crushing care; Too grave am I, forgetting to be glad, Half fearful all your joyousness to share. Your love alone can make amends divine And chase the shadows from this heart of mine.

Tell me you love me! Have I lived to know The precious gift that crowns a woman's life?

Can it be true that you will stoop so low To take me, poor and humble, for your wife?

You love me, love me, is your sole reply? Then is there no one worthier than I?

Tell me you love me! Life has been so sad, Let us not tire of tender words and true; The realms of Silence all too near doth lie, And sweet endearing words are all too few, Since I am yours and you are mine to-day, Oh, let us love each other while we may!

HOME TOPICS.

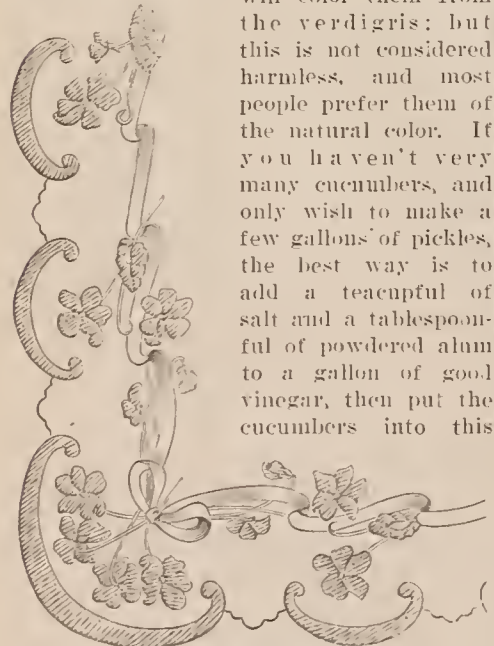
PICKLES.—August and September is the time for making pickles. If you wish to put cucumbers into brine, cut them every day, leaving a bit of the stem on the cucumber, wash in cold water, and pack them in a large stone jar, a keg or a barrel if you have a great many. Put a layer of coarse salt in the bottom, then a layer of cucumbers another of salt, and so on. No water is necessary, as the cucumbers are wet from washing, and the juice will be drawn out and make the brine.

Put a thick cloth over the cucumbers, and on this a loose cover with a weight to keep it down. Every day when you add more cucumbers and salt rinse out the cloth, and put it over again.

If the cucumbers are not kept under the brine they will become soft, and spoil.

When the cucumbers are wanted for use they should be soaked in cold water over night, and in the morning put them into fresh water, and let it heat slowly until nearly boiling. Drain them, pack in a jar, and pour over them boiling-hot vinegar into which you have put a teacupful of sugar and spices, if liked.

These pickles will not be green unless you soak them in a copper kettle, which will color them from the verdigris; but this is not considered harmless, and most people prefer them of the natural color. If you haven't very many cucumbers, and only wish to make a few gallons of pickles, the best way is to add a teacupful of salt and a tablespoonful of powdered alum to a gallon of good vinegar, then put the cucumbers into this



as soon as picked and washed. Keep a weight on them, and a paper tied over the top of the jar. They will keep perfectly, and if at any time you wish to spice some of them you have only to take them out of this vinegar into another jar

and pour the hot, spiced vinegar over them.

FOR THE BABIES.—August is a trying month for babies. Dress them comfortably, keep them clean by frequent bathing in tepid water, give them plenty of sleep, plenty of fresh air, as near as possible the food that nature furnishes, and guard against all sudden chills. These are the essential rules in keeping the babies well. To keep the baby dressed comfortably one must watch the changes of temperature, and put on or take off clothing accordingly. It is a safe rule to keep flannel over the bowels summer and winter until a child is three years old. In summer it need be only a wide band of soft, thin flannel, loose, and held in place by broad linen straps over the shoulders.

Small fruit, as blackberries, raspberries, etc., should never be given to a little child, as the seeds are apt to cause serious bowel trouble. When a child is nine or ten months old a little ripe sour apple scraped fine is beneficial. An old physician told me this, and I found it the best bowel regulator for teething children. Do not, under any circumstances, make use of the so-called soothing-syrups, which are but preparations of opiates. They injure the child both physically and mentally.

An excellent remedy in bowel trouble from indigestion, and which I have seen tried with best results in dysentery, both for children and adults, is made as follows: Take two tablespoonfuls of pulverized Turkey rhubarb and one teacupful



of white sugar; put them into a pint cup, and fill the cup nearly full of hot water. Set it on the back part of the stove, and let it simmer slowly for an hour; then add a tablespoonful of soda, and when nearly cold enough, extract of peppermint to give it a pleasant taste. Put it into a bottle, and cork tightly. Dose, one to two teaspoonfuls every hour; for infants, ten or fifteen drops.

This is one of the most harmless home remedies, and especially valuable when at a distance from a good physician.

MAIDA McL.

VIOLET DESIGNS.

We have this time two very lovely designs in violets by Miss Ida Bennett. The round one can be used for a table-center or for a round table. The corner design will be found useful for a lunch-cloth or a bureau-scarf.

Violets are best embroidered in the red-purple, using white for the ribbons and white and green or white and lavender in the border. Use a quiet-toned green and only one shade for the leaves and borders.

L. L. C.

NECK ACCESSORIES, ETC.

These neck-finishings can be made separate from the dress, and can do duty for several. Make the foundation of sheer India linen, and gather the lace upon it. Finish the neck with a band and ruffle of lace.

A SUMMER WAIST.—This is made of the string-colored batiste over red silk and trimmed with rosettes and crushed belt of dark green velvet. Rhinestone buckles

are used in the rosettes. The openings at the side, neck and wrists are finished with voluminous lace ruffles. Five yards would be necessary to trim it as full as shown in the illustration.

This is a very good way to renovate a silk waist that is a little worn, using it under the batiste. Green is particularly effective with this string color, as it looks so cool.

L. L. C.

SULTRY SUMMER COMFORT NOTES.

The almost unendurable heat of summer days, with their myriads of flies and mosquitoes and discomforts of a general nature, calls into play the use of all manner of devices for keeping cool, and for saving not only of food stuffs, but of strength and patience as well.

It is of personal comfort that I am thinking especially this sultry day, and it is of things for personal comfort I will talk first. Of other things a little further on. For, like the majority of this prosy world of practical people, I earn my bread by the sweat of my brow; and if I must work steadily on despite the fact that thermometers are every day threatening to burst with the intensity of this midsummer heat, I purpose to work in as great a degree of comfort as possible. To this end I have fashioned and refashioned my clothes.

Loose gowns to work in I have always worn and advocated, and this manner of "hygiene" I have preached, as it were, from the horse-top, as well as many other

their light weight upon the shoulders, I am prepared for the work in whatever form it comes. It is all a comfort personified. No more banded skirts, even for special dress-up occasions.



A something that is worth passing on to the household readers I learned of but last season. And it is a something that I have found such a decided help that I wish every housewife to profit by my description. This "Yankee ingenuity" article of use is known as a "fly-slapper," and is well named. At my home these articles (for one is wanted in every room in the house, and can readily be afforded) are considered a very valuable acquisition to our housekeeping.

This might be an opportune time for mentioning my advocacy of the afternoon nap for every wife and mother, and my own strict adherence to the rule. My nap is a daily necessity. Moreover, a luxury in which I persistently indulge, no matter "the times" are hardly warrantable of an indulgence in luxuries. But did every tired-out housewife indulge herself after the same manner, I am assured they would find it a paying investment of time in the saving of time and strength for the work that must be done in every home. Denied the average amount of health and endurance conferred upon the average mortal, there is nothing left to be done but to plan systematically, thus making the most of the little strength with which I am endowed. Should there be a fly in the room, it is impossible to sleep a moment, but since the introduction of the fly-slapper in question there is no further trouble from this source.

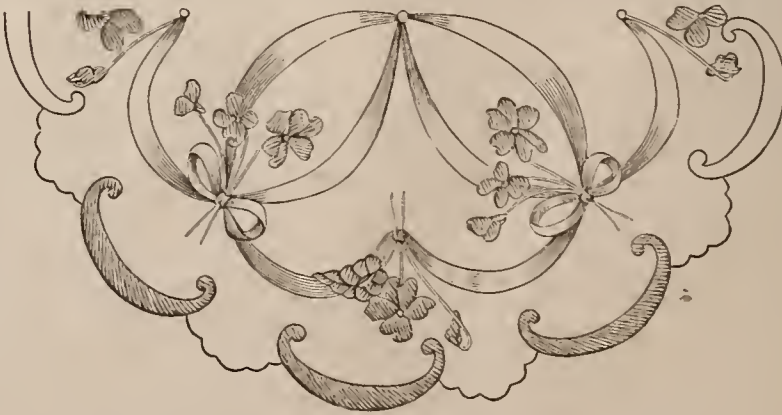
FLY-SLAPPER.—It consists of a piece of harness-leather cut in somewhat a kite-shaped fashion, and measures six and one half inches from the top to the inch-wide place at the bottom, where it slips into a wooden handle. This wooden handle is a smooth stick of any desired length, split down for one and one half inches, the leather slipped in and held in place by tacking securely with tacks or small clinch-nails. It is five and one half inches wide at the widest place, and the leather is quite punctured with holes. It is a novel and valuable ingenuity, and a death-dealer in reality. My harness-maker was easily induced to leave his more important work and help me to carry out my design, which I carried to him in paper pattern form.

Waste pieces of leather were employed, and the razor-like cutter fashioned these pieces into available shape very fast. I buy all my robes, dusters, harness and fly-nets of said harness-maker, and he

kinds. I pity the woman so deluded as to believe that close-fitting gowns and "stays" she must wear, regardless of season or occupation. Her husband and son will not be burdened with superfluous and uncomfortable garments, and why should she? And she is mistaken in the supposition that she cannot look well in clothes that add to, rather than detract from, her every-day comfort. Personally, I was annoyed by the gauze vests worn in summer, for they cling so persistently. And skirt-bands about the waist were no less an annoyance. But this summer I am comparatively bondage free, and correspondingly relieved, and it was last summer that I began to realize that both bands and gauze vests could be dispensed with entirely.

My white skirts were taken from their bands and put upon low-necked, sleeveless waists, these waist-supports being lengthened to suit depth of skirts. For some of my skirts were flounced onto a yoke top. The waists are so loose-fitting that they scarce touch the body, and the entire weight of the skirt swings from the shoulders. With a loose-flowing gown (they are pretty, too), and if in the kitchen one of the large loose aprons previously described, that also rest

very good-naturedly responded to my request, inadvertently remarking at the same time that he was glad to learn of the article himself. One of them made and tried will lead to the making of several in any home. They become listed with



Our Household.

TO A SWEET-PEA.

Sweet little flower, who cares to sing thy praise?
 Who crowns thee with the gem of glowing words?
 Thou'rt but a simple thing of every day,
 Familiar as the myriad-numbered birds.

Thou canst not match the lily's purity:
 The royal rose bedims thy utmost glow;
 And far Japan has sent her fairest queen
 To bid thee bow thy head and bend it low.

Thou'rt built of common earth; no royal blood
 Flows richly through thy humble, peasant veins;
 Not thine the palace, better thou shouldst keep
 Thy lowly place beside the village lanes.

And yet, sweetheart, thou hast a fairer place
 Than princely blood or grace could give to thee—
 A quiet resting-place in gentle hearts
 That love thee for thy sweet simplicity.

—Chas. I. Junkin.

A LEMON SYMPOSIUM.

"Isn't that rich!" exclaimed one of the company, holding toward the light a glass of egg lemonade.

"Yes, and tastes as good as it looks, besides being more wholesome than coffee," replied the doctor's wife.

Our hostess was besieged for the recipe. "Make plain lemonade," said she, "then add beaten eggs, whites and yolks together; one egg to three glasses is a good proportion. Be sure to add the egg last," she cautioned, rising to pass the cheese crackers again, "otherwise the acid will curdle it." A dozen of us, members of the Wednesday Afternoon Reading Club, were seated in a cozy parlor partaking of the usual light luncheon.

It is a fact never openly acknowledged that we grow a bit inattentive toward intermission and cast furtive glances at the clock, wondering between names and dates what the fare will be. And when the president formally announces, "It is recess, ladies," books and needlework are dropped with alacrity and tongues fly for "we sit to chat as well as eat." During the ten years of our existence we have traveled in many lands and learned of many people through the world's best writers, but have also stored lore of quite a different sort. We number old housekeepers, young housekeepers and prospective housekeepers, and the practical lessons of home-making given and taken over our cups alone justify the union.

Cookery is the most frequent home topic, and at the meeting in question the egg lemonade started the domestic discussion. Our youngest, a bride of six months, wanted to know how to select lemons, having had such poor luck buying; they were sure to be dry or bitter. "My experience," said an older member, "has taught me to avoid those light in weight and that have thick rinds, resisting pressure. A good, juicy lemon is heavy, soft and thin-skinned."

"And how is the best way to keep them?" continued the bride.

"What do you want to keep them for?" interrupted another. "Lemons are to use, the more the better."

"But suppose one lives ten miles from a lemon?" said our president. "Even here by a good market it pays to get a quantity against the season of high prices. I couldn't afford them all the year otherwise. If wrapped separately in tissue-paper and kept in a cool place they will remain fresh a long time. Another method is to immerse them in a jar of water; a cool location and a daily change of water are essential."

"But I dread using lemons," said a young housekeeper; "it's so much trouble to get the parts you want and not get what you don't want."

"Oh, that's easy enough," said the bride. "Grate what you want of the peel, then use a squeezer, one that separates the juice from the seeds; those made of glass or wood are preferable to metal ones."

"I know that is considered the way

now," observed an elderly member, "but I think a lemon well rolled and squeezed by hand furnishes better-flavored juice, for the reason that the skin is not subjected to pressure sufficient to extract its flavor also. Straining through a cloth frees from seeds and bits of fiber."

"I'm a regular interrogation-point this afternoon," said the bride, "but I wish some one would tell me just how to make common, plain lemonade."

"The juice of half a lemon and one teaspoonful of sugar to one glassful of water is a good proportion," replied our hostess. "A little grated peel gives a rich flavor, but should be added just before using, otherwise the beverage will be bitter. I frequently use lemons for garnishes. Divide a slice into four pointed sections, and use with salads and similar dishes; alternating with parsley gives a pretty effect."

"Lemons are so medicinal, too," remarked one who was with us after long absence. "Lemon-juice and hot water cured me of nervous dyspepsia, and there's nothing better for rheumatism. Take a cupful of hot water and juice of one fourth of a lemon, without sugar, half an hour before meals and at bedtime."

"Yes, and they are excellent for toilet purposes," added another. "Just look at my hands. I do my work, but they're white and smooth. I save remnants and rub upon them to remove stains, and at night use a mixture of lemon-juice and glycerin."

Our white-haired, eldest member had said nothing, when some one moved that she tell all she knew about lemons.

"I was thinking," said she, "what a long line there would be if all the lemons I've used could be placed in a row. I've kept house many years and reared a large family, and one of my best allies has been the lemon. Flax-seed tea added to lemonade sweetened with honey I've used with excellent effect for a cough or a cold; and for an obstinate cough the continued use of lemon-juice and glycerin, equal parts, is curative; much better than the glycerin and rum preparation, I think. For hoarseness and croup try loaf-sugar thoroughly saturated with the hot juice from a roasted lemon."

"The juice of a lemon and one and one-half pints of clear oatmeal gruel sweetened to taste make a nutritious and palatable food. A thin slice of lemon, a little of the juice and an extra lump of sugar added to a cupful of iced tea make a refreshing drink. Those unable to take vinegar can substitute lemon-juice; it is particularly savory with baked beans. Iron rust can be removed with a mixture of lemon-juice and salt; also mildew. After applying place the article on grass or snow in the sun."

"Lemon-juice will whiten frosting, and improve its consistency and flavor."

"It's past time to begin the second reading," said the president. "I hoped to finish the *Odyssey* to-day. Poor Penelope's been kept up-stairs weaving and raveling and crying long enough; it's time her suspense ended. For my part, I think Ulysses could have gotten back in fewer than twenty years, notwithstanding his mishaps. He was too well entertained with roast pig and wine and things to hurry home. Mrs. Gordon, will you begin?"

HELEN HUNTINGTON BULLARD.

TESTED RECIPES.

DEVIL'S FOOD.—Part first.

1 cupful of light brown sugar,
 1/2 cupful of butter,
 2 cupfuls of flour,
 1/2 cupful of sweet milk,
 3 yolks of eggs,
 1 teaspoonful of soda sifted in flour.

Part second.

1 cupful of grated chocolate,
 1 cupful of light brown sugar,
 1/2 cupful of sweet milk.

Set on the back of the stove to dissolve, but do not let it boil; take off when dissolved, and let cool, and then stir into first part. Use the flour after you have put in part second.

CREAM PUFFS.—One pint of water and one half pound of butter boiled together; while boiling stir in three fourths of a pound of flour; let it thicken on the fire; when cold, add one teaspoonful of cold water and ten eggs, stirring in one at a time without beating, then drop on tines some distance apart and two inches in diameter; bake in a very quick oven twenty minutes.

IVORY SOAP

Have you never taken a bath with Ivory Soap? You have missed a luxury. The smooth creamy lather is soothing and refreshing. IT FLOATS

FOR THE CREAM.—

2 cupfuls of sugar,
 4 cupfuls of milk,
 3 eggs.

Boil the milk, beat the eggs well, add sugar and a little flour, and stir this mixture into the milk while boiling; let it just scald, stirring constantly; take from the fire, and when cool, make a slight incision in the puffs, and fill with cream. The secret of having them puff lies in not beating the eggs at all, and stirred just enough to make smooth.

SCRIPTURE CAKE.—

1 cupful of butter, Judges v. 25;
 3 1/2 cupfuls of flour, I. Kings iv. 22;
 2 cupfuls of sugar, Jeremiah vi. 20;
 2 cupfuls of raisins, I. Samuel xxx. 12;

2 cupfuls of figs, I. Samuel xxx. 12;
 1 cupful of water, Genesis xxiv. 17;
 1 cupful of almonds, Genesis xliii. 11;
 Little salt, Leviticus ii. 13;
 6 eggs; Isaiah x. 14;
 1 large spoonful of honey, Exodus xvi. 31;

Sweet spices to taste, I. Kings x. 2.

Follow Solomon's advice for making good boys, and you will have a good cake. Prov. xxiii. 14. Sift two teaspoonfuls of baking-powder in the flour; pour boiling water on the almonds to remove the skins, seed raisins, and chop figs. Makes one large or two small cakes.

APPLE PUDDING.—Pare and slice fine three or four good cooking-apples in a baking-dish, put over them sugar enough to sweeten, one cupful of flour, work a little butter and a little salt through the flour and one teaspoonful of baking-powder, stir up with sweet milk to make a thin batter; pour over the apples and bake one half hour. Serve with cream and sugar.

RUBY.

RENOVATING OIL-STOVES.

Our three kerosene-stoves have done us good service for five summers, and often one has been called into requisition to help get a hurried and early breakfast at other seasons of the year. But one was absolutely of no use, and the other two so shaky and worn that cleaning them and putting in new wicks did little good. However, the rackets were in order, and as my pocket-book was low, somehow, these two stoves must be made to serve us for this summer. I should put them in order as soon as possible.

Meantime Philetus worried my very soul by insisting on lighting them after they had been given up for the time being, even going so far as to drag them out of the obscure shelter of the bottom of the red cupboard, and insisting on their use to hurry up the coffee. To understand the state of mind in which he does this, remember he is a New Jersey commuter half a mile from the station.

When one bright spring morning he peeped into the kitchen and saw the two victims of his iconoclastic furies getting breakfast, and going about the work in good style, no smoke, no odor, no sputtering—new stoves could not have done the work better, although they might have been prettier to look at—

"Good gracious, Polly!" said Philetus, much subdued, "what have you done to the stoves?"

"Cleaned them up and given them a chance to show their metal."

"Look all right now," he ventured, doubtfully.

"Yes, and they've been going that same way for a week. The best of it is we needn't buy oil-stoves this summer."

Philetus smiled genially, . . . his breakfast, departed, and straightway forgot what manner of thing an oil-stove was.

Shall I tell the tale of their renovation? For several days I saved the water in which potatoes had been boiled, and putting the stoves into a kettle sufficiently

large to hold one at a time, covered each with potato-water, and boiled them well. Then each was scoured, using a little scouring-soap, and dried.

Next day, having saved the first waters off stewed pie-plant, I boiled the stoves again in this sour, vinegar-like liquor.

I boiled the new wicks separately in pie-plant water, adding a little salt.

The stoves have been working well all summer. One is now giving out in the rackets, and I shall sell it for old iron this fall. I shall need to spend no money for oil-stoves until early next spring.

FLORENCE BARKER.

A CORN CHAPTER.

When corn is in season you will enjoy trying these recipes to vary the daily bill of fare:

CORN OYSTERS.—

6 ears of grated sweet corn,
 3 well-beaten eggs,
 1 tablespoonful of melted butter.

Stir into a batter, and season to taste. Use part lard and part butter when frying, have it sizzling hot when you place the oysters in to fry. Make them of one tablespoonful of the batter. Garnish with parsley when served.

CORN OMELET.—First part corn—Four ears of sweet corn thinly cut from the cob and then the juice scraped off, add a little milk or cream, and cook for a few minutes until done; butter and season to taste.

Second part omelet—Separate yolks and whites of four eggs, add one cupful of milk to the well-beaten yolks, one teaspoonful of corn-starch and the whites whipped to a froth, and add the corn. Put a small piece of butter into your frying-pan; when warm, pour in your omelet, gently move it when it begins to set, with a silver fork held upright in it; when brown on the under side, loosen from the pan, fold over one half, and slide it out onto a platter. Do not put it into too hot a pan at first, and never leave it a moment until it is on the table.

BAKED CORN.—Eight ears of grated sweet corn, four well-beaten eggs, one tablespoonful of corn-starch, one tablespoonful of sugar, pepper and salt to taste; put into a buttered baking-dish, cover with fresh milk, and bake in a slow oven for thirty minutes. The addition of a little sugar to all cooked corn is a great improvement to it.

CORN ON COB.—Drop this into boiling water, and cook ten minutes. Do not put salt into the water, as it spoils the appearance of it.

REX.

ASTHMA AND HAY-FEVER CURE.—FREE.

A sure specific cure for Asthma and Hay-fever is found in the Kola Plant, a new botanical discovery from the Congo River, West Africa. Many sufferers report most marvelous cures from its use. Among others, Mr. Alfred C. Lewis, Editor of the *Farmer's Magazine*, and Rev. J. L. Combs, of Martinsburg, West Va., were completely cured by the Kola Plant after thirty years' suffering. Mr. Lewis could not lie down at night in Hay-fever season for fear of choking, and Mr. Combs was a life-long sufferer from Asthma. Hon. L. G. Clute, of Greeley, Iowa, writes that for eighteen years he slept propped up in a chair, being much worse in Hay-fever season, and the Kola Plant cured him at once. It is truly a most wonderful remedy! If you are a sufferer you should send your address to the Kola Importing Co., 1164 Broadway, New York, who to prove its power will send a Large Case by mail free to all who need it. All they ask in return is that when cured yourself you will tell your neighbors about it. It costs you nothing and you should surely try it.

\$100 IN CASH PRIZES.

The winners in the August prize contest will receive a \$100 bicycle and \$100 in cash as prizes. There are six prizes. See page 19 for full particulars.

40 Cent Patterns for 10 Cents

These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only 10 Cents Each.

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there

being a separate pattern for every single piece of the dress. All orders filled promptly.

For ladies, give BUST measure in inches. For SKIRT pattern, give WAIST measure in inches. For misses, boys, girls or children, give both BUST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded.

To get BUST and BREAST measure, put the tape measure ALL of the way around the body, over the dress close under the arms.

Special price of each pattern, 10 cents.

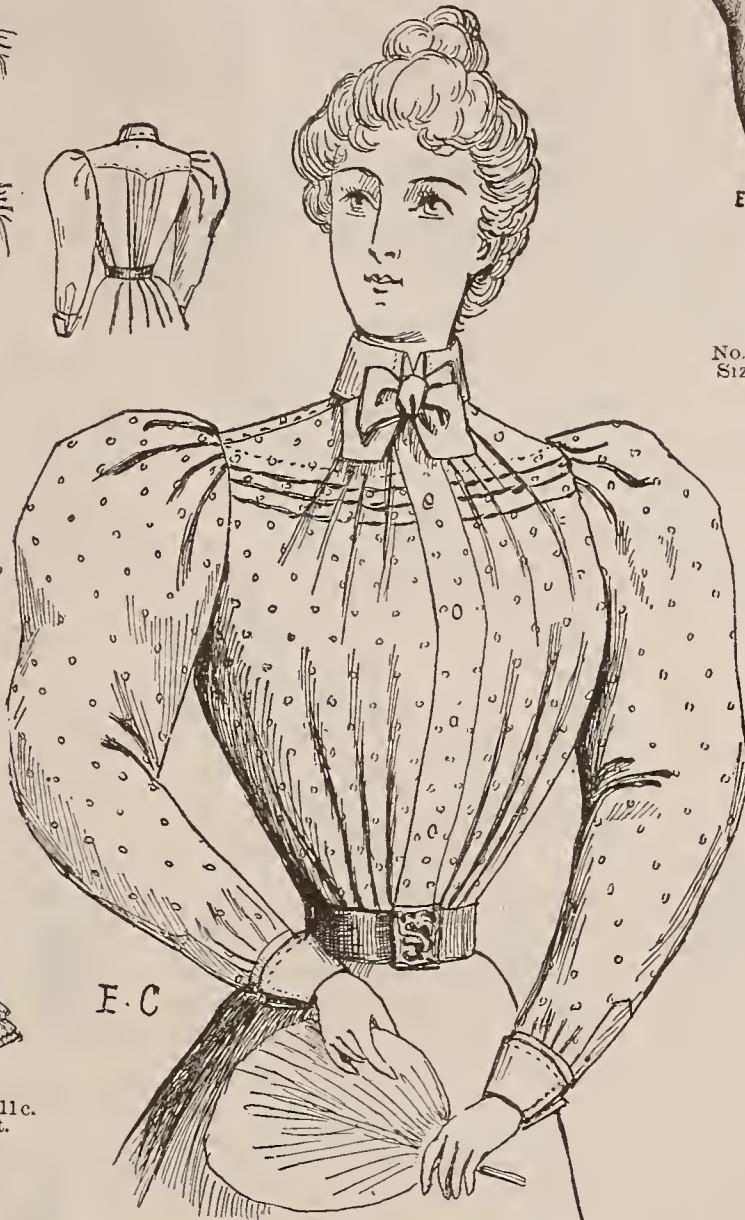
Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.



No. 7107.—INFANTS' ROBE, WITH ROUND, SQUARE AND POINTED YOKES. 10c.



No. 7125.—LADIES' ETON JACKET. 10c. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7046.—GIRLS' DRESS, WITH HIGH OR LOW NECK. 11c. Sizes, 6, 8, 10 and 12 years.

No. 7137.—MISSSES' BLAZER. 10 cents. Sizes, 12, 14 and 16 years.

No. 6959.—MISSSES' FOUR-GORED SKIRT. 11c. Sizes, 12, 14 and 16 years.

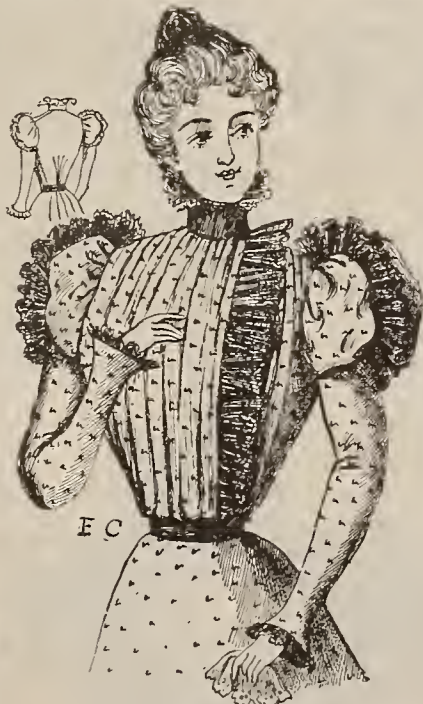


No. 7118.—INFANTS' LONG COAT, WITH CAPE AND HOOD. 10 cents.

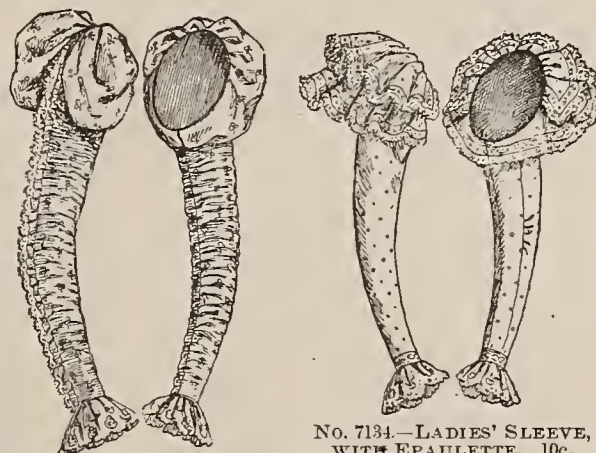


No. 7143.—LADIES' UMBRELLA SKIRT. 11c. Sizes, 22, 24, 26, 28 and 30 inches waist.

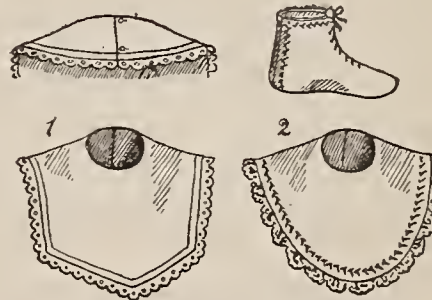
No. 7089.—LADIES' SHIRT-WAIST, WITH TUCKED FRONT. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 6864.—LADIES' WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7134.—LADIES' SLEEVE, WITH EPAULETTE. 10c. Sizes, 32, 36 and 40 inches bust.



No. 7105.—INFANTS' BIBS AND SHOE. 10 cents.

No. 7126.—LADIES' SLEEVE. 10 cents. Sizes, 32, 36 and 40 inches bust.



No. 7033.—BOYS' COSTUME. 10 cents. Sizes, 2, 4 and 6 years.



No. 7144.—LADIES' UMBRELLA DRAWERS. 10 cents. Sizes, 22, 24, 26, 28 and 30 inches waist.



No. 7117.—INFANTS' CAMBRIC SKIRT. 10 cents.



No. 7101.—LADIES' BOLEROS. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 6459.—LADIES' AND MISSSES' SUNBONNETS. The two patterns for 10 cents. Cut in two sizes—Misses' and Ladies'. No. 7064.—MISSSES' SHIRT-WAIST. 10c. Sizes, 12, 14 and 16 years. No. 7060.—Same Pattern—Ladies' Size. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.

WE HAVE OFFICES IN NEW YORK CITY, SPRINGFIELD, OHIO, AND CHICAGO, ILLINOIS.

NOTICE.—Send all orders for patterns direct to our central office, to FARM AND FIRESIDE, SPRINGFIELD, OHIO, where our stock of patterns is kept.

Our Sunday Afternoon.

ONE DAY AT A TIME.

One day at a time! That's all it can be; No faster than that is the hardest fate; And days have their limits, however we Begin them too early and stretch them too late.

One day at a time! Every heart that aches Knows only too well how long that can seem; But it's never to-day which the spirit breaks; It's the darkened future, without a gleam.

One day at a time! A burden too great To be borne for two can be borne for one; Who knows what will enter to-morrow's gate? While yet we are speaking all may be done.

One day at a time! When joy is at height— Such joy as the heart can never forget— And pulses are throbbing with wild delight, How hard to remember that suns must set.

One day at a time! But a single day, Whatever its load, whatever its length; And there's a bit of precious Scripture to say That, according to each, shall be our strength.

One day at a time! 'Tis the whole of life: All sorrow, all joy, are measured therein, The bound of our purpose, our noblest strife, The one only countersign, sure to win! One day at a time! It's a wholesome rime, A good one to live by, A day at a time. —Heleu Huut Jackson.

THIS IS HOW THEY RISE.

A YOUNG woman found employment in a queensware-store. She immediately began a course of study in her leisure moments upon glassware and china.

In a millinery establishment the young woman who found time for reading a book or two on colors and their harmonious combination, found her own taste greatly improved and her ability to please patrons much greater.

The young woman who, to earn an honorable living, went into a lady's kitchen, and instead of gossiping every evening found time to read a few good books and household papers, was soon too valuable a housekeeper to be kept in a subordinate position in the kitchen.

Of course, this sounds like an old-fashioned Sunday-school book, but the fact remains that there is always "room at the top" and that no unusual amount of intelligence is needed to reach the top.

SIXTY SECONDS MAKE A MINUTE.

Why is an hour divided into sixty minutes, each minute into sixty seconds, etc.? Simply and solely because in Babylonia there existed, by the side of the decimal system of notation, another system, the sexagesimal, which counted by sixties.

four parasangs, or seven hundred and twenty stadia, or three hundred and sixty degrees. This system was handed on to the Greeks, and Hipparchus, the great Greek philosopher, who lived about 150 B. C., introduced the Babylonian hour into Europe.

PLENTY TO EAT.

When at its zenith, the Roman empire laid all the barbaric countries of the world under contribution to supply the tables of its nobles and wealthy citizens with the fine luxuries of life.

But, excepting Nero's dish of peacock tongues and Cleopatra's cup of wine with the dissolved pearls in it, the menu of our modern banquets would compare favorably with those spread in the times when gluttony, licentiousness and greed for luxury were insidiously sapping the strength of Rome.—George E. Walsh, in Lippincott's.

ISLANDS OF NEWS IN OCEANS OF INK.

W. W. Canfield, city editor of the Utica "Observer," delivered an address on the evening of February 11th on the subject "Islands of News in Oceans of Ink."

AIR AND ATHLETICS.

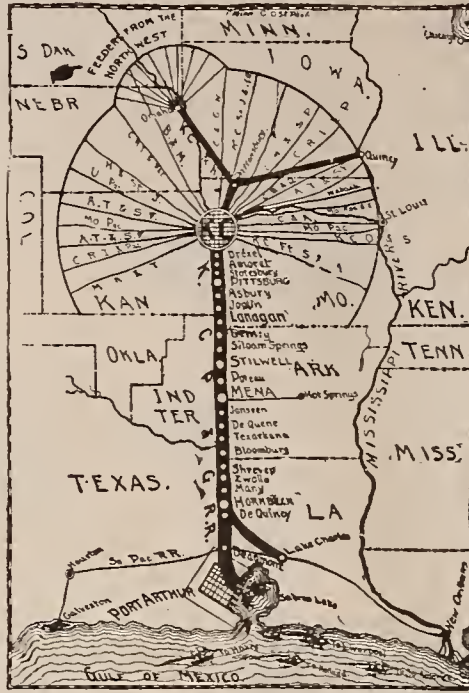
What a man of to-day needs most is not athletics in a gymnasium, but plenty of fresh air in his lungs. Instead of a quantity of violent exercise that leaves him weak for several hours afterward, he needs to learn to breathe right, stand right and sit right.

TRIAL FREE.

If you have rheumatism, try that simple remedy which cured me. Trial package and other information free. Address John A. Smith, Dept. H, Milwaukee, Wis.

HERE'S A NEW COUNTRY!

NEW HOPES! NEW OPPORTUNITIES! LAND OF SUNSHINE AND—PLENTY! MILD CLIMATE, FERTILE SOIL AND CHEAP LANDS!



The building of the Kansas City, Pittsburg & Gulf Railroad, an air line from Kansas City to Port Arthur, has opened up a country in western Missouri and Arkansas and Louisiana that cannot be excelled as an agricultural and fruit growing country.

PORT ARTHUR,

the Southern and Seaport terminus, is the best place in the United States today to invest or to go into business. Through passenger trains leave Kansas City for Port Arthur daily.

Study the map and you will agree a large city must be built at Port Arthur; nearest seaport to Kansas City by 100 miles. Cut this out and mail to address below and receive fine illustrated pamphlets.

F. A. HORNBECK,

Land Commissioner K. C. P. & G. R. R. and General Manager Port Arthur Townsite Co., Kansas City, Mo.

BRASS BAND

Instruments, Drums, Uniforms, Equipments for Bands and Drum Corps. Lowest prices ever quoted. Fine Catalog, 400 Illustrations, mailed free; it gives Band Music & Instructions for Amateur Bands. LYON & HEALY, 30 Adams St., Chicago, Ill.

FRANKLIN COLLEGE NEW ATHENS, O. 73d yr. Board, tuition, room and books, \$2.80 to \$3 a wk; total cost \$140 a yr; 8 courses: course for D.D., Ph.D., &c; catalog free, with plan to earn funds. W. A. WILLIAMS, D.D., Pres.

BUCCIES! SEND FOR CATALOGUE "C" MONTGOMERY WARD & CO. CHICAGO...

DO NOT buy a bicycle until you have learned discounts on E. B. Winger's Special 1897 model. Station R, Chicago, Illinois.

600 Second Hand BICYCLES to close out. All makes, GOOD AS NEW, \$5 to \$15. NEW, HIGH GRADE '96 Models, fully guaranteed, \$16 to \$24. '97 Models \$25 to \$30. Shipped anywhere on approval. Special Clearing Sale. EARLY A BICYCLE by helping advertise us. We will give one agent in each town FREE. Write at once for our Special Offer. E. F. MEAD CYCLE CO., Wabash Ave., Chicago, Ill.

DON'T BE HARD UP \$2,000 A YEAR EASY. Gold, Silver, Nickel & Metal Plating. Gents and Ladies at home or traveling, taking orders, using and selling Prof. Gray's Plating. Plates, Watches, Jewelry, Tableware, Bicycles and all metal goods. No experience, heavy plate, modern methods. We do plating, manufacture outfits, all sizes. Guaranteed. Only outfits complete, all tools, fixtures, materials, etc. ready for work. We teach you the art, furnish secrets and formulas free. Write to day. Testimonials, samples, etc., FREE. T. GRAY & CO., PLATING WORKS, Columbus, O.

Will \$500 Help You Out? If so, you can have it! We offer you the Sole Agency for an article that is Wanted in Every Home and indispensable in Every Office, something that SELLS AT RIGHT. Other articles sell rapidly at Double the Price, though not answering the purpose half so well. You can make from \$500 to \$700 in three months, introducing it, after which it will bring a Steady, Liberal Income, if properly attended to. Ladies do as well as men, in town or country. Don't Miss this Chance. Write at once to J. W. JONES, Manager, Springfield, Ohio.

MUST HAVE AGENTS AT ONCE to sell Sash Locks and Door Holders. Sample Sash Lock free for two-cent stamp. Immense; better than weights; burglar proof. \$10 a day. Write quick. Address BROHARD & CO., Box 55, Philadelphia, Pa.

THIS ELEGANT WATCH The handsomest and finest-looking solid 14k gold filled All American Watch on Earth. To introduce it, one in every county or town furnished reliable persons (either sex) who will promise to show it. Enclose stamp to WILLIAMS WATCH CO., 104 Fifth Ave., CHICAGO, ILL.

OPIUM HABIT AND DRUNKENNESS Cured in 10 to 20 days. No Pay till cured. DR. J. L. STEPHENS, Lebanon, Ohio.

MENTION THIS PAPER WHEN ANSWERING ADVERTISEMENTS.

\$50 MACHINE FOR \$19.50 FREIGHT PREPAID.

Including a Year's Subscription to Farm and Fireside.

To prove that we sell the best sewing-machine in the world for the money, we will send, freight prepaid, our Superior Machine to any railroad station in the United States east of the Rocky Mountains for \$19.50, spot cash in advance. The Superior is sent on 30 days' trial, and if not perfectly satisfactory it may be returned at our expense, when the full amount of your money (\$19.50) will be refunded.

Freight Paid by Us.

Sent on 30 Days' Trial

Has a Full High Arm. By this we mean as high as the highest arm on any \$50 machine—55 sq. in. of space under the arm. Self-threading Shuttle. Self-setting Needle. Automatic Bobbin-winder. Adjustable Hand-wheel. Automatic Take-up. Double Positive Feed. The Best Shuttle-carrier. The Best Tension-liberator. Makes the Double Lock-stitch. Has 14 Steel Attachments. 24 Accessories, including 12 Needles and 6 Bobbins.

THE HEAD is handsomely decorated and finished in polished black enamel and nickel-plated. The bed-plate is firmly hinged and let down flush with the cabinet-work. THE STAND is strong and graceful. Furnished with oil-cups and nickel-plated casters. The treadle and drive-wheel are hung on adjustable steel centers. The stand and woodwork are securely fastened together. THE CABINET-WORK far exceeds that usually sold. Only best material and finest workmanship used. Has four side drawers and one long center drawer. Made in highly polished oak or walnut. Name your choice, or we will send oak. 5 YEARS' GUARANTEE Every machine is guaranteed for five years by the factory, which is a large, rich concern of long standing, with a reputation for fair and honest dealing. Every part and piece of the entire machine is scientifically true, and made from the best quality of material. It runs easy, smooth and noiseless through everything. It is a high-grade machine and will last a lifetime.

Do not fail to give full shipping directions. Address FARM AND FIRESIDE, Springfield, Ohio.

33 Good Books

THREE OF THE BOOKS CONTAIN 220, 258 AND 279 PAGES RESPECTIVELY. IF YOU CAN SELECT THEM YOU WILL GET A TREMENDOUS BARGAIN.***

This list of books includes some of the most popular works in the English language. Each book is 5 1/2 inches wide by 7 1/2 inches long. In mentioning this premium elsewhere we do so as "5 GOOD BOOKS."

FIVE BOOKS COUNT AS ONE PREMIUM.

No. 955. **The Scarlet Letter.** By Nathaniel Hawthorne, one of the greatest authors America has produced. It is a romance of intense interest, exhibiting Hawthorne's extraordinary power of mental analysis and graphic description. The entire book is of a high moral character.

No. 964. **The Greatest Thing in the World.** By Henry Drummond. This book is on love as taught by Christ and the disciples.

No. 962. **Peace Be With You.** By Henry Drummond. This book might be called a short treatise on Rest, Joy, Peace, Faith and Light.

No. 963. **Changed Life.** By Henry Drummond. If you want a practical solution of the cardinal problem of Christian experience, read this book on "Changed Life."

No. 999. **The Idle Thoughts of an Idle Fellow.** By Jerome K. Jerome. For that common but extremely unpleasant complaint, "the blues," this book is a pleasant and effective cure. It is a royal treat of wit and humor.

No. 993. **Mrs. Caudle's Lectures.** This is a collection of thirty-six of the best lectures by this humorist. If you want something that will make you laugh until your sides ache, get this book. It is full of the most ridiculous fun from cover to cover. It drives away the blues.

No. 971. **John Ploughman's Pictures.** By the late Rev. Charles H. Spurgeon, the great London preacher. This book can be read by every member of the family over and over with increasing pleasure and profit, and every mother who has a son that must face the temptations of the terrible curse of drink will place a good weapon in his hands when she induces him to read this work.

No. 969. **Short Stories.** A book containing a number of short stories of adventures, which will be eagerly read by boys and girls.

No. 961. **Dr. Jekyll and Mr. Hyde.** By R. L. Stevenson. The action and the style of writing combine to make it a book so fascinating that criticism of its possibilities or impossibilities are unthought of in the absorbing interest of the story, and later, when released from the thrall of the writer's genius, one is still lost in admiration of an author who can control the thoughts and feelings of his readers, and by his magic pen almost imbue with life the creations of his own imagination.

No. 995. **The Battle of Life.**

No. 980. **Oliver Twist.**

No. 997. **Two Ghost Stories, and Other Christmas Tales.**

No. 998. **Three Christmas Stories.**

No. 982. **A Tale of Two Cities.**

No. 994. **A Christmas Carol.**

No. 954. **A Goblin Story.**

No. 981. **Great Expectations.**

No. 953. **The Cricket on the Hearth.**

No. 996. **The Haunted Man.** The above ten books are by Charles Dickens.

No. 960. **A Bird of Passage.** By Beatrice Harraden, author of "Ships that Pass in the Night."

No. 958. **The Merry Men.** By R. L. Stevenson. A story that is sure to please, and one that you will not forget soon after reading it. The stories by Stevenson are now widely read.

No. 991. **The Fatal Marriage.** By Miss M. E. Braddon. This is a thrilling story, in which a man marries a lovely girl for her wealth, and as it should always be, he came to grief as a reward for his deception.

No. 957. **How the Widow Bedott Popped the Question to Elder Sniffles.** This book is funny—even funnier than the title implies. The Elder was an old-time Baptist preacher, and a widower. Now, the Widow had often ridiculed the Baptists, but the way she changed her tune after she had "sot" her heart on the Elder was a caution, as well as comical. The Elder thought the Widow was rich, and so accepted her proposal. The reader will have many a hearty laugh at their expense, and likely repeat, "Old fools are the biggest fools of all."

No. 956. **The Courtship of Widow Bedott and Mr. Crane.** If there is any truth in the old saying, "Laugh and grow fat," then the Widow Bedott books will help to make lots of fat.

No. 990. **On Her Wedding Morn.** By Bertha M. Clay.

No. 989. **Her Only Sin.** By Bertha M. Clay. A fascinating novel.

No. 984. **Gulliver's Travels.** Tells of the supposed travels and surprising adventures of Lemuel Gulliver into an unexplored part of the world, where he met with a race of people no larger than your hand. A great favorite with boys and girls who like to read books of travel. Illustrated.

No. 974. **Talmage on Palestine.** A book containing a series of sermons by the Rev. T. DeWitt Talmage.

No. 973. **Aesop's Fables.** Contains about 200 fables and 45 illustrations.

No. 959. **Courting of Dinah Shadd.** By Rudyard Kipling.

No. 968. **Recipes for Making 200 Kinds of Soap.** With these recipes any lady can make all the soap needed for her family.

No. 976. **Noble and Heroic Deeds.**

No. 962. **Old Mother Hubbard, and 138 Other Nursery Rhymes and Jingles.** For generations these rhymes have delighted the children. The comical pictures, the fairy stories and short verses are a never-ending source of delight. This is the complete book, containing one hundred and thirty-eight stories and over seventy illustrations.

Henry Drummond's Books ***

Prof. Henry Drummond is without doubt one of the most popular writers of the age, and of his three books offered in this collection the *Quarterly Review* says: "For simplicity, truthfulness, gentle yet mighty force in statement, and loving loyalty to God, they are unequalled by anything ever written on the subject. They will be angels of mercy to every home that gives them a welcome place on the reading-table."

Works of Charles Dickens ***

We offer seven popular books written by Charles Dickens, one of the greatest novelists who ever lived. These books abound in wit, humor, pathos, masterly delineation of character, vivid descriptions of places and incidents. They are intensely interesting to children as well as grown persons. The collection of his books here offered is considered by many to be the best works of this world-famous author.

Books by Other Popular Authors

Among the books named in this collection are to be found many by other popular authors, as Dr. T. DeWitt Talmage, the late Rev. Charles H. Spurgeon, Bertha M. Clay, Beatrice Harraden, Miss M. E. Braddon, Rudyard Kipling, Jerome K. Jerome, R. L. Stevenson, Nathaniel Hawthorne, etc., making them a grand collection of thought in the line of truth, fact, fiction, wit and humor, a feast for the hungry literature-loving public.

A \$100,000 PICTURE

CHRIST BEFORE PILATE,

The Most Costly Painting in the World.

At a great expense we had this world-famous painting reproduced in all its beauty and richness of color, selling over 300,000, and could have sold more, but we did not have them. The unanimous praise the picture received from this host of men and women who love the Master has created such a demand that we have been persuaded by their constant appeals to reproduce a limited number of copies of the picture in the original colors.

Premium No. 100.



The picture is 21 inches wide and 28 inches long.

DESCRIPTION OF THE PAINTING.

The scene chosen for the painting is the "Judgment Hall" in the palace of Pilate, and the hour "early in the morning." Around the Governor the priests are gathered, and the high-priest, Caiaphas, is accusing Christ and demanding his death. The proud and furious bigot is all alive with excitement. There is a majesty about his pose, the consciousness of power in his look and gesture, and something of dignity in the superb audacity with which he draws Pilate's attention to the execrations of the mob (who are crying out, "Crucify him!") as expressive of the national will which the Governor is bound to respect, at the same time insinuating that to let this man go will be treason to Caesar, as well as a violation of the Jewish law which demands the prisoner's death for "making himself the Son of God." Pilate is yielding to the clamor, while his conscience, aided by his wife's message warning him not to condemn that righteous man, is protesting in tones which make him tremble.

THE CENTRAL FIGURE.

And the most impressive of all, is Christ himself, clad in white, with flowing hair and bound wrists. He stands alone in the simple majesty of his own personality, without sign or symbol save his individual greatness. A heavenly submission is on his face. Never before in any painting of the Messiah has anything of his personality in pose and figure been seen. The face has been that of Jesus, the form that of other men; but here the figure is of Christ himself.

OTHER LEADING FIGURES

Are represented by the proud and confident Pharisee, the haughty and contemptuous Scribe, the Roman soldier, and the rufian leaders of the mob. At one side a mother holds up her child to see the Savior. In the outer court the multitude is awaiting Pilate's decision.

WHAT OTHERS SAY.

WASHINGTON, D. C.
I saw the painting "Christ Before Pilate" in St. Paul, and can testify that the picture sent me is a perfect facsimile in every particular, especially in the coloring. I consider it an art treasure, and in view of the great value of the original, it certainly is.
MARY A. DENISON.

MUSKOGON, MICH.
I received the picture "Christ Before Pilate," and thank you a thousand times for having sent me such a beautiful picture. Would not part with it for \$20.00 if I did not know where I could obtain another. I shall give it the best place in our parlor.
CHAS. A. LINDSTROM.

NOEMAN, NEB.
I received the picture "Christ Before Pilate," and would not part with it for \$15.00 if I did not know where to get another. I will have it suitably framed, and I will give it the best place in our parlor.
N. L. JOHNSON.

ST. CATHARINE'S ACADEMY, RACINE, WIS.
The picture "Christ Before Pilate" duly received, and we are delighted with it. It is an excellent copy of the original, which we have seen.
MOTHER M. HYACINTHA.

ARTONDALE, WASHINGTON.
I have received the picture "Christ Before Pilate," and am well pleased with it. I would not take Twenty Dollars for it if I could not get another one.
A. D. WRIGHT.

Finer Than Some Pictures Sold in Stores for \$10 Each.

Mr. John Wanamaker, ex-Postmaster-General, paid over one hundred thousand dollars for the original painting, which has been exhibited in the great cities of Europe and America. Thousands of people paid a big admission fee to get a sight of this masterpiece.

Our reproduction of the picture is 21 inches wide by 28 inches long, sufficient in size to allow ample scope for the display of the salient features of faces and forms, while the varied expressions of hate, fear, curiosity, compassion and reverence of those assembled are shown with a startling fidelity.

Michael De Munkacsy, the painter of this remarkable picture, is one of the most illustrious painters of the age. Kings and potentates the world over have honored him for his genius. He considers "Christ Before Pilate" the greatest production of his life. It brought him both fame and wealth.

Months of patient labor were required in preparing the stones for the reproduction of this picture. The artists were instructed to be faithful and perfect in every detail, regardless of expense, and have furnished an oleograph copy of the painting equal in size and artistic merit to pictures sold in stores for \$10 each.

For only 35 cents we will send Farm and Fireside the REMAINDER of this year and "Christ Before Pilate."

For only 25 cents we will send Farm and Fireside the REMAINDER of this year and any FIVE of the above books.

Postage paid by us in each case.

For any article on this page order by the premium number and address

FARM AND FIRESIDE, Springfield, Ohio.

MIDSUMMER CONTEST

CLOSES AUGUST 31st.

CLOSES AUGUST 31st.

One \$100 Bicycle and \$100 in Cash

We offer six valuable prizes for the largest number of words which can be spelled with the letters in the word "Beautiful." To enter the contest an order for a subscription must come with the list of words. Any of the offers in this or previous issues may be accepted. (See page 16.)

First Prize,	For the largest list of words sent us,	One Bicycle (ladies' or gents'),	\$100.00
Second Prize,	For the second largest list,	Cash,	30.00
Third Prize,	For the third largest list,	Cash,	25.00
Fourth Prize,	For the fourth largest list,	Cash,	20.00
Fifth Prize,	For the fifth largest list,	Cash,	15.00
Sixth Prize,	For the sixth largest list,	Cash,	10.00
Total value of prizes,			\$200.00

CONDITIONS GOVERNING THE CONTEST.

Words must be written alphabetically, on but one side of ruled paper, and numbered, beginning with 1.
 Words spelled alike, but having different meanings, can be used only once.
 Variants will not be allowed; that is, use but one form of spelling a word.
 Words (except those found in dictionaries in general use) formed with prefixes and suffixes will not be allowed.
 Use no word commencing with a capital letter; as, proper nouns, adjectives derived from proper nouns, geographical names, etc.
 Do not use obsolete, foreign and compound words, or abbreviations.
 Other words—common nouns, adjectives, verbs, adverbs, pronouns, participles, prepositions, conjunctions and interjections—allowed. Plurals allowed.

Each letter may be used as desired, but not more times than it appears in the word "Beautiful." Work it out as follows: able, aft, ail, at, ate, bail, bait, bale, be, beat, beautiful, bet, bile, bit, bite, blue, but, etc., etc. These words may be used. Any dictionary in common use may be consulted.
 The list of words must be written on separate paper from the subscription letter and signed with the contestant's name and address.
 The paper may be ordered sent to one address and the premium to another.
 In case of a tie, the sender of the largest list of words first received by us will get the first prize, and the sender of the largest list next received by us will get the second prize, and so on. Persons living in Springfield, Ohio, and Clark county, Ohio, will not be allowed to enter the contest.

Your list of words must be sent us during the month of August. The list will not be large, and can easily be made out. After the prize-winners are announced many will say, "Why, I could have made up that many words." Why not do it, and get a prize?

Address FARM AND FIRESIDE, Springfield, Ohio.

HOW TO BE BEAUTIFUL

Premium No. 63.



Shirley Dare's book, "The Arts of Beauty," teaches how to be beautiful. It should be read by every girl and woman, especially by every mother who is raising daughters. It teaches not only what to do, but what not to do. It prescribes only such remedies and methods as are perfectly safe, and is indorsed by eminent physicians. ❀ ❀ ❀

Shirley Dare is the most popular and practical writer in this country on cosmetics, health and the arts of the toilet. She has made the subject her life-work, having studied under the best masters of America and Europe. ❀ ❀ ❀ What she says in "The Arts of Beauty" regarding the care of the complexion, hair, body and health in general may be relied upon as authority. ❀ ❀ ❀ She is a bitter foe of anything false or injurious. Her contributions are eagerly bought at high prices by editors of papers, and her name and fame are almost universally known among the women of America. ❀ ❀ ❀ ❀ ❀ ❀ ❀ ❀ ❀ ❀

HEADINGS OF THE CHAPTERS

- I.—Gifts of Charming.
- II.—The Secrets of Good Looks.
- III.—Grace and Expression.
- IV.—Bloom and Fairness.
- V.—Hair, the Crowning Glory.
- VI.—Training for a Fine Figure.
- VII.—Women Bred for Beauty.
- VIII.—The Culture of Beauty.
- IX.—Toilet Elegancies.
- X.—Manicuring.
- XI.—Cosmetics and Lotions.
- XII.—Things Inquired For.
- XIII.—Defects and Annoyances.
- XIV.—Different Constitutions.
- XV.—Health and Dress.
- XVI.—Lovable Faces.
- XVII.—On Perfumes.
- XVIII.—Sanitary Improvements.
- XIX.—Diet for Beauty and Health.

"The Arts of Beauty" has heretofore been sold exclusively by agents, and never for less than a dollar and a half a copy. ❀ ❀ ❀ We purchased the right to print an edition of this splendid book, and in order to procure thousands of trial subscribers, we offer it at the marvelously low price named below. This premium edition is exactly like the agents' edition except that it is not expensively bound. It contains every word found in the agents' edition. It has 256 pages. Satisfaction guaranteed or your money refunded. ❀ ❀ ❀ ❀ ❀

FOR 30 CENTS We will send this book, and Farm and Fireside for the remainder of this year, for thirty cents; or with the paper one full year, fifty cents.

Postage paid by us in each case.

Address FARM AND FIRESIDE, Springfield, Ohio.

FRUIT EVAPORATORS. Best and cheapest. D STUTZMAN, Ligonier, Ind.



Mixed ready for use. Glossy black finish. One gallon will cover 500 square feet of surface. One coat will last five years. Write for prices. The Kansas City Metal Roofing & Cor. Co., 116 Delaware St., Kansas City, Mo.

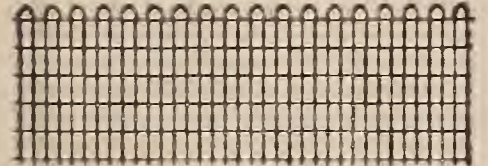
Saw Grist Cane Shingle Planing Mills, Hay Presses, all kinds of Machinery, new, first-class, CHEAP. DeLoach Mill Manufacturing Co., 501 Highland Ave., Atlanta, Ga.

CIDER PRESS

The only press awarded medal and diploma at World's Fair. HYDRAULIC. Send for free catalogue and full particulars. HYDRAULIC PRESS MFG. CO. No. 6 Main St., Mt. Gilead, Ohio

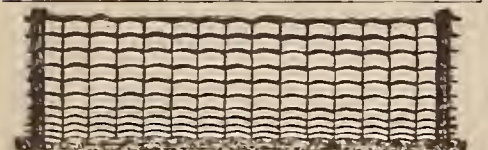
NEW DRESS SET, 10c.

A new and beautiful design set including pair of ball end rigid link Cuff buttons, 3 studs, 1 collar button and new patent belt retainer in 14 K Roman gold or sterling silver. Extra heavy plate. Worth 35c. in any store. To give you an inkling of our 1,000 Bargains we send complete set and large catalogue post-paid ONLY 10 CTS. 3 for 25c. Ingersoll & Bro., Dept. 16 65 Cortlandt St., N.Y. City



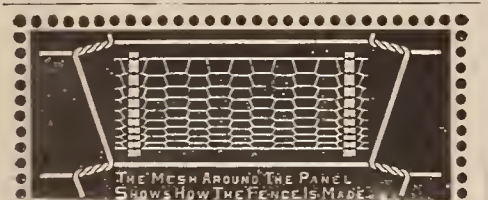
STEEL PICKET LAWN FENCE, steel gates, steel posts and rail, also Field and Hog Fence Wire, single and double farm gates. For further information, write to the UNION FENCE CO., De Kalb, Ill.

Winger's Steel Wind Mill. Mechanically constructed and simple. Awarded World's Fair Diploma and Medal. Galvanized Steel Tanks, Regulators and Grinders. E. B. WINGER, 532 Kenwood Terrace, Chicago.



No Expense For Threshing. There is a simple little machine on the market, which can be had for \$1—, with farm right to use it. This tool was named "flail," but if it is called "hurricane," the work will be easier. The farmer's time is nothing, and after threshing is finished, he can buy a little "pocket whirling" and build fence. Of course the progressive farmer will not try to compete with steam, either in threshing or fence building. He uses the PAGE. PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

FARMERS you can make money by selling and using HOLDFAST Corn Binders, used on every shock. Pull and it's fast. Ties itself. Costs less than string. Never wears out. Thousands sold in a town. Good profits. Get town agency. Samples, 3 sizes, mailed 5 cts. TIE CO., Box 528, Hazilla, N. Y.



TRUE FENCE ECONOMY. consists in building a fence that will last; one that cannot be blown down; one that cannot burn up, and which will turn all kinds of stock, from the smallest pig to the largest bull or horse. Such a fence is the KEYSTONE FENCE. More about it in our FREE book on fence building. KEYSTONE WOVEN WIRE FENCE CO., No. 30 Rush St., PEORIA, ILL.

GOODHUE We want responsible Agents. Write for what you want and our illustrated Catalogue—FREE. Calvanized Steel PUMPING AND POWER MILLS are acknowledged to be the most powerful and durable; they are self-oiling, direct or back-gear, and have the most perfect governor made. We make Ensilage and Fodder Cutters, Corn Huskers, Corn Shellers, Feed Grinders, Wood Saws, Sweep Powers, Tread Powers, Hay Loaders—full line of anything the farmer needs. APPLETON MFG. CO. 9 Fargo Street, BATAVIA, ILL.

Humor.

COOKING ACCORDING TO SCIENCE.

Give me a spoon of oleo, ma, And the sodium alkali. For I'm going to bake a pie, mama, I'm going to bake a pie. For John will be hungry and tired, ma, And his tissues will decompose; So give me a gram of phosphate, And the carbuu and cellulose. Now give me a chunk of casein, ma, To shorten the thermic fat; And hand me the oxygen-bottle, ma, And look at the thermostat; And if the electric oven's cold, Just turn it on half an ohm, For I want to have supper ready As soon as John comes home.

Now pass me the neutral dope, mama, And rotate the mixing-machine, But give me the sterilized water first, And the oleomargarine; And the phosphate, too, for, now I think, The new typewriter's quit, And John will need more phosphate food To help his brain a bit. —New England Magazine.

ONE CHANCE OF EFFECTING A CURE.

A nervous young lady called a physician for a slight ailment, but one which she magnified in her own estimation into a serious one. "Run," said the doctor to a servant, giving him a prescription, "to the nearest drug-store, and bring back the medicine as quickly as you can." "Is there much danger?" asked the young lady, in alarm. "Yes," said the doctor; "if your servant is not quick it will be useless." "Oh, doctor! shall I die?" gasped the patient. "There is no danger of that," said the doctor, "but you may get well before John returns."—Boston Traveler.

ONE COMFORT.

"I may have bitten off more than I can chew," remarked the boa-constrictor, as the young gazelle disappeared within its capacious jaws, "but, thank fortune, I don't have to chew!" And it curled itself up for a six-weeks' nap.—Chicago Daily Tribune.

PUTTING IT DELICATELY.

"I hope you appreciate the fact, sir, that in marrying my daughter you marry a large-hearted, generous girl." "I do, sir (with emotion); and I hope she inherits those qualities from her father."—Harlem Life.

HER STRONG POINTS.

"Mrs. Meeker," observed a friend of the family, "is a very superior woman. She can converse intelligently. I believe, on a thousand different topics." "Yes," sighed Mr. Meeker. "And she does."

CLASS PREJUDICE.

"Well, there is one thing to be proud of; we have no class prejudice in this country." "I guess you were never around when three or four sophomores got hold of a freshman."—Indianapolis Journal.

IN THE WEST.

The minister—"Brother Jones was a worthy man and a good Christian." The deacon—"Yes, indeed. Before he died he forgave the crime of '73."—Truth.

HIS IDEA.

"Isn't the emperor of Germany the grandson of Emperor William I.?" "Yes; but he thinks he is the great grandson."—Puck.

LITTLE BITS.

"You want to marry my daughter, eh?" said the practical man. "Well, what provision have you made for the future?" "Oh, as to that," replied the suitor, "I'll join the church right away."—Philadelphia North American.

CRIPPLE CREEK INVESTMENTS.

Big fortunes have been made by a small investment in Cripple Creek stocks, and the way many have suddenly acquired wealth would make interesting reading. We can not here go into details, but if you will write us we will suggest a plan that will materially improve your pecuniary condition. We have something special to offer, and it will cost you nothing to send us your name and get on our list for Cripple Creek literature. Our facilities in the stock business are unexcelled. Address The Mechem Investment Company, Colorado Springs, Colorado.

DISSTON'S Fully Warranted. For Sale by all Dealers. Send for Pamphlet, or "Saw Book," mailed free. HENRY DISSTON & SONS, Philadelphia, Pa.

LIGHTNING HAY PRESS Most durable and economical. Satisfaction or no sale. Kansas City Hay Press Co. 124 Mill St. Kansas City Mo.

THE FAST SOUTHWICK HAY PRESS works equally well with power on incline or level. Well adapted for work at BANK BARNs. Stands up to its work; no digging holes for the wheels. ACTUAL CAPACITY 12 TO 16 TONS PER DAY. Largest feed opening of any Double Stroke Press made. Longest Stroke—4 feet. Short Crank—10 inches. Light Draft. Will turn out from 4 to 6 tons more per day than any press made. Catalogue and Price List Free. SANDWICH MANUFACTURING COMPANY, 125 Main St., SANDWICH, ILLINOIS.

AGENTS WANTED FOR "The Story of American Heroism." The latest and best book on the Civil War. Stories of personal adventure by Uncle Sam's Medal Winners and Confederate Roll of Honor Men, the cream of the Nation's Heroes, who were honored by the government for special acts of bravery; each man tells his own story for the first time. The most thrilling record of personal encounters, captures, hair-breadth escapes and blood-stirring experiences ever published. Reads like a romance. OVER 800 LARGE OCTAVO PAGES; 300 FINE ORIGINAL ILLUSTRATIONS. Narratives by Gen. Lew Wallace, Gen. O. O. Howard, Gen. Alex. Webb, Gen. Fitz Hugh Lee, Wade Hampton, Gen. Bradley T. Johnson, and a score of others equally celebrated. A NEW IDEA; a official and authentic; the only book containing the stories of the Medal Winners. Every family will want it. Just out; territory fresh; absolute control of same. Interests people at once; sells where nothing else will. Popular prices and terms to suit the times. Chance for hustlers to make \$50.00 to \$75.00 a week. \$10.00 A WEEK GUARANTEED TO BEGINNERS. Don't wait an hour, but write quick for circulars to AMERICAN PUB. CO., SPRINGFIELD, OHIO.

AGENTS' OUTFIT FREE. No Capital Needed. Weekly sales pay big money. BICYCLE. Fully guaranteed. Shipped anywhere on approval, direct from our factory. ALPINE CYCLE CO., Dept. 219, Cincinnati, O.

GRINDER made to attach to any size or make of pumping wind mill, and grind all kinds of grain. A wonderful machine. Also manufacturer of Steel Wind Mills. E. B. WINGER, Station R, CHICAGO.

WHITMAN'S BALING PRESSES. Always Victorious. A Full Line. Buy the BEST. Send for Circulars. Warranted Superior to any in use. The Largest Hay Press Factory in America. WHITMAN AGRIC'L CO., St. Louis, Mo.

FRENCH BUHR MILLS All kinds farm grinding. A boy can operate and keep in order. 25 sizes and styles. Every mill warranted "Book on Mills" and sample meal FREE. All kinds mill machinery. Flour mills built, roller or buhr system. Get our reduced prices. NORDYKE & MARMON CO. 15 DAY ST., INDIANAPOLIS, IND.

CIDER & WINE PRESS MACHINERY. POWER AND HAND PRESSES. (Capacity, 10 to 120 Bbls. in ten hours.) Send for Catalogue. Empire State Pulley & Press Co., Fulton, Oswego Co., N. Y.

WELL DRILLING MACHINERY, MANUFACTURED BY WILLIAMS BROTHERS. ITHACA, N.Y. MOUNTED OR ON SILLS, FOR DEEP OR SHALLOW WELLS, WITH STEAM OR HORSE POWER. SEND FOR CATALOGUE. ADDRESS WILLIAMS BROS. ITHACA, N.Y.

HEEBNER'S Patent LEVEL-TREAD HORSE-POWER With SPEED REGULATOR. For 1, 2 and 3 Horses. Catalogues free. LITTLE GIANT Threshing Machine. Threshes Grain, Rice, Flax, Millet and Grass Seed. Fully Warranted. Feed and Ensilage Cutters, Feed Grinders, &c. HEEBNER & SONS, Lansdale, Pa., U.S.A.

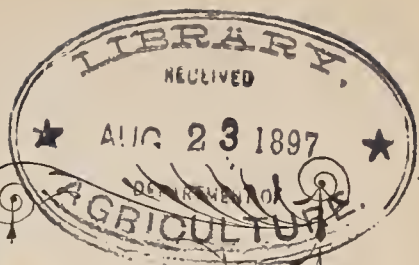
ERTEL'S VICTOR HAY PRESS SHIPPED ANYWHERE TO OPERATE ON TRAILS AGAINST ALL OTHER PRESSES. PURCHASER TO KEEP ONE DOING MOST AND BEST WORK. GEO. ERTEL & CO. QUINCY, ILL.

THE PERKINS BACK CEARED STEEL Wind Mills Are Good Mills They are made entirely of steel and are fitted with Graphite Self Lubricating Boxes, mounted on galvanized 4-corner Steel Tower. Ideal Mill for the farm. We make steel and wood pumping and power mills. Catalog and wind mill pointers free. Perkins Wind Mill Co. 8 Race St., Mishawaka, Ind.

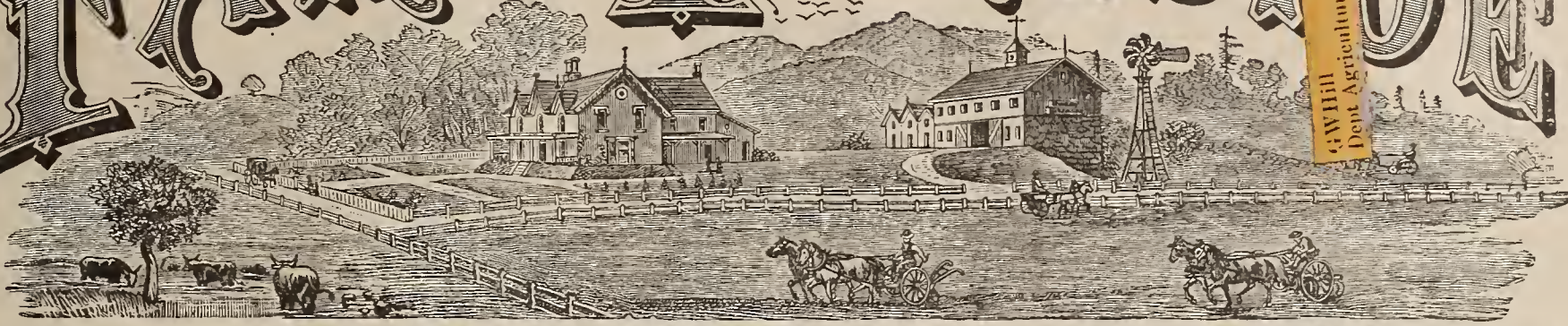
THE "HOOVER" DIGGER Price greatly reduced. Mention this paper and get book FREE. Digs POTATOES Rapid, Clean and Cheap. HOOVER, PROUT & CO. Avery, Ohio.

HALLOCK'S SUCCESS GILT EDGE POTATO HARVESTER. Patent applied for. Agents Wanted. Box 816. If you want a Digger, we guarantee to beat the world, regardless of price. Write at once. D. Y. HALLOCK & SON, YORK, PA.

IT KILLS Potato Bugs, Pumpkin Bugs, Cabbage Worms, and all forms of insect life. Harmless to man or beast. Will not injure the most delicate plants, but is sure death for all insect pests. Gray Mineral Ash is fully warranted where directions are followed. Send for our little "Big Book." It may save you lots of money. NATIONAL MINING AND MILLING CO., Baltimore, Md. Carried in stock by all leading wholesale druggists.



FARM AND FIRESIDE



G. W. Hill, Dept. Agriculture

EASTERN EDITION.

Entered at the Post-office at Springfield, Ohio, as second-class mail matter.

VOL. XX. NO. 22.

AUGUST 15, 1897.

TERMS (50 CENTS A YEAR. 24 NUMBERS.)

Average circulation for the past six months

310,482 COPIES.....
...EACH...
.....ISSUE

AS FOLLOWS

- 125,157 Copies of the Eastern Edition.
- 125,157 Copies of the Western Edition.
- 30,084 Copies of the New York Edition.
- 30,084 Copies of the Illinois Edition.

With more than 1,500,000 regular readers.

FARM AND FIRESIDE

Holds the undisputed title of

MONARCH OF THE WORLD'S RURAL PRESS.

SEMI-MONTHLIES.

In all America no semi-monthly has credit for one half so large a circulation as is accorded to the Springfield, Ohio, FARM AND FIRESIDE, and the publishers of the American Newspaper Directory will guarantee the accuracy of the circulation rating accorded to this paper by a reward of one hundred dollars, payable to the first person who successfully assails it.—From *Printers' Ink*, May 6, 1896.

minor crops are in promising form. The fruit crop generally promises good results. But these facts of large yield and good promise do not tell the whole story of prosperity. Prolific crops have been harvested before, but in some cases have, for want of consumption and demand, proven a burden rather than a blessing. It was a common saying that the farmer would rather have small crops with good prices than large crops and no prices. But this year come the abundant crops and high prices, a rare combination, and one calculated to warm the cockles of the heart of the thrifty farmer. Prices are high and inclining upward. There is no reason to fear a reaction and slump because of the actual conditions of the world's crops. The United States holds the key to prices. The wheat crop of the world is known to be about 100,000,000 bushels short. Argentine, India and Australia have no surplus, and Russia practically none. Great Britain, France and Germany are far short in their production of their home demand. There was an American surplus of last year's crop of 70,000,000 bushels, and the fortunate thing is that this is in the hands of the farmer. The advanced position of wheat developed before the farmer had disposed of his wheat to buyers, and now he will reap the full benefit of the advance. . . . The actual increase in money in the hands of the farmers through their wheat holdings throughout the country is an enormous sum. Wheat is worth now about twenty cents a bushel more than the crop last year, and the advance for this year has just begun. The market will

upward. Millions of bushels of old corn now lie in the cribs in the West, and with rising prices for this, as well as the new crop, there can be but one result.

"All along the line of agricultural production, including all live stock," continues Mr. Snow, "there is a general and steady increase. Large new flocks of sheep are contemplated as a result of the wool tariff, and the demand has increased the value of the sheep holdings of the country \$10,000,000.

"But the finest point in all these increases is the fact that they come at a time when the farmer holds his products, and that he individually will reap the full benefit. I have a little table here, prepared some days ago for publication, which shows the improvement in cash values of leading farm products. They are recent Chicago quotations for 1897 in comparison with those exactly one year ago:

	1896.	1897.
Wheat	\$.58	.77
Corn .....	.25	.27
Oats .....	.18	.17
Rye .....	.29	.39
Barley .....	.27	.31
Flaxseed .....	.73	.83
Hogs	\$2.90 to \$3.20	\$3.40 to \$3.60
Cattle	3.95 to 4.30	4.40 to 4.90
Sheep	2.00 to 3.30	2.35 to 4.00

"In these articles named, with the single exception of flaxseed, this year's supply is larger than that of last, and the supply, as I have said, is in the hands of the producer."

Taking from this list the three leading cereals—wheat, corn and oats—and the three classes of live stock—hogs, cattle and sheep—the farm value of this year's supply, at current prices, in comparison with the situation one year ago, is approximately as follows:

	1897.	1896.
Wheat	\$ 375,000,000	\$ 260,000,000
Corn	550,000,000	510,000,000
Oats	132,000,000	140,000,000
Hogs	233,000,000	196,000,000
Cattle (including cows)	1,192,000,000	1,012,000,000
Sheep	70,000,000	61,000,000
Totals	\$2,542,000,000	\$2,179,000,000
Increase, \$363,000,000.		

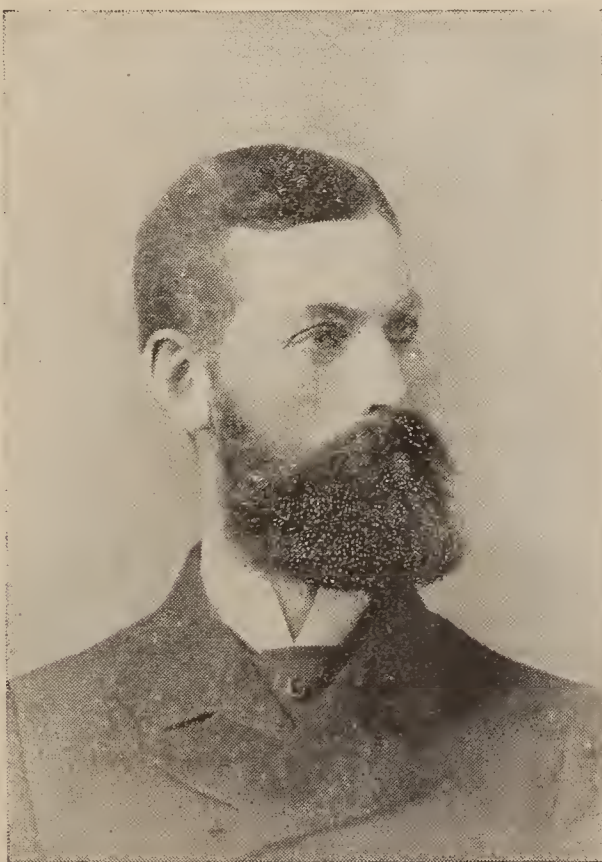
WITH THE VANGUARD

THE croakings of the pessimist are no longer heard in the land. The public will no longer listen to his prophecies of disaster. Prosperity, not prospective, but actual, is here. The farmers are busy taking care of bountiful crops, and will have money in abundance to spend next fall. Business has improved. Merchants are buying and selling on a larger scale than for months past. Factories are running, or getting ready to run, on full time and with full forces to supply the rapidly increasing demand for their products. Transportation facilities will be taxed to their utmost to carry the crops and merchandise. All lines of trade show a marked improvement, and prospects are bright. All this is based on the solid ground of prosperity in agriculture. In all the great agricultural states the crops are tremendous. And the price of nearly every farm product is advancing.

MR. B. W. SNOW, the ex-assistant statistician of the Department of Agriculture, who is still making a specialty of agricultural statistics, says, in speaking of the great agricultural wealth of the country at this time:

"With the bountiful crops throughout the United States, not in prospect, but actually in hand, with increased and increasing consumption at home and a larger foreign demand for American products, and with prices on the up-grade even while the crops are still on the farms, this year of 1897 will be remembered as a year of great agricultural prosperity and plenty.

"The crop season is now so far advanced that the final results can be safely promised. Nevertheless the result is no less pleasing than the earlier prospective hopes of the most optimistic. In no line of agricultural production is it a light year, and in most the yields are heavy. Hay has rarely flourished as it has this year. The abundant rains have given us a very unusual crop, and hay is a more important crop than usually thought. The rates of the new tariff law thoroughly protect our farmers in this respect. The year's wheat crop is the second largest in the history of the country, running upward of 500,000,000 bushels, and well distributed over the country. The corn crop promises a very large one. The oat crop is also well above the average. All the



HON. A. G. JUDD.

continue to rise. The increased value of the wheat crop of Kansas alone this year, in comparison with last, amounts to nearly or quite \$25,000,000, while the increased value of the country's crop at present prices is in excess of \$100,000,000 over that of last year."

Speaking of the outlook for the corn crop, Mr. Snow says:

"It is most gratifying. Although the season started late, the yield will be large. Two billion bushels is a fair estimate, as the acreage is the largest ever planted. Every indication points to advancing prices in corn. Last year at this time prices were shrinking at the prospect of a large crop; this year the tendency is

BEST of all, the farmers are raising the mortgages from their farms. During the year past the farm-mortgage indebtedness of the western states has been largely decreased. Millions and millions of dollars of mortgages have been paid off in Minnesota, the Dakotas, Nebraska, Iowa and Kansas. This decrease is not due to deeding the property to the holders of the mortgage, but to the actual reduction of debt by the debtors. With larger crops and higher prices the reduction in farm-mortgage indebtedness will be far greater in the next than in the past twelve months.

Reports from various states indicate the decided improvement of the condition of farming in this respect. Here is a sample from Governor Leedy, of Kansas:

"Kansas finds herself to-day with more of her debts liquidated and her finances in better shape than perhaps any other state in the Union."

HON. A. G. JUDD, of Dixon, whose portrait appears on this page, is one of the most progressive farmers and dairymen in Illinois. Mr. Judd is president of the state dairymen's association, which recently accomplished some very important work. He is an institute worker with a successful record. Some months ago the Illinois Association of Agricultural Editors began the work of reforming the management of the farmers' institutes, and got a good president elected. The association desires to complete this work by having Mr. Judd elected superintendent of institutes at the state fair meeting, and FARM AND FIRESIDE heartily indorses their choice.

FARM AND FIRESIDE

PUBLISHED BY

MAST, CROWELL & KIRKPATRICK.

OFFICES:

108 Times Building, New York City. Springfield, Ohio. 1643 Monadnock Block, Chicago, Illinois.

Subscriptions and all business letters may be addressed to "FARM AND FIRESIDE," at either one of the above-mentioned offices; letters for the Editor should be marked EDITOR.

TERMS OF SUBSCRIPTION:

One Year - (24 Numbers) - 50 Cents.
Six Months - (12 Numbers) - 30 Cents.

The above rates include the payment of postage by us. All subscriptions commence with the issue on press when order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and family journals are issued.

Payment, when sent by mail, should be made in Express or Post-office Money-orders, Bank Checks or Drafts. WHEN NEITHER OF THESE CAN BE PROCURED, send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. DO NOT SEND CHECKS ON BANKS IN SMALL TOWNS.

Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelop and get lost.

Postage-stamps will be received in payment for subscriptions in sums less than one dollar, if for every 25 cents in stamps you add one-cent stamp extra, because we must sell postage-stamps at a loss.

The date on the "yellow label" shows the time to which each subscriber has paid. Thus: 1Jan98, means that the subscription is paid up to January 1, 1898; 15Feb98, to February 15, 1898, and so on.

When money is received, the date will be changed within four weeks, which will answer for a receipt.

When renewing your subscription, do not fail to say it is a renewal. If all our subscribers will do this, a great deal of trouble will be avoided. Also give your name and initials just as now on the yellow address label; don't change it to some other member of the family; if the paper is now coming in your wife's name, sign her name, just as it is on label, to your letter of renewal. Always name your post-office.

The Advertisers in This Paper.

We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it. Always mention this paper when answering advertisements, as advertisers often have different things advertised in several papers.

NOTES ON RURAL AFFAIRS.

What to Drink.

It is a timely subject indeed. Drinking, like eating between meals, is largely a matter of habit, and a bad habit, too; and yet, during the torrid heat of our bright summer days, the man who tills the soil in the broiling sun, or harvests the crops, and who is perspiring freely, will feel the need of something to moisten and cool his parched lips and throat. Drink he must at such times, although it should not be drink so much as sip, sip, sip. If the liquid could be taken with a teaspoon, it would be all the better, and it would be all the more cooling and refreshing. Where so many of our hard-working friends make their great mistake—and one that often causes them much temporary ill-feeling, if not actual sickness—is the habit of gulping down in long draughts great quantities of ice-cold water. Excessive doses of cold water are always dangerous, but if you must swallow it, first of all keep the ice away. Well-water or spring-water is cool enough. Then add some fruit-juice—raspberry, strawberry, currant, whatever it may be—or a few drops of lemon-juice. Even good vinegar or boiled elder and a little ginger is better than nothing. Or if you have no fruit-juice, you may add a little milk or cream. Sugar is always a good addition. My own preference in hot weather is for hot drinks—hot lemonade, hot coffee with plenty of milk or cream, hot but very weak chocolate, etc. Even hot water flavored with cream and sugar comes handy. And I can tell you that these hot drinks, when you once overcome your prejudice, will be found more satisfactory, more wholesome, than cold drinks, and surely safe and harmless at any time, what is more than can be said of ice-water, iced teas, etc. Whatever you take, however, don't fail to sip it—the more slowly the better. If you want to gulp it down, you do it at your own risk. Once more let me say it, try hot sips instead of ice-cold gulps. You will be astonished how cooling and satisfying they are. The cold drinks cool on first contact and perhaps make you shiver for

a second. After that the reaction sets in and you are hotter than ever, and the more you drink the more you desire to drink. The drink desire grows on what it feeds. On the other hand, the hot drink or sip seems to heat you up all the more on first contact; but after a minute or two there is relaxation and relief. You feel cooler, and free from the annoying dryness and insane desire for drink.

* * *

Some Poultry Matters.

I have been for some time wanting to tell some of my newer poultry experience in these columns. In some respects this experience has been quite satisfactory, but at least in one respect it has been somewhat discouraging. Rats have been the discouraging feature, and a great many of the little downy chicks, and ducklings, too, and some half-grown ones besides, and a whole lot of pigeons, too, fell victims to the pest before we found means to conquer it. We trapped and shot rats by the wholesale, and the more we trapped and shot, the more seemed to come. Rough on rats finally reduced their numbers somewhat, but the complete (or nearly complete) victory was secured only through the means of an old cat that was kept hungry by having to nurse five half-grown kittens. This cat could catch, kill and devour the old rats that were too cunning to get into a trap, or get in reach of the gun, or take poison. I found out, too, that it is a pretty tight coop that will keep an old rat out that has once tasted how sweet and tender the flesh of a little chick or duckling is. It seems that nothing short of solid iron will do it. These rats gnaw through board, and dig through walls and cement, and even pounded glass—and they can crawl through a pretty small hole. I have exhausted all my ingenuity, and failed. But a good hungry old cat in the barn, with free run through and about all the out-buildings, will soon give us relief of the rat nuisance.

* * *

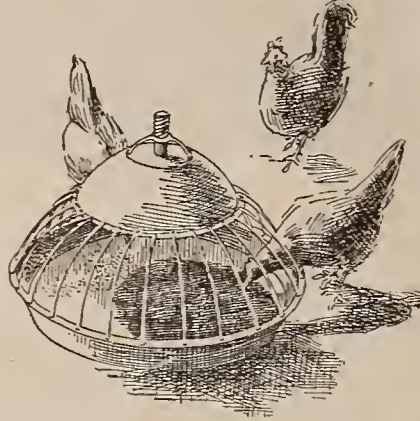
Incubators.

Many years ago, before the modern incubator was invented, I called attention to the possibilities of artificial incubation, and, in fact, tried my hand on it to some extent, and with little satisfaction. Then I became a skeptic, especially when I saw that in the hands of the average person failure with artificial incubation was the rule and success the exception. I have sounded many a note of warning, and often called attention to the hundreds of incubator wrecks that were strewn all over the country. And yet I am converted again, fully and freely. Artificial incubation is the thing; and I believe that success can be secured with the majority of the incubators now put on the market if properly managed. These modern hatchers are self-regulating to a remarkable degree. We can keep the heat just to the required degree, if we will only give due attention to the machine for a few minutes twice a day. The only point of anxiety and uncertainty is that of moisture. But if we keep the incubator in a room that has an average amount of moisture, or can be kept a little moist, like an ordinary dwelling-house cellar, I believe we need pay no attention to the moisture inside the hatcher. But we should not ask too much of the machine. As an average we do not hatch more than fifty per cent of all the eggs we set under hens, if we do that, and then we lose many chicks by the old hens stepping on them, or even squashing them in the shell. Frequently the young stock has but little vitality transmitted to it from the parent stock, and the chicks are too weak to break the shell when ready to hatch, or the eggs were not fully fertile, so that the chicks started and then died. Don't expect that every egg—or even every fertile egg—placed in an incubator should hatch. If we hatch fifty out of a hundred and raise them, we are doing fairly well—much better than we usually do with hens. The mistake I made was in buying small-sized incubators. Why spend time on 100-egg sizes and raise fifty chicks from one hatch, when with the same attention and with a 200-egg size we can hatch and raise one hundred chicks, or with a 300-egg size one hundred and fifty chicks. I have one make, and like it very much. On the other hand, a neighboring poultryman has another make, which he praises highly, and says he wants no other.

Brooders,

Fountains, Etc.

About my home-made brooder, and the most excellent satisfaction it gives me, I will tell at another time. As to fountains, I use the self-feeding stoneware fountains (one-half-gallon size for newly hatched chicks, and two-gallon size for the larger ones), which can be bought of any dealer in poultry supplies. The chicks have a continuous supply of cool drinking-water which they can neither befall nor get into. The two-gallon size, once filled and placed in the shade, keeps the water cool and fresh all day long. For old fowls I have never found anything superior to the Hallock's food and water holder, picture of which is annexed. I use the largest size made, and find it very convenient, especially as it is easily kept clean. I fill mine with



milk in the morning, and with clear well-water when the milk is gone. The pan is easily detached and rinsed or washed out. It keeps clean without much trouble or washing.

T. GREINER.

SALIENT FARM NOTES.

Two years ago I bought a lot of clover-seed from a local dealer, and as he had said it was an extra nice, clean lot, I did not examine it closely, but sowed it immediately. Going over the ground some months later I discovered what was to me a new weed—the bracted plantain. It did not appear to be very abundant then; but later on, when the seed-bearing stems appeared, I learned to my sorrow that there was enough to make it a very serious pest.

Lyster H. Dewey says of this weed, in Farmers' Bulletin No. 28: "The bracted plantain is an annual, sometimes a winter annual, and in some cases the roots are apparently perennial. (This is the case on my land.) The leaves are not killed even by severe frosts. It is closely related to the lance-leaved plantain, or rib-grass, and to the woolly plantain. The leaves, appearing almost like a tuft of rather thick, dark green grass-leaves,



spring from the apex of a somewhat thickened root. The seed-bearing stems, five to ten inches in height, and numbering five to twenty-five on each plant, as in other plantains, are leafless and naked near the base. . . . The seeds usually fall near the parent plant, hence, after the first introduction, the bracted plantain grows in dense colonies, covering the ground so thickly as to choke out all other vegetation. An average plant produces about fifteen flower-spikes, and an average spike bears about one hundred flowers, or two hundred seeds, making a total

of about three thousand seeds to the plant. . . . If the land has become thoroughly seeded, a series of hoed crops will probably be necessary to clear it out."

* * *

The foregoing shows what a pest I inadvertently introduced upon my land. On mowing this clover-field a short time ago I found patches of this pest, two to four feet square, so dense as to have crowded out every clover and timothy plant growing on that space. Most of this field is planted to apple orchard. I intended to keep it in clover permanently, and, after mowing three or four years, to pasture it with hogs. How am I to rid that land of this miserable pest?

Must I turn the clover under, and at great expense grow three or four "hoed crops" on the land to clean it? Apparently that is just what I shall be obliged to do. The party who put that clover-seed on the market has given me a four-years' job. Many a farmer has been caught in a similar trap, and many a farmer has passed his troubles on to the next by selling clover-seed foul with the seeds of this and other pests.

* * *

Driving across the country a few days ago, I turned aside a little to call on a young farmer who, it seems to me, was a little school-boy only a very short time ago. He was "down the field cutting oats," so his neat little wife, who came to the door as I drove up, said. As I drove past his little barn, past the orchard, past his clean-cut meadow and through the field of corn, one thing impressed me greatly, and that was the neatness prevailing everywhere. The apple orchard was clean, the trees thrifty, symmetrical and loaded with fruit. Not a tuft of grass nor a weed could be seen anywhere around the meadow. Not a weed over four inches high could be seen in the little well-fenced pasture. No weeds were growing among the corn or around the field, nor along the hedges that separated his little farm from those adjoining.

When I reached the oat-field, there stood the stalwart, sun-bronzed man who only a very few years ago was a merry, careless, shouting school-boy. He was oiling the binder, with which he was cutting a ten-acre field of fine, heavy oats, while two young neighbors shocked them up. Here again that same thrifty neatness was apparent on every hand. The binder was six years old, yet it looked almost like a new one, and ran like a fiddle. It is owned by my young friend and a neighbor, and when not in use is kept in a close, water-proof shed. From all appearances it will do first-class work for fifteen or twenty years to come.

"We also own in partnership a mower, hay-rake, corn-planter and wheat-drill," said my young friend, "and we take care of them in such a way that they will do good work for the next ten to thirty years. If either of us should sell out and move away, we have an agreement that he—the mower—shall set a price on each of these machines, and the other shall give or take."

* * *

My young friend bought this farm on easy payments four years ago. He gave a stiff price, but he says he has been able to meet his notes as they came due, and he feels satisfied that in a very few years he will be entirely out of debt. He is a steady worker—not a "rusher"—a good manager, careful and economical and a close observer, and everything he does is done in the best manner. There is nothing wasted in the field, about the barn and yard or in the house. He and his little wife work together as one, and they are as certain to succeed as anything on earth is certain.

* * *

Strongly contrasting with the farm of my young friend is that of a neighbor who is land poor—who is trying to farm twice as much as he is able to. His hedges are high and ragged. Weeds are everywhere. His corn will need the best kind of a season to make two thirds of a crop. He lost ten acres of hay through not having force enough to get it stacked before a rain ruined it. His oats are light and full of weeds. More than half the trees in his orchard have been destroyed by borers and neglect. His machinery is standing out of doors. His wife and children are worn out with incessant hard work, and if there is a single ray of hope for him in the future, I am unable to discern it. Poor man! FRED GRUNDY.

Our Farm.

FARM THEORY AND PRACTICE.

THE WHEAT CROP OF 1898.—New plants and new crops are constantly being introduced and discussed, but in prime importance wheat ranks higher with the American farmer than all the new crops, taken together, that have been introduced into this country in the last century. The farmer tries this new crop and discards that one, but while so engaged he is probably depending upon his wheat, year by year, to pay taxes and furnish some other ready money. This is true throughout the wheat belt of the United States. The impression now prevails that prices should rule fairly good for the crop of 1897 on account of the probable foreign demand. Wheat is not commanding a high price from the threshing-machines, but the price is better than it has been for some years, and nearly every one believes that it will rise. All this sets one to wondering what the influence of this faith in wheat will have upon the area sown for next season's harvest. The world's supply of wheat continued to increase for several years, in the first part of this decade, until the surplus became a weight upon prices. For three or four years this surplus has been growing less, until it has ceased to exist as a depressing influence. Now, judging the future by the past, we shall probably grow larger crops for a year or two, when another disheartening surplus will knock all life out of the wheat market. This is not a matter within the control of the individual or of any single nation, and the only practicable thing for the farmer to do is to make sure as possible that whatever area he does seed shall yield enough bushels to the acre to let him out even with the world if prices do go tumbling to the lowest bottom next harvest, and to let him make some good money if the world's supply should remain rather short another year.

MOISTURE THE FIRST CONSIDERATION.

—The American farmer, in his rapid and impulsive way, thinks first of the kind and amount of fertilizer he will apply when he proposes to have a good yield of wheat. It is my experience and observation that comparatively few soils fail under favorable circumstances to make a fair crop of grain if the fall growth of the plants is pushed by abundant moisture. I have seen land, reputed "thin," or "worn out," make a good crop of wheat when there was an abundance of moisture after the seed-bed was made until winter set in. Now, this soil was made no richer by the rains, or practically so, and the fact that an abundant harvest was gotten proves that there was enough of the needed elements in that soil all the time. I am not arguing against fertilization of the soil, but we want facts, and the facts are that most soils can make a fair yield of wheat when the moisture is just right from seeding-time to winter, thus insuring a vigorous growth of thick-set plants. We have no insurance of such fall weather, but if we did have, we would hear less of dependence upon costly fertilizers. It follows as a reasonable inference that we should do all that is practicable to secure a moist seed-bed, and much can be done toward this end.

EARLY PLOWING, FINING AND FIRING.

—I have grown a good crop of wheat on land that was plowed late in the fall, a heavy crop of weeds being turned under, but this only illustrates the fact that a moist season may save us from the effects of our mistakes. The clouds provided for the continual necessities of the little plants in that loose and airy seed-bed. Four years out of five sufficient moisture must be secured by plowing early, and then making the soil fine and firm. It cannot be made too firm, even by tramping of horses, if the work is done when the ground is in proper condition for working. The best wheat in poorly prepared fields is generally near the corners where the teams do the most tramping. Thorough and early preparation enables one to get full benefit of subsequent rains before seeding-time, and if little rain comes, there is still a fair amount of water near the surface, as moisture is continually rising from the subsoil. I obtained the clearest proof of this fact by mulehng two acres of well-prepared wheat land with straw,

using about two tons to the acre and burning off before seeding. The fall was very dry, and the amount of water in that soil was a revelation to me.

FREING PLANT-FOOD.—While one is paving the way for collecting and holding a supply of moisture in the soil he is also making plant-food available. The crushing of the soil, bringing new particles into close contact and exposing the particles to the influence of air and moisture, in some way makes plant-food available, and has the same effect upon yields that the application of fertilizers have—the same effect in kind, though not always in degree. Notwithstanding all that has been written on tillage, and all that has been experienced by good farmers, our leading agricultural scientists believe to-day that the most of us fail utterly to appreciate the mine of wealth we have in our soil, if only we would free it by tillage so that plant-roots could use it. We seek fertility in other quarters, unmindful of its abundance in our soil, if only liberated by continued crushing and stirring of the particles.

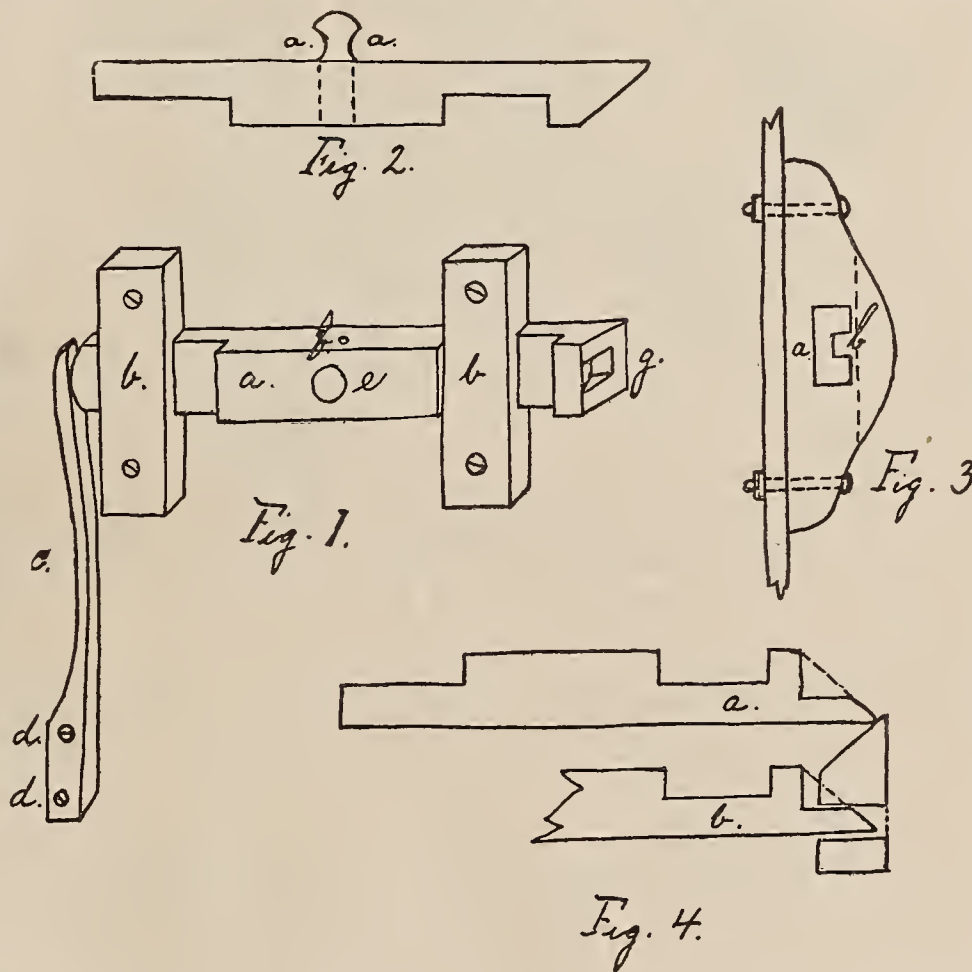
DEPTH OF SEEDING.—In his valuable book on "The Fertility of the Land," Prof. Roberts says: "Some plants are more likely to escape the vicissitudes of our erratic climate, if induced by good

dangerous; we are running the risk of possible accidents, to say nothing of the annoying part of it. Years ago I had a horse injured in this way quite seriously. It was passing the door at just the moment when the door was blown to and struck it. The horse jumped to get out of the way of the door and struck its hip against the other door-post, hurting itself so badly that it could not be used for weeks.

When cleaning out stables we often have the same trouble; the door closes when it is the least expected, just when we have a forkful of manure under way to be thrown out. Then we go and set a fork or stick against the door, and this, of course, takes time.

The device here illustrated is a facsimile of some I have in use; it is in the main an old-fashioned slide, but somewhat improved. The drawing is so explicit that a detailed description is not needed; a few general hints will be sufficient.

The main parts, slide and slide-blocks, Fig. 1 a and b b, should be made of well-seasoned hard wood, beech or maple preferable. Certain dimensions are not essential, but we should bear in mind that the smaller the scale, the closer work it requires to have the slide work well. Mine are made of two by two and one half inch blocks, the slide sixteen inches long. The spring, c, is made of a stick of



physical conditions of the soil to form roots at some distance from, instead of near to, the surface; while others, as winter wheat, do best if the fall feeding-roots form "thin two or three inches of the surface; hence air, moisture and nourishment should be associated in the best proportions and at the right distance from the surface." When a soil is fine and firm, the moisture rises near the surface, and the wheels of a grain-drill do not sink deep into the soil. Under these circumstances a splendid job of seeding can be done, the seed being covered about one inch deep in the bottom of the drill-mark. No roller should follow the drill—its place is before the drill. The little furrows left by the hoes are a protection to the plants, often preventing winter-killing.

FERTILIZERS.—In respect to fertilizers each farmer is under the necessity of determining for himself what kind of fertilizers are most profitable for his soil. After using rotted sods, stable manure and tillage, he may find some chemicals very profitable. Only experiment on his soil can determine this matter. DAVID.

DOOR-FASTENINGS.

Does every farmer know how many steps and frequent annoyances it would save if all our barn and stable doors were provided with spring-locks to shut, and spring-catches to fasten them when opened? How many times has it not happened that when we want stock of any kind to go in or out of a stable the wind slams it to just when a cow or horse is passing or is about to pass it? This may not always cause any harm, but it is

tough, straight-grained hickory, one inch square at the end where it is screwed to the door; the rest is shaved down to give it the necessary elasticity. The stiffness of the spring is governed by the proper adjustment of the two screws, d d. To open the door from the outside, the slide has a short pin, e, fastened by a screw, f, reaching into a corresponding slot in the door. Care must be taken not to let this pin project outside of the door surface, as it would strike against the barn when the door was opened. A couple of notches in the pin, Fig. 2 a a, will give the thumb and forefinger a better chance to operate the slide and pull the door open.

This same arrangement answers the double purpose of fastening the door when opened. The catch-block, Fig 3, is securely bolted to the barn; it has a square mortise, a, with a little tenon, b, to receive the slide, and the slide has on the slant a notch, Fig 1 g, to receive the tenon. The catch-block is slanted from the mortise to the outer edge to make the slide move back when it strikes. A cross-section of both slide and catch-block is shown at Fig. 4, in two positions; a, when the slide first strikes, and b, after it has entered into the mortise.

A door with this combination is a convenient affair; a little push with a slight slam will fasten it in either direction. If it should be left swinging, as it sometimes has to be, it matters not which way the wind blows, it can only slam once, and then fastens itself automatically. The force of the slam is greatly reduced by the action of the spring; for this reason the stiffer the spring the better.

G. C. GREINER.

IRON ROADWAYS FOR THE PRAIRIES.

Having given the subject of iron roadways some study I venture to give my opinion. I am satisfied that iron roadways are the thing for this prairie country. On the prairies ballast of any kind must in most cases be hauled long distances, making the cost of the iron roadway, even with double track, the cheapest. Any kind of ballast needs an amount of repair equaling the cost of a new road almost once in from six to ten years. The iron roadway would probably last two or three times as long, the repairs being almost nothing.

There need be no flange or elevation on the inner side of the rail. Make them perfectly flat; the wagons will not run off. In common country roads the wheels do not make ruts more than twice the width of the tire, no matter whether the ground is hard or soft. Teams traveling on ice for miles leave a regular wheel-trail not wider than the rut on the country road. I would make a rail after this fashion:



Let the rails be perfectly flat, eight inches wide at top and ten inches at bottom, with a bevel of an inch on each edge. Then wagons and bicycles can drive over them in any direction without inconvenience. The beveled edge will throw the horse's foot away from the edge of the rail should he chance to step on it, thus preventing the shoe from catching under the edge of the rail. Lay the rails so that the wagons will track near the inner edge. Then when the inner edges become worn change sides with the rails and get another season of wear. Let the bolts be countersunk with a long slope clear through the rail so that they will not come through by wear. Drain roads with tile in the center, not on the sides. It takes only one tile instead of two; lowers the water-level in the road center, and is much less liable to be filled by tree-roots. Illinois. M. W. GUNN.

GROWING CANTELOUPS.

The growing of canteloups for market is an excellent business for gardeners and truck-farmers. In the irrigated West, near a good market, an acre planted to canteloups pays better than any of the usual garden products, comprising more than a dozen vegetables. Market gardeners near Salt Lake City report the yield to the acre for several years to be 1,814 dozen, giving an income of \$1,088.40 each year. These figures are much higher than my experience warrants placing them. Planted six feet apart either way gives 1,210 hills, which average one dozen salable melons to the hill. These usually sell at fifty cents a dozen as an average for the season, making the income \$605 an acre.

Among the several canteloups and muskmelons that pay to grow are the Acme, Emerald Gem, Montreal and Haekensack. These ripen early and late, and enable the grower to be upon the market every day during the season. The best method of planting is to have the land laid off in squares six feet each way, and plant four or five seed in a hill, using the northern slope for the hill. When fully up and in sight along the rows, a cultivator, of two or five shovels, should be used between the rows, plowing both ways. Hand-weeding and a hoe are necessary when the plants are young. If irrigated, the water must be used sparingly until the fruit begins to set, when plenty of moisture improves the quality and increases the quantity. When the vines begin to run they should be hilled up similar to potatoes.

The pruning system, I find, is very important and increases the yield, if promptly and properly performed. Some merely pinch off the runners, while others cut with a hoe or knife. My plan is to cut back the main vines and trim off the surplus shoots with a pair of long shears. The prunings should be picked up and carried off the melon-field, as they destroy many young buds, blossoms and even fruit if left to wither and dry among the vines. Cultivation should cease after the vines begin to blossom, and the fruit should remain undisturbed until ripe. In marketing the canteloups should always be crated and assorted into two uniform grades. If mixed, big and little, the price will be cut accordingly. Put up one first-class grade and command the top market, while the second-class sells for the average price. JOEL SHOMAKER.

Our Farm.

A NOTABLE AGRICULTURAL CONVENTION.

THE annual convention of American Agricultural Colleges and Experiment Stations, recently convened in Minneapolis, was an important gathering of earnest workers in the cause of practical and scientific agriculture.

Prominent among the delegates were President H. H. Goodell, of Massachusetts; President G. T. Fairchild, of Kansas; President Cyrus Northrup, of Minnesota; President J. H. Canfield, of Ohio; President John Washburn, of Rhode Island; Director W. A. Henry, of Wisconsin; President H. E. White, of Georgia; Director W. M. Liggett, of Minnesota; Director A. C. True, of the office of Experiment Stations, Washington, D. C.; President A. W. Harris, of Maine; President C. E. Thorne, of Ohio, and others.

Without any preliminaries save a brief but hearty word of welcome from President Northrup, of the University of Minnesota, the convention began its work. The first thing in order was the report of the chairmen of the different sections. President C. S. Markland, of New Hampshire, spoke for mechanic arts; Director W. H. Jordan for agriculture and chemistry; Prof. P. H. Mell, of Georgia, for horticulture and botany; Prof. A. D. Hopkins, of West Virginia, for entomology; and President H. E. White for the section of college work.

The report of Director Jordan, of New York, excited the greatest interest and elicited the most discussion. He stated that over \$2,000,000 were now expended annually in instruction, training and investigation for the industrial classes. Of this sum about \$720,000 were appropriated for experimental station work or for investigation. The remainder was expended for instruction and training in practical agriculture and horticulture, the mechanic arts, and the sciences related thereto.

Inasmuch as a very large proportion of all the experiment station workers were teachers, Director Jordan took the ground that the work of investigation was suffering, and at the expense of the department of instruction. It was impossible to give the former branch the care, time and attention it deserved, because so many of the men at the stations were burdened with educational duties.

President Harris, of Maine, proposed a collective exhibit of the experiment stations of the United States for the Paris Exposition in 1900, and the following committee was appointed to take the subject under consideration and report at the next meeting: President A. W. Harris, Directors H. P. Armsby, W. H. Jordan, W. M. Liggett and M. A. Scovell. A committee was also appointed to provide ways and means whereby the graduates of our land-grant and other colleges should be granted access to the congressional library, the records and museums of the Smithsonian Institute, the national museums and bureaus of the various departments of the federal government.

Dr. True, of Washington, reported that all the agricultural literature would be indexed by the United States Department of Agriculture, just as fast as funds were available, and that Secretary Wilson was in favor of having the work pushed to its completion at as early a date as possible.

Among the notable addresses before the convention was one by Prof. Henry E. Armstrong, of the Royal Agricultural Society of England. He came as a special delegate from the United Kingdom, and the representative of the Sir John B. Lawes trust fund.

He described the work of the Rothamsted experiment station, and by means of a series of charts illustrated the results of different fertilizers upon wheat and barley for the last fifty years. The general results established the great value of nitrogenous manures, the secondary importance of minerals, especially the comparative insignificance of phosphates. The continued effects of barn-yard manure were shown to be excellent compared to commercial fertilizers, and their lasting qualities were most marked.

Dr. Armstrong dwelt upon the effect of climate and the availability of the natural food constituents of the soil, whose characteristics he was discussing, and stated that this availability might be regarded as one of the most important lessons of the half century's work at Rothamsted.

Dr. Wiley delivered an elaborate address upon the "beet-sugar industry." He showed the gradual increase in beet-sugar production in the United States from a few hundred pounds in 1850 to 40,000 tons in 1896. Enough beets could be raised on a tract of 1,000,000 acres, if properly cultivated, to supply all the sugar needed by the people of this country.

A pretty high average degree of heat appears to be essential to the successful cultivation of the sugar-beet. If the temperature averages less than seventy degrees Fahr. for the months of June, July and August, the beet will not thrive in perfection.

Dr. Wiley claimed that the sugar-beet was in itself a most valuable experiment station. If grown profitably it must be grown according to scientific methods; and when farmers realize that success or failure depends upon method of culture, they will not be slow to adopt better methods for other crops. In every locality where the sugar-beet is successfully grown the land has increased rapidly in value.

Professor Henry said that a beet-sugar factory had failed in Wisconsin, but the failure had been due to financial, rather than agricultural or climatic reasons. Many of the farmers of the state were well-to-do Germans, who had been engaged in beet culture in the old country, and they had been marvelously successful in raising beets on their Wisconsin farms. He predicted a bright future for the sugar-beet industry in that state.

The annual address by President Fairchild, of Kansas, showed the gradual change or evolution in agricultural education during the past forty years. The first idea was education for agricultural, the second education in agriculture, and the third education by agriculture. In other words, the introduction of the fundamental principles of plant and animal life, as a study of the every-day facts and forces of nature in our common schools, is now a dominating idea in agricultural education.

The association visited the Minnesota School of Agriculture, at St. Anthony's Park, also the branch experiment station at Crookston, Minn., and the Agricultural College at Fargo, N. D.

APPLE AND PEACH ORCHARDS OF SOUTH MISSOURI.

Statement showing the number of acres in apple and peach orchards, and estimated production of fruit for the year 1897, in the great fruit-growing district of south Missouri on the line of the Kansas City, Fort Scott and Memphis Railroad, Springfield to Thayer, inclusive:

Table with 7 columns: COUNTY, Acres in Apple Trees, Acres in Peach Trees, Acres in Bearing Apple Trees, Acres in Bearing Peach Trees, Estimated Apple Crop, Barrels, Estimated Peach Crop, Bushels. Rows include Greene, Webster, Wright, Texas, Howell, Oregon, and Totals.

IMPROVEMENT IN DAIRY HERDS.

In breeding for the dairy any marked improvement must be preceded and based upon a definite line of procedure. The one important factor above all others in the problem is the sire. Improvement of the dairy-cow—the average as found in the dairy herds of the country for foundation stock on that side—requires in the first place that the sire has come down from some of the best pure-blood milking strains of the breed he represents. But the intelligent breeder will not breed indiscriminately regardless of traits and qualities in the dam, neither will he let his selections from his heifer calves take rank in the same way.

No satisfactory improvement can be acquired in the dairy herd by a system which permits the indiscriminate slaughter of the heifer calves from year to year. Building up and improving a dairy herd, as applied to the average herds of the country, must be a procedure based upon the ap-

preciation attainable in the common or grade blood of the home yard by the introduction of the prepotent force of pure blood through the sires.

Not all heifer calves, of course, should be spared the block, but certain of the best from a certain line of cows. It frequently happens that an apparently unpromising cow will develop more than common traits as a milker and butter-producer as she ages. If such a cow has the marks of a good milker, and otherwise proves herself possessed of meritorious traits, it is wisdom to breed from her by as good a sire as can be found of the dairy type, trusting to the prepotency of the sire to stamp his inheritance of the dairy qualities sought upon his progeny in the female line.

Whether the female offspring of such a mating will inherit the good qualities of both sire and dam in intensified form time will develop. If she proves to be a good milker and butter-producer, the chances are favorable that if bred aright her heifer calves will be an improvement in these respects upon herself. If they are, and these are bred in the same lines as to improvement, the chances become more favorable that an improvement will be constant.

It is here that the value of improved pedigree stock is shown with the wisdom of proper selection and mating in breeding for the dairy. The characteristics of a breed, as represented in the pure-blooded sire, are fixed by harmonious breeding to produce those characteristics, and will be reproduced in the progeny of such a sire. The same tendency is strengthened in a proper course of breeding in our common and grade cows. Improvements in breeding have been reached by carefully selecting and then carefully feeding, which proves the truth of the statement that it is only possible to get the best from the best. The history of our improved breeds of stock proves this. The superiority which the Holstein breed of stock has attained as milkers, and the Jersey, Ayrshire and Guernsey as butter-makers, was acquired in no other way than by adopting and practically applying the philosophical doctrine of "the survival of the fittest," continued without deviation or any intermission for hundreds of years.

It may be proper to remark that here is where the value of a registered pedigree is apparent. The fact that a book contains the brief statement of the ancestors of an animal is nothing of itself; but the fact that it tells that an animal has certainly come from a long line of ancestors that have regularly transmitted their characteristics is everything; for it not only shows that the animal itself possesses the family characteristics to a greater or less degree, but that it, in turn, will be able to transmit them. The common, or grade, cow may reproduce herself or she may not. The purely bred cow will be very likely to reproduce herself, possibly

with slight variations, under proper breeding.

In many instances farmers are too prone to send their heifer calves to the shambles at ordinary prices. Cows bought cheaply are usually esteemed cheaply—perhaps generally at their true worth—and frequently at less than the real value. Cows bought instead of raised for the dairy upon the farm break up the possible line of improvement as outlined above.

Buying cows in the open market to keep up the numbers of the dairy herd involves a haphazard course of management which ultimately ends in failure, because let us do our best, there is still an almost limitless beyond for improvement. All cannot buy blooded stock to build up our dairies, even if it were desirable. That is the truest economy which makes the most of what we have. The cow raised upon the farm is likely to possess characteristics better suited to that farm than those purchased.

EXTRACTS FROM CORRESPONDENCE.

FROM MONTANA.—The Tobacco plains are situated in the valley of Kootenai river, on the British Columbia line. This is a new settlement. The plains proper, on the United States side of the line, are about ten miles north and south by six east and west. They are very rolling, with some scattered timber, and are surrounded by mountains on all sides. There is some very good land subject to homestead and desert entry, but it will take capital to develop the country, as we have to irrigate everything we raise. The soil is very good, of a loose, ashy nature, underlaid with sand and gravel. Water is very hard to get on the land owing to the uneven surface of the country. Water is plentiful in the streams, but for domestic purposes is hard to get, as there is so much sand and gravel to contend with in digging. The principal crops raised are barley, oats, wheat, and potatoes of a very good quality. Hay is also raised to some extent, principally timothy. The standard fruits have not been tried to any extent, but what few trees have been planted and properly cared for look well. Small fruits do well. There is some fine timber—fir, lull-pine, tamarac, sugar-pine, cedar, etc. The streams are full of fine fish. There are some deer, elk and bear in the mountains. S. L. R. Tobacco, Mont.

SOUTH FLORIDA HOMES.—Throughout the world the South Florida home has become celebrated for its gracious hospitality, its beauty and comfort. A home in Florida means something very different from the significance held by the name elsewhere throughout the world. It does not mean a stern fortification against the rigors of winter and the burning heat of summer, a defense against terrific winds and blasting storms, a retreat from cyclones and snows and torrents of rain. Neither does it mean, as in the older settled countries, a measure of relief from a swarming population, an expression of triumph in the race for wealth or a competence, a triumph over one's fellows, a demonstration of respectable standing in a community with a respectful deference to that community's tastes, traditions and standards. The building of a home in Florida means an occupation so delightful that the only regret connected with it is that it should ever come to an end. The typical Florida home is not a structure, but a growth. It embodies the taste of every member of a family and answers all their wants. It is planned and laid out in conformance to no rule or custom, but it is a purely individual growth, an exponent of individual taste. Thus it happens, and rightly, that the architecture of the Florida home is as varied as the fancies of its occupant, and carries suggestions of the prevailing styles of the countries which have contributed to our cosmopolitan population. But the choice of architectural styles or the planning of a house is the slightest of consideration in the making of a Florida home, where everything out of doors takes rightful precedence over all within. In a climate where people may live for comfortable lifetime in a dwelling constructed of a single thickness of boards, and where a lady has lived for three successive winters in a charmingungalow constructed of cloth and roofed with straw matting, with an ample stone fireplace for use on rainy days, it is of slight consequence what one happens to have over one's head when the weather makes confinement indoors imperative. A house of wood or of stone or of canvas one may have anywhere, and unhappy the man or woman who is compelled to stay in it! It is the vines and blossoming shrubs one plants; the orchard which one nurtures, and which in turn supplies the beautiful table; the berry-patches with their loads of fragrant fruit; the dainty little vegetable garden, where every product is given due prominence and most favorable conditions; the great oaks which spread their grateful shade just where the tired worker loves to encamp; the charming walks laid out through pines or groves; the delightful views of gulf or bay or fruitful valley; the little secluded nooks by rippling streams; the bit of stonework overgrown with ivy; the long dreamy vistas under trees; the bed of violets in a moist corner; the roses radiant with ten thousand blooms; the rustic bridge—all the countless arts of the gardener, who is a poet as well as a tiller of the soil—which makes the best and most indispensable part of the Florida home. Some of these devices may be practised even on a tiny city lot, but the city is recognized in Florida as a necessary evil, and only the rich can establish genuine homes within its limits. Charming as are many of the home sites already chosen throughout our state, the ideal residence spots are yet ready to be chosen by the home-seeker, and may still be had for a song. The time will come when all the neglected heights along the gulf will be dotted with homes, and these, crying, vine-hung and bloom-embowered, each with its bit of fertile land, producing fruits in abundance, will be eagerly sought as dwelling-places, and take honored place in the classics of the future. W. H. M. Jacksonville, Fla.

Affected Her Heart

My daughter had a swollen neck and also had heart trouble. After the least exertion she won't breathe so hard she could be heard all over the room. Her limbs were badly bloated. Her father insisted that she must take Hood's Sarsaparilla and we gave her about six bottles, when she was cured and there has been no return of her ailments." Mrs. EMMA THOMAS, North Solon, Ohio.

Hood's Sarsaparilla

The best—in fact the One True Blood Purifier. Sold by all druggists. \$1; six for \$5.

Hood's Pills

are the best after-dinner pills; aid digestion. 25c.

L. F. ABBOTT.

Our Household.

MY OWN.

BY ELLA HOUGHTON.

I love him, for he's always kind; I love him for his noble mind.

His voice ne'er gives a tone of fret, Discouraged wail, nor e'en regret.

Each day he makes the best of life, Seeks happiness, but never strife.

A happy heart, the dower given To him I love—a gift from heaven.

Methinks the cloud with silver lining Through his dear heart is ever shining;

For he finds joy the livelong day; God knows it is a happy way.

What wonder then that I, his wife, For his love breathe thanks each day of life?

No matter that the dark days come, He finds a hope and brings it home—

Instead of sorrow evermore, To one who waits within the door

For the loving clasp of that strong arm That ever shields her safe from harm.

His smile is sunshine, love and gold, Such love as never does grow old.

His thorough worth none e'er denies, God bless my love! I won the prize.

HOME TOPICS.

BLACKBERRY PUDDING.—Many people who like the flavor of blackberries cannot eat them on account of the seeds. Stew a quart of blackberries, using a teacupful of water. Sift the berries or put them through a fruit-press to remove the seeds; put the juice back into the saucepan, with a scant teacupful of sugar. Let this come to a boil, and then add five tablespoonfuls of corn-starch stirred smooth with a little cold water. As soon as it thickens, pour into molds, and serve cold with cream and sugar. Raspberries or grapes may be used in the same way. Another good pudding may be made by preparing the fruit-juice and pulp as above, and pouring it over split and buttered Graham biscuit or slices of either white or Graham bread buttered and laid in a pudding-dish. Serve cold either with or without cream. Sometimes I make a meringue for the top of this pudding, using the whites of eggs when I want the yolks for salad dressing. By the way, the yolks of eggs can be kept fresh for a day or two, if you are not ready to use them at once, by putting them, unbroken, into a bowl, and covering them with cold water. Set the bowl in a cool place.

HOT-WEATHER HINTS.—It seems to me August is the most trying month of all the year. The weather may not be hotter, but we are tired out with the heat that has gone before—the heat and work—for to the housekeeper summer brings much added work in the way of canning, jelly-making, pickling and preserving. Now, in August so many things must be looked after to keep them from spoiling. Mold and mildew are on a constant watch to outwit the housekeeper. Meat that will keep a week in cool, dry weather will hardly remain fresh twenty-four hours without ice, which is not always at hand.

If you wish to save the trimmings of a roast for soup, and do not want to use

The bread-box must be carefully washed and dried before each new baking is put away. If there are any pieces of bread left over, dry them thoroughly in the oven, and then they may be kept for puddings, crumbs for breading, etc.

Bny cheese in small quantities, and wrap in a cloth wrung from strong salt-water; then look to it every day.

Flour, meal, Graham-flour and all cereals must be kept in a dry, cool place, and covered tightly to keep out insects.

Be very careful not to have any clothing left damp, or it will mildew. Soiled clothes damp with perspiration should be dried before they are put into the bag or basket. Do not leave old shoes lying in the closet. If they are past wearing, throw them away at once; burying them in the garden is a good way to get rid of them. I know all these things are troublesome work, but there is no other way to be sure nothing is wasted, nothing but healthful food put on our tables, and no mold or decay poisoning the air of our homes. It is a task we must attend to ourselves or we cannot be sure it will not be neglected.

MAIDA MCL.

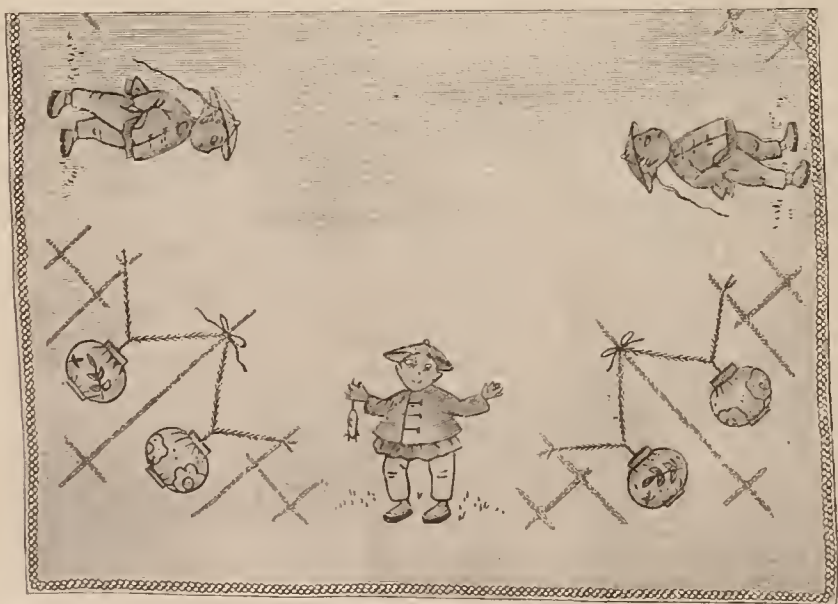
SUMMER NOVELTIES.

CORN-NAPKIN.—This requires one half yard of linen before it is fringed. Draw threads all around, then hemstitch, and fringe when complete. For the design work the ear of corn in solid Kensington stitch. For the benefit of new workers I will explain that this stitch is a long stitch worked from yon. With some patterns the stitches can be part long and part short, especially when working large flowers or large leaves. The lettering can be done in chain-stitch or outline.



Lay the napkin upon the platter, the corn upon it, then fold the end over, and the corn keeps hot without becoming soggy, besides being a very beautiful table decoration.

WICKER TABLE-COVER.—Poppies are this season considered the very "smartest" table-flower. A cover worked in a design of poppies in a variety of designs



the soup at once, put all the bones and trimmings into a pan, and bake in the oven an hour or so; then they will keep a day or two, and be really improved for soup by the baking. Meat that has been previously cooked—pieces of roast, steak, etc.—are just as good for meat-pies and pot-pies. Slices of cold, rare roast beef are nice broiled for breakfast.

and colors carries out the entire effect of the artistic arrangement of the natural flowers.

Select a heavy linen, make it fit your table, then put around the edge a two-inch hem, and finish it with double hem-stitching.

CHINESE TABLE-COVER.—These come stamped upon satin sheeting, and are col-

ored with indelible colors, the edges being outlined with heavy silks in harmonious colors. The edge is finished with a rick-rack braid stitched on with green silk-thread with the sewing-machine.

A MINT-STICK.—This is a dainty sachet for your handkerchief-box. Make a roll of stiff paper to simulate the size of a stick of peppermint candy, stick together with tube-paste. Put into it your favorite sachet-powder, and a little cotton in the ends to keep it in. Cover with white satin ribbon put on as you would roll a paper-lighter, then cover the joining with red satin baby ribbon, put on as the candy is striped. A candy-jar filled with them in a case of fancy work deceived a good many of us for a few moments.

BELLE KING.

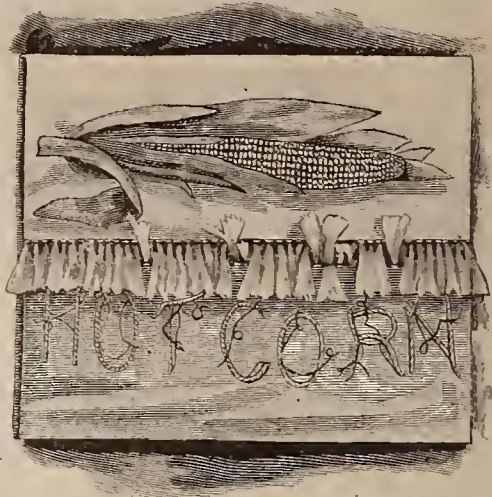
TO REPLENISH THE PURSE.

Available methods for replenishing empty pocket-books are eagerly looked for by farm wives and daughters, and the subject is one of solicitous inquiry and study. Yet the means and opportunities at hand are the ones most often overlooked, and it is the unattainable that is wished for and reached for without avail. When appealed to, as we often are, for suggestions upon this line of undertakings, we have wondered at the little attention given by our sister friends to the possibilities within their grasp and keeping. But, strange to say, the practical suggestion of beekeeping is looked upon with little favor, and only from the very fact that so little thought has been given to the subject as to render the remunerative side of it as obscure.

Honey is one of the inexpensive luxuries of which the demand is almost invariably in excess of the supply. It is an article of

she does not like bees, and they do not like her. She has all she can do besides, and then I love the work so well myself that I prefer to take the entire care of them. She helps me to take care of the profits."

But if by a few hours of two afternoons of each week he could look after thirty colonies of bees and sell from them over three hundred dollars' worth of extracted honey, besides having an unlimited family supply, I see no reason why a woman



could not do nearly or quite as well if inclined to exert herself in this direction. We know of women who are succeeding in this line of employment, and making much more than three hundred dollars a year from it. They are scattered all through the land. They have equipped themselves for the business, make a study of the subject, take and carefully read a number of bee journals, make exhibits at the fairs, and they are making name and money.

A colony of bees may often be bought for five dollars. The usual price, we are told, is from eight to ten dollars a colony, but we have known them often offered and sold at five dollars a hive where the owner has plenty and wishes to dispose of some of them.

The first honey is gathered from apple and plum blooms of April. With the coming of August white clover and a common weed everywhere known as heart's-ease come into bloom. White-clover honey has a reputation that is world-wide, and that extracted from heart's-ease is of a most pleasant and agreeable flavor. Alfalfa honey is said to be of extra quality, and as alfalfa has become one of the most popular and common field crops of the great West, there is small excuse for the would-be wage-earner who would like to attempt beekeeping if— For there are now no serious ifs in the way.

Our papers are all too often filled with the unpractical mentionings of "ways for women to make money." Life and living is a serious thing and no child's play about it. Work to do that will be remunerative is what all are seeking for who are ambitious, willing and yet unemployed. We are not so much seeking work that is "easy" as work that is profitable. There is no walk in life that entails actual labor that is entirely easy or altogether pleasant. But we may make it a pleasure to a great extent, no matter what the task the hand finds to do if heart and soul be interested therein, and if there be a determination to succeed, to be independent and to be hopeful and helpful.

Take upon yourselves the care of a plot of well-fruited ground, add a few, or even



one or two, colonies of bees thereto, give all the care and thought of which they are worthy, and surprising will be the results in income in an almost incredibly short space of time. Both branches of culture grow so rapidly into money. From a single colony of bees one soon has hives well populated and all one can attend to. There may be honey to dispose of almost the year round. And fresh berries and small fruits of all kinds are never found begging for a market.

ELLA HOUGHTON.

TRIAL FREE.

If you have rheumatism, try that simple remedy which cured me. Trial package and other information free. Address John A. Smith, Dept. H, Milwaukee, Wis.

FRUIT DESSERTS—PEACHES.

1. Peaches and Cream.
2. Peach Gelatin.
3. Fruited Gelatin.
4. Peach Shortcake.
5. Peach Pie.
6. Peach Cottage Pudding.
7. Peach Pudding.
8. Frozen Peaches.
9. Peach Dumplings.

PEACHES AND CREAM are looked upon as a sort of ideal dish, and in truth they are certainly very delicious. Care should be taken to use only fine, ripe, juicy peaches. So many peaches on the market are sold before they are fully ripe, and in consequence thereof are hard and less palatable. Pare your peaches thinly, remove the stones, and quarter them, or if they are very large, divide them into eighths; place them in the dish in which you intend to serve them, and set aside in a cool place. Do not forget to cover the dish, as it will prevent more or less discoloration of the fruit. This dish should be prepared about an hour before serving, and should be placed in a refrigerator or other cool place. The sugar (powdered) and cream should be passed individually at the table. The cream can be used either plain or whipped, the latter being better liked, as a rule, when it is whipped to a thick snow, sweetened with powdered or confectionery sugar and flavored with vanilla extract to taste.

Ice-cream is also a very delicious elaboration of the dessert peaches and cream. Some people in preparing this dish cut up the peaches several hours before serving, placing first a layer of peaches and then one of powdered sugar in the dessert-dish, allowing the same to stand in refrigerator or other cool place. This dessert, while very pleasant, is perhaps not as pretty as the above, because the peaches are apt to discolor to some little extent, and also to soften through the aid of the sugar; still it may prove an agreeable variation occasionally.

PEACH GELATIN.—Take one half dozen ripe peaches, pare and quarter them, and sprinkle with a little sugar. Soak a package of gelatin in one pint of cold water for one half hour, add one and one half pints of hot water, and stir until the gelatin is dissolved; then sweeten to taste with sugar, and add a few drops of almond flavor, after which add the peaches. Set away in a refrigerator or other cool place to harden. This dessert is better if made the day before, as it requires some little time to set, especially in the warm weather. Serve plain or with sugar and cream.

FRUITED GELATIN.—This is a very elaborate dish, and one which might be made on special occasions when something more than the ordinary is desired. Peel and divide into sections three large oranges, not failing to remove all the seeds. (Navel oranges are to be preferred, because they are seedless, and are exceedingly sweet and juicy.) Peel and

preparing it properly, into your dish, and pour over the whole the prepared gelatin mixture. Set on ice to harden. When ready to serve, garnish the top with the whites of six eggs beaten to a snow. The yolks can be used in the sauce, which is made as follows: Beat the yolks of the six eggs, with a cupful of sugar and two teaspoonfuls of corn-starch; scald one quart of milk, turn it into the above mixture, strain, and heat until it thickens, stirring all the time; add a little vanilla extract and a pinch of salt, and let it cool before serving. This, as you will see, is a very fancy dish, but at the same time a very delicious one without being rich enough to disturb one's digestion. Very frequently the gelatin with fruit alone is served without the beaten snow and sauce, and it is a question which is preferable.

PEACH SHORTCAKE.—Carefully pare and cut into thin slices three pints of fine, ripe peaches. Put the fruit into a large dish, and sprinkle it with a cupful of powdered sugar, and let it stand in a refrigerator or other cool place for some little time—while you are preparing the dough for the shortcake. Sift through a sieve one quart of flour, one teaspoonful of soda, two of cream of tartar (or the equivalent—baking-powder), one of salt and one of sugar. Now rub four tablespoonfuls of butter or lard into the mixture, and add one and one half cupfuls of milk; mix quickly until smooth and firm. Divide this into three parts, and roll each out to about the size of a tin pie-plate. Bake in a hot oven for ten minutes. When the cakes are done, split each into halves quickly with a sharp knife; place the lower portion of each on a dish, and spread with butter, adding a layer of peaches. Place on the top piece of crust, spreading same with a little butter; add a layer of peaches, and cover with whipped cream. (Cream whipped to a stiff froth, sweetened and flavored, is to be preferred.) This shortcake is liked by many served hot, although it would also be very palatable if served cold, omitting the whipped cream until passed at the table, when the whipped cream should be served individually, or else the shortcake served in deep dessert-plates with iced milk.

PEACH PIE.—Carefully pare and stone your peaches. Line your pie-plates with paste, and place your peaches in same; add to each pie about a cupful of gran-

other mixture. After beating up well add your sliced peaches, and bake in a loaf. Be sure to grease the pan. Serve with hard sauce, which is made as follows: Cream well together one half cupful of butter and one cupful of fine sugar; place on a plate, and grate over it a little nutmeg. This should be kept in a cool place until the pudding is served.

PEACH PUDDING, as now given, is a va-

with whipped cream or ice-cream. While whipped cream may be served with almost any peach dessert, it is not necessary, nor is it desired by every one, some having a decided aversion to milk or cream in any form.

Most of the above-collected recipes may be served without the cream—either plain or with hard sauce.

EMMA LOUISE HAUCK.

PIECES OF BREAD.

With good bread there should be never a waste. Having poor bread, it is all waste from beginning to end. Inferior, cheap grades of flour invariably give inferior bread returns, and it is money wasted, health impaired and an always disappointed, disheartened cook. Beautiful bread makes beautiful toast. And a delicately served plate of dry toast or a dish of milk or buttered toast is appetizing and acceptable at almost any time. The half and quarter slices of bread that are frequently left upon the plate, and then become somewhat dry, if toasted to a crisp, light brown condition in a hot oven, make a delightful breakfast article of diet if dipped quickly, bit by bit, into hot coffee that is properly made and seasoned with cream and sugar, and then buttered with delicate, sweet butter, such as the farm affords. The oven must be hot, and the toast carefully watched, and the slices often turned.

Dry pieces of bread dipped into beaten eggs and fried brown in sweet butter is always an acceptable form of presenting "pieces" to the family at table. Buttered alone it is nice. Jellies or maple syrup add to its palatable qualities.

Fresh slices of toast dipped quickly into and out of hot water, seasoned with salt, pepper, butter and a few spoonfuls of thick sweet cream, is very nice to be eaten with poached eggs. To poach the eggs, drop them from the broken shell into salted boiling water, cook to the condition preferred by individual members of the family, take out upon a hot plate with a milk-skimmer; season with butter, pepper and salt.

NEDELLA.

A SCHOOL-DRESS.

The last two weeks of August should be taken to put in repair or make new a suitable wool dress for early fall wear at school. Too many parents leave this preparation too late, and frequently severe colds are taken by not being clad in proper clothing for the rainy and often cool days of September. This jacket-and-skirt suit is serviceable, as it will answer for cool or warm days. The shirt-waist under the jacket does for the house, while the jacket serves for outdoors.

If this is made in mohair and trimmed with braids, it makes a very attractive suit. Or a light-weight cloth material will last the entire season. See to it also that rubbers, mackintosh and umbrellas are where they can readily be found at this season.

Many are now agitating the subject of having only white shirt-waists, either of linen or batiste, as they launder well until worn out, which cannot be said of the fleeting-colored novelties. A dark straw sailor or a tam-o'-shanter goes well with this suit.

L. L. C.

POINT-LACE, WITH TATTING.

Mark the pattern upon white paper-cambrie with ink, and let it dry. Then baste the braid upon it, finish all the lace-stitches first, then make the tattering shapes, and attach them with lace-stitches. Use the best make of white spool-cotton for the tattering. No. 40 being a good number for the coarse braid, and No. 60 for a finer quality.

L. L. C.

VINEGAR PIE.

To two eggs slightly beaten add half a cupful of sugar and one rounded tablespoonful of flour; beat these until very light, then add a half pint of cold water, four tablespoonfuls of vinegar, flavor to taste with nutmeg. Bake like custard pie.

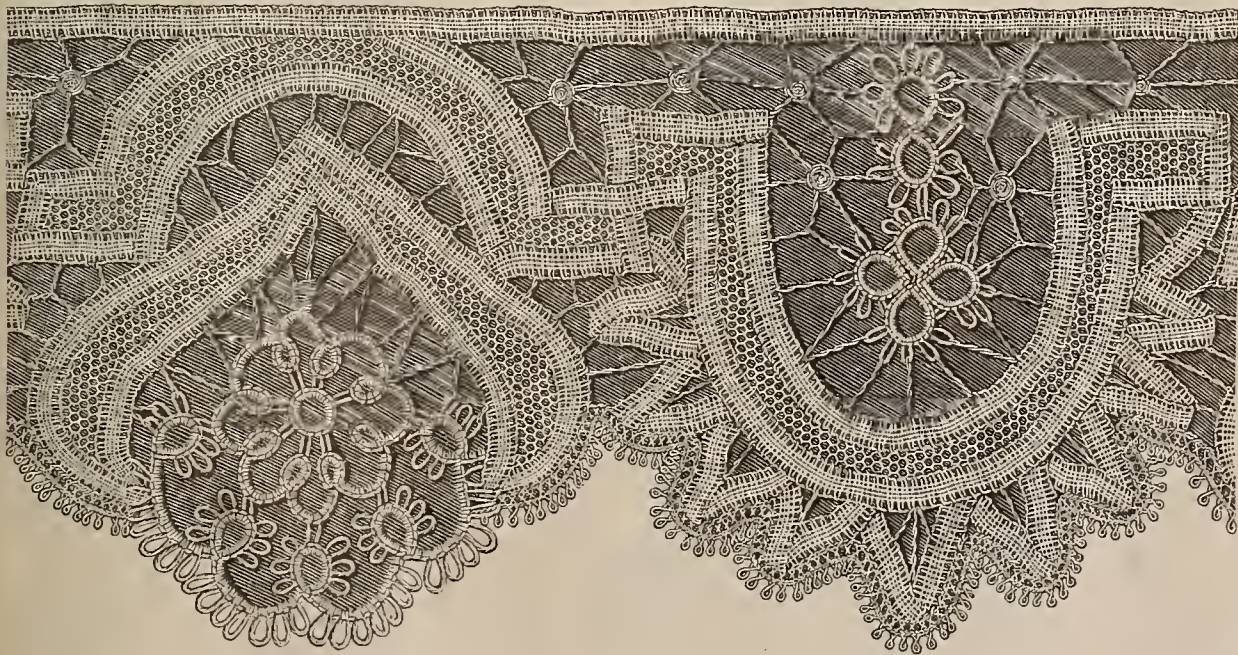
MRS. ROBERT J.

My wife had an attack of Lung trouble. She coughed incessantly and raised enormously. Jayne's Expectant, by the blessing of God, restored her.—(Rev.) JOS. HOPKINS, West Berlin, N. J., Feb. 18, 1894.

Aid digestion with Jayne's Painless Sanative Pills.

A \$100 BICYCLE FREE.

Some one will get a \$100 bicycle absolutely free, and that one will be the winner in the August prize contest. See page 19 for full particulars.



slice crossways three large bananas. The meats of twelve English walnuts, a few ripe strawberries and three large peaches, pared and quartered, are also to be used. Soak a package of gelatin in one half pint of water for half an hour, adding one and one half pints of hot water, and stir until the gelatin is dissolved; sweeten to taste, and flavor with a little orange extract. (The grated rinds of the oranges can be used instead of the flavoring, in which case the gelatin should be strained.) Place all the above-mentioned fruit, after

ulated sugar; cover your pie with the second crust, not neglecting to make the usual slashes and fork-prickings in same. This pie is very nice when served with whipped cream, and even more so with vanilla ice-cream.

PEACH COTTAGE PUDDING.—Make a batter consisting of three tablespoonfuls of melted butter, one well-beaten egg, one cupful of milk, one pint of flour and one and one half teaspoonfuls of baking-powder. The flour and baking-powder should be sifted together through a sieve into the

ing them well covered; then mash them fine, and add one quart of cold water. Freeze the same as ice-cream. This is perhaps not practicable for all, many of whom may not be in the habit of freezing cream, but it may be available for at least a few.

PEACH DUMPLINGS.—It is hardly necessary for me to give the recipe for this dessert, as I have hitherto in a former issue given the recipe for blackberry dumplings, which will do for this dessert. Peach dumplings are very delicious when served

40 Cent Patterns for 10 Cents

These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only 10 Cents Each.

Full descriptions and directions—as the number and yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—accompany each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there

being a *separate* pattern for every single piece of the dress. All orders filled promptly.

For ladies, give BUST measure in inches. For SKIRT pattern, give WAIST measure in inches. For misses, boys, girls or children, give both BUST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded. To get BUST and BREAST measure, put the tape measure ALL of the way around the body, over the dress close under the arms.

Special price of each pattern, 10 cents. Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.



No. 6999.—LADIES' SHIRT-WAIST. 10c. Sizes, 32, 34, 36, 38, 40, 42 and 44 inches bust.
No. 7011.—Same Pattern—Misses' Size. Sizes, 12, 14 and 16 years. 10c.



No. 7130.—LADIES' SHIRT-WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.
No. 7124.—LADIES' FOUR-PIECE SKIRT. 11c. Sizes, 22, 24, 26, 28 and 30 inches waist.



No. 7040.—MISSSES' SHIRT-WAIST, WITH STOCK COLLAR. 10 cents. Sizes, 12, 14 and 16 years.



No. 7009.—LADIES' SHIRT-WAIST. 10c. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.
No. 7010.—Same Pattern—Misses' Size. Sizes, 10, 12, 14 and 16 years. 10 cents.



No. 7043.—LADIES' WRAPPER, WITH WATTEAU PLAITS. 11 cents. Sizes, 32, 34, 36, 38, 40, 42 and 44 inches bust.

Your patterns are all that a person could wish for—perfect in every way—the only trouble being that I cannot get them fast enough. MRS. JULIA C. IRONS, Parkman, O.



No. 7060.—LADIES' SHIRT-WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.
No. 7064.—Same Pattern—Misses' Size. 10 cents. Sizes, 12, 14 and 16 years.



No. 7127.—LADIES' WAIST, WITH FANCY BOLERO. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7112.—LADIES' BASQUE, WITH TWO UNDER-ARM GORES. 10 cents. Sizes, 32, 34, 36, 38, 40, 42 inches bust.



No. 7059.—MISSSES' WAIST. 10 cents. Sizes, 12, 14 and 16 years.
No. 7047.—MISSSES' SKIRT. 11 cents. Sizes, 12, 14 and 16 years.



No. 7121.—LADIES' AND MISSSES' BLAZER. Sizes, 32, 34, 36, 38 and 40 inches bust. Misses' sizes, 12, 14 and 16 years. 10 cents.



No. 7139.—LADIES' MOTHER-HUBBARD WRAPPER. 11 cents. Sizes, 32, 34, 36, 38, 40, 42 inches bust.



No. 7094.—LADIES' CORSET-COVERS. 10c. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7122.—CHILD'S DRESS. 10 cents. Sizes, 2, 4, 6 and 8 years.

WE HAVE OFFICES IN NEW YORK CITY, SPRINGFIELD, OHIO, AND CHICAGO, ILLINOIS.

NOTICE.—Send all orders for patterns direct to the central office, to FARM AND FIRESIDE, SPRINGFIELD, OHIO, where our stock of patterns is kept.

Our Sunday Afternoon.

WHAT TIME IS IT?

What time is it?
Time to do well—
Time to live better—
Give up that grudge—
Answer that letter—
Open that kind word, to sweeten a sorrow;
To that good deed you would leave till to-morrow.

Time to try hard
In that new situation—
Time to build up on
A solid foundation.

Giving up needlessly, changing and drifting;
Leaving the quicksands that ever are shifting.

What time is it?
Time to be thrifty;
Farmers, take warning—
Plow in the springtime—
Sow in the morning—

Spring rain is coming, zephyrs are blowing;
Heaven will attend to the quickening and growing.

Time to count cost—
Lessen expenses—
Time to look well
To the gates and the fences;

Making and mending, as good workers should;
Shutting out evil and keeping the good.

What time is it?
Time to be earnest
Laying up treasure.
Time to be thoughtful.
Choosing true pleasure;

Loving stern justice—of truth being fond;
Making your word just as good as your bond.

Time to be happy.
Doing your best—
Time to be trustful.
Leaving the rest.

Knowing in whatever country or clime,
Ne'er can we call back one minute of time.
—Liverpool Mail.

A NEGLECTED PAIN.

ONE of the beneficent arrangements of divine providence is pain. It is the signal of danger, the telegraphic alarm from the outposts intimating the presence of an enemy. Without the protection of pain a man warming his feet might burn them off, and the human system might be destroyed if it were not for the protection afforded by pain.

Many people neglect the intimation of pain; they use narcotics to deaden the sense of pain; they treat pain's warnings as if they were of no account, and by and by, when it is too late, they find that they have done themselves mischief which they can never repair.

Every pain has its use; and if we are to enjoy health we must pay attention to the admonitions of pain. Most pains, if taken in season, can be promptly relieved. Rubbing, heating, bathing and similar means frequently bring immediate relief, and if pains are obstinate the effort to relieve them should be the more persistent; but on no account should we treat pain with indifference: it is like an alarm bell; it is a warning note uttered for our protection and for our safety. We should thank God for pains, which caution us, warn us and protect us; and should immediately seek to remove the causes which produce pains, and so guard our health and lengthen out our lives.

WASTING TALK.

All human beings need instruction, counsel, guidance in a greater or less degree. No one person knows or can know everything. Some through age, experience and wisdom are qualified to be counselors and advisers. Others will not do this. They are indifferent to the welfare of those around them, and allow them to go their way and take the consequences. Others, more careful and sympathetic, seek to save the young from the evils and troubles which their experience might bring upon them. Often, however, their labor is vain; their advice is unwelcome and their words are wasted. It is useless to try to pour water into a corked bottle, or to give advice to some conceited youth who knows it already, and who turns up a pretty nose, and goes on regardless of the counsel of friends, parents or any one else.

There is one school for such persons. It is a dear one. It is the school of experience. Its lessons are enforced by blighted hopes, ruined health, blasted reputations, broken hearts; but it is the only school in

which certain persons can be taught. They hate knowledge; they despise instruction. Foolishness is bound up in their hearts, and only affliction, disappointment and sorrow can drive it from them.—Common People.

GROWTH IN SERVICE TO OTHERS.

It is a well-known law in the natural world about us that whatever has no use, that whatever serves no purpose, shrivels up. So it is a law of our own being that he who makes himself of no use, of no service to the great body of mankind, who is concerned only with his own small self, finds that self, small as it is, growing smaller and smaller, and those finer and better and grander qualities of his nature, those that give the chief charm and happiness to life, shriveling up. Such a one lives and keeps constant company with his own diminutive and stunted self; while he who, forgetting self, makes the object of his life service, helpfulness and kindness to others, finds his whole nature growing and expanding, himself becoming large-hearted, magnanimous, kind, loving, sympathetic, joyous and happy—his life rich and beautiful. For instead of his own little life alone he has entered into and has part in a hundred, a thousand, aye, in countless numbers of other lives; and every success, every joy, every happiness, coming to each of these, comes as such to him, for he has a part in each and all.—Ralph Waldo Trine.

JOYFUL CHRISTIANS.

The religion of Christ is joy-giving. All who embrace it and make it a part of their life have the principle of joy implanted within them. Jesus said of his teachings and their results, "These things have I spoken unto you, that my joy might remain in you, and that your joy might be full." Sin is the fruitful source of sorrow and condemnation. To be freed from it through the forgiving love of Christ is to be filled with all joy and peace.

A Christian without joy is hardly to be imagined. For it is the very nature of Christianity in the soul to produce purity and righteousness, and where these elements are found there must be at the same time the element of joy. The Christian should always be happy. He may have troubles and losses, temptations and crosses; but in the midst of these he is happy. He is happy because he has faith in God and in Jesus Christ his Savior, and the guidance and comfort of the Holy Spirit.

TRUE CONTENT.

"It ain't so hard to be contented with the things we have," said the old woman, dolefully; "it's bein' contented with the things we haven't that's so tryin'."

"I don't know about that; I don't know," said Uncle Silas. "When we begin to look at the things our neighbors have and we haven't, we always pick out just the things we want. They live in a nice house, we say, and we have only a little one. They have money, and we need to count every penny. They have an easy life, and we have to work. We never say: They have the typhoid fever, but it did not come near us. They have a son in the insane asylum, but our brains are sound. Staggering feet go in at their grand door, but nothing worse than tired ones come home to ours at night. You see, when we begin to call Providence to account for the things that don't come to us, it's only fair to take in all kinds of things."

THE DIVINE MEASURING-ROD.

Let us measure our duty in giving. What shall be the measuring-rod?

- 1. Your capacity. "She had done what she could."
2. Opportunity. "As ye have opportunity do good unto all men."
3. Your convictions. "That servant which knew his lord's will and prepared not himself, neither did according to his will, shall be beaten with many stripes."
4. The necessities of others. "If a brother or a sister be naked, or destitute of daily food," etc.
5. The providence of God. "Let every man lay by him in store as God has prospered him."
6. Symmetry of character. "Abound in this grace also."
7. Your own happiness. "It is more blessed to give than to receive."
8. God's glory. "Honor God with your substance."—Watchman.

WALL PAPER
Write to the largest wall paper house in U. S. for samples—mailed free.
From 2 1/2 cts. to 3 1/2 a roll—8 yards.
Our prices 30 per cent. lower than others.
KAYSER & ALLMAN, PHILADELPHIA.
932-934 Market St. 413 Arch Street.

OHIO NORMAL UNIVERSITY
ADA, OHIO.

A complete school of twelve departments: Literary, Military, Law, Pharmaceutical, Civil Engineering, Electrical Engineering, Commercial, Stenographic, Music, Fine Arts, Telegraphic, Elocutionary. The Literary department embraces Preparatory, Teachers' Scientific, Literature, Classical and University courses. Last annual enrollment 3073 different students. Has university power, confers degrees. Is chartered by the State, recognized by the National Government, having military department under the supervision of an officer detailed by the Secretary of War. \$10, in advance, will pay board, room-rent and tuition 49 weeks; \$100, 40 weeks; \$25, 10 weeks. Board and room, when paid by the week, \$2.25 to \$2.50. Text-book rent cheap. Good library, excellent literary societies. Students can enter at any time and find suitable classes. No vacation except holiday week. Money refunded if everything is not as advertised. Send for catalogue. H. S. LEHR, Pres.

LINE NE REVERSIBLE COLLARS and CUFFS.
ARE NOT TO BE WASHED.
Made of fine cloth in all styles.
When soiled, reverse, wear again, then discard.
Ten collars or five pairs of cuffs for 25 cents.
They look and fit better than any other kind.
ASK THE DEALERS FOR THEM.
If not found at the stores send six cents for sample collar and cuffs, naming style and size.
A trial invariably results in continued use.
Reversible Collar Co. 43 Milk St., Boston, Mass.

DO YOU WANT ONE FREE?
With the Patented Quaker Bath Cabinet you have at home, for 3c. each, Turkish, Russian, Sulphur, Hot Air, Vapor or Medicated Baths. No more Bath Tubs or Dr. Bills. Absolute home necessity, producing Cleanliness, Health, Strength, Renovates system; prevents Disease, Obesity, Cures without Medicine, Colds, Rheumatism, Neuralgia, Malaria, La Grippe, Eczema, Catarrh, Female Ills, Blood, Nerve, Skin and Kidney Diseases. Beautifies Complexion. Made of Best Antiseptic, Hygienic Cloth.
Agents wanted. If you want one free, write C. WORLD MFG. CO., CINCINNATI, OHIO.

FRANKLIN COLLEGE NEW ATHENS, O.
73d yr. Board, tuition, room and books, \$2.80 to \$3 a wk; total cost \$140 a yr; 8 courses; course for D.D., Ph.D., &c; catalog free, with plan to earn funds. W. A. WILLIAMS, D.D., Pres.
MENTION THIS PAPER WHEN ANSWERING ADVERTISEMENTS.

For Cheap Grazing Lands
in Western Kansas, New Mexico and Arizona; also information respecting desirable
Stock Ranch Locations
on the line of the Atchison, Topeka and Santa Fe Railway in the
Great Southwest
apply to JNO. E. FROST, Land Commissioner, Topeka, Kansas.

CINCINNATI, JACKSON & MACKINAW RY.
IS THE ONLY LINE
Running Solid Trains Through Between
Cincinnati and Jackson
TWO TRAINS EACH WAY
Day trains are equipped with elegant Coaches having all the modern improvements. Pullman Palace Sleeping and Reclining Chair Cars and first-class Coaches are attached to night express trains. Close connections are made at Cincinnati with Southern Lines to and from all principal southern points, and with Michigan Central R. R. trains at Jackson to
AND FROM....
All Points in Southern Michigan
For information as to rates, time of trains, etc., call on C. J. & M. Agents or address the Gen'l Pass. Agent.
F. B. DRAKE, T. C. M. SCHINDLER,
Recr. & Gen'l Agr. Gen'l Pass. Agt.
TOLEDO, OHIO.

"I have really been surprised at my success in getting subscriptions for the Farm and Fireside and Woman's Home Companion," writes Mr. W. M. Mattox, Anthony, Kan. "Six hours' actual work will cover the time I spent in disposing of the twenty-five Peerless Atlases I started with yesterday. Find the names and addresses of the twenty-five subscribers herewith; also an order for another lot of Peerless Atlas, which certainly is a most successful premium."

OPIUM HABIT AND DRUNKENNESS
Cured in 10 to 20 days. No Pay till cured. DR. J. L. STEPHENS, Lebanon, Ohio.

\$1.50 SET OF SPOONS FREE
We will give this Set of Six Silver-plated Teaspoons FREE to club raisers for 6 remainder-of-this-year subscribers to Farm and Fireside. The subscribers may accept any offer in this issue.
Price of this Set of Six Excellent Silver-plated Teaspoons, and Farm and Fireside One Year, Only 75 Cents.
These spoons are made of solid nickel-silver metal all the way through, and then heavily plated with coin-silver. They can be used in cooking, eating, medicines and acids the same as solid silver spoons. These spoons will not, cannot turn brassy, will not corrode or rust, and are so hard they won't bend. Spoons of equal merit are sold in the average jewelry-store for about \$1.50 a set. In beauty and finish they are as fine as solid coin-silver spoons costing \$6.00 a set. For daily use, year after year, nothing (except solid coin-silver) excels these spoons. They are silver color through and through, and will last a lifetime. They are Guaranteed to be as described, and to give SATISFACTION, or MONEY REFUNDED.
INITIAL LETTER Each and every spoon will be engraved free of charge with ONE initial letter in Old English. Say what initial you want.
WILL STAND ANY TEST
To test the spoons, use a file. If not found as represented, we will refund your 75 cents and make you a present of the subscription. If returned to us we will replace, free of charge, the spoon damaged in making the test, provided you agree to tell some of your neighbors about the test and what it proved. Address
FARM AND FIRESIDE, Springfield, Ohio.
Postage paid by us in each case.

Queries.

READ THIS NOTICE.

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge.

Weed-spud.—L. W. S., Milan, Ohio, writes: "In reply to a query in the July 1st number, how to get rid of large patches of burdock and soundock, you say mow them off, and then plow, etc. Now, the greatest trouble with burdock is that it grows under fences, hedges, etc., where it is impossible to plow.

Sunflower Culture.—S. M. L., Burlington, Kan., writes: "How is sunflower-seed raised for the market? What is the average yield of an acre and what is the average price for a bushel? Is it threshed like wheat? Is there always a market for it?"

Sticky Fly-paper.—L. J. C., Hastings, Neb. Mix equal parts, by measure, of melted resin and castor-oil. Stir thoroughly one minute. While yet warm spread thinly and evenly on any strong paper that is not too porous.

Horse-sorel.—A. P., Newton, Ill. The best way to get rid of horse-sorel is to plow the land, plant it in corn, potatoes or such crops, and thoroughly cultivate. Then, after a crop of small grain like wheat, seed down to clover. A heavy crop of clover will smother such weeds as sorel.

Alfalfa.—J. H. B., Powell Siding, Mo. The time for sowing alfalfa is in the spring. You can get seed from any large seed firm. The price varies with supply and demand.

Bitter Milk.—C. S., Jeffersontown, Ky. "Bitter milk" may have various causes. Probably the most frequent one consists in feeding spoiled and unsuitable food.

Period of Gestation.—S. F., Coloma, Wis. In cows the length of the period of gestation, rare extremes excluded, varies from eight to eleven months, or from 240 to 330 days, while the average time may be set down as 280 to 285 days.

Period of Gestation.—S. F., Coloma, Wis. In cows the length of the period of gestation, rare extremes excluded, varies from eight to eleven months, or from 240 to 330 days, while the average time may be set down as 280 to 285 days.

Period of Gestation.—S. F., Coloma, Wis. In cows the length of the period of gestation, rare extremes excluded, varies from eight to eleven months, or from 240 to 330 days, while the average time may be set down as 280 to 285 days.

Period of Gestation.—S. F., Coloma, Wis. In cows the length of the period of gestation, rare extremes excluded, varies from eight to eleven months, or from 240 to 330 days, while the average time may be set down as 280 to 285 days.

Tetanus—Gnats.—J. E. B., Wanamaker, Miss. It is not known that an attack of tetanus, terminating in recovery, in any way increases the existing predisposition; on the contrary, it is supposed that such an attack has the effect of diminishing the same, and of thus affording, if not absolute immunity, at least greater security against future attacks.

Vitiated Appetite.—F. M., M. Upton, N. Y. Such a vitiated appetite as is shown by your cow, which, you say, chews bones and sticks, results from food lacking necessary constituents; that is, constituents necessary for the animal organism. The principal ones are nitrogenous compounds, phosphates and lime salts.

A Hard Lump (?).—R. J. P., McCutchanville, Ind. You say your cow has a hard "lump" of the size of a walnut on her jaw below the ear, which lump is movable, does not seem to be attached to the bone, is painless, does not show any signs of breaking down, and does not incommode the cow.

Bruised Withers.—J. A. C., Red Oak, I. T. If the hard swellings on both sides of the withers of your horse do not show any sign of abscess formation and not any softer spot, it may be possible to prevent the formation of fistulae, provided, you either exempt the horse from work or use a harness, a breast-collar for instance, that does not come in contact with the swelling, for then it may be expected that the latter will gradually become reduced in size, and finally, perhaps, disappear.

Looks Like Anthrax.—T. S., Grand Bay, Ala. The condition of the lungs, but particularly the morbid changes in the blood, which you describe as black, tar-like and without any coagulations and, to a certain extent, also some of the symptoms observed during life, especially if supported by other evidence, or occurring in an epizootic and fatal disease, are characteristic of anthrax.

Looks Like Anthrax.—T. S., Grand Bay, Ala. The condition of the lungs, but particularly the morbid changes in the blood, which you describe as black, tar-like and without any coagulations and, to a certain extent, also some of the symptoms observed during life, especially if supported by other evidence, or occurring in an epizootic and fatal disease, are characteristic of anthrax.

The Nickel Plate Road sells Homeseekers Excursion tickets at extremely low rates, August 17th. Ask agents.

SAVE LABOR SCIENTIFIC CORN HARVESTER. Those side wings are hinged SAFETY SHAFTS. ADJUSTABLE SAFETY SEATS. It meets every requirement of a machine corn cutter at a price that places it within easy reach of every farmer.

DRINK PURE WATER. By using the Bucket Pump and Water Purifier on Wells and Cisterns. Will Purify a Pail Well or Cistern in Ten Days' use, or Money Refunded.

\$20.00 PER 1,000 for Canceled Stamps. Children coin money working for us. Send 10c. silver for circular. Novelty Collector, Box 4, Havilla, Va.

MENTION THIS PAPER WHEN ANSWERING ADVERTISEMENTS.

AGENTS make 100 to 300 per cent; big sale on its merit; used on every horse; exclusive territory. C. HUNTER CO., Racine, Wis. \$50.00 PER 1,000 we pay to tack up signs. Name and addresses of 700 other for 50 cents. NOVELTY COLLECTOR, HAVILLA, VA.

WANTED—CRAYON ARTISTS and all beginners on Solar Prints who want work. Write Eugene Pearl, Artist, 23 N. Union Square, New York, for Art Brochure, sent free. Tells how to make \$10 to \$30 weekly at home. One agent wanted in every town.

OUTING PIN FOR 5 CENTS. This is a triple sterling silver plated ladies' stick pin, full two inches long, in two brilliant colors, hard enamel. It has a swinging bangle, on which is a lady and bicycle, with the word OUTING. The ladies' dress is blue, with red leggings, the bicycle is red, and the word OUTING in vivid blue.

The secret of success in the agency business is to have something that people really want, and then to sell it low enough for all to buy. Hence the happy results our agents continually report who are engaged in taking orders for "Peerless Atlas of the World" and "New American Cook Book."

\$1.60 WORTH OF SHEET MUSIC for 10c. That is, Any 4 Pieces of the Sheet Music Listed Below Will Be Sent to Any Address upon Receipt of 10 Cents in Silver or Stamps. WE have made arrangements with one of the largest music-houses of Boston to furnish our readers with full-size, complete and unabridged Sheet Music at 3 cents a copy.

HOW TO BE BEAUTIFUL

Shirley Dare's book, "The Arts of Beauty," teaches how to be beautiful. It should be read by every girl and woman, especially by every mother who is raising daughters. It has been highly indorsed by eminent physicians throughout the country. It teaches not only what to do, but what not to do. It points out the harmful practices and evil drugs which are innocently used by many. It prescribes only such remedies and methods as are perfectly safe.

FOR 30 CENTS

We will send this book, and either the Woman's Home Companion or the Farm and Fireside for the remainder of this year, for thirty cents.

Or the book will be given as a premium for sending a club of two trial subscribers who accept the above offer.

The Arts of Beauty

BY SHIRLEY DARE

Shirley Dare is the most popular and practical writer in this country on cosmetics, health and the arts of the toilet. She has made the subject her life-work, having studied under the best masters in America and Europe. What she says in "The Arts of Beauty" regarding the care of the complexion, hair, body and health in general may be relied upon as authority. She is a bitter foe of anything false or injurious. Her contributions are eagerly bought at high prices by editors of papers, and her name and fame are almost universal among the women of America. Because we know that most of our readers are anxious to own her new and only book, "The Arts of Beauty," we are pleased that we can now furnish it at a remarkably low price. See offer above.

Invaluable in the Home

OF EVERY WOMAN

Premium No. 63.



The Author's Rare Gifts

AS SEEN BY OTHERS

No contributor we have ever had has attracted as much attention from our women readers as Shirley Dare. She seems to know just what women want to read about, and has always proved thoroughly reliable.—M. N. Mix, editor of the Pittsburg Dispatch.

I know of no writer on subjects of special interest to women who has secured such great popularity as Shirley Dare. In certain provinces of woman's kingdom, which I shall not venture to enumerate, she is an authority.—C. H. Jones, editor of the New York World.

Shirley Dare is the most popular writer for and about women I have known in fifteen years' experience of women contributors to newspapers. A great physician in Philadelphia—perhaps the most famous practitioner of that city—told me that no writer within his knowledge gave so much really useful, sound information to women as Shirley Dare.—W. B. Merrill, managing editor of the New York Press.

A BRIEF OUTLINE OF THE CONTENTS OF THE BOOK

- I.—GIFTS OF CHARMING. Studies in Graces and Good Looks—Making Grace of Defects—Charm is Rarer than Beauty—Things to Avoid—To be Charming and Delightful, Beauty is Not Necessary.
- II.—THE SECRETS OF GOOD LOOKS. Why Women Fade so Early—How and When to Bathe for Fatigue—Thoughts for Indolent Girls—Toning the System.
- III.—GRACE AND EXPRESSION. True Beauty More than Skin Deep—The Beauty Every One May Have—Simple Methods of Developing the Figure—To Gain a Good Complexion.
- IV.—BLOOM AND FAIRNESS. Overdoing Massage—Physical Training at Home—How to be Fair and Fine.
- V.—HAIR, THE CROWNING GLORY. Care of the Hair and Scalp—Regarding Baldness and Thin Partings—To Keep the Hair from Falling—Secret of Bright Locks—Things that Injure the Hair—Stimulating Tinctures and Washes—Results of Neglect—Proper Care of the Scalp.
- VI.—TRAINING FOR A FINE FIGURE. How to Reduce Stoutness—To Secure Rounded Slenderness—To Promote Suppleness—Training the Young—Some Cardinal Rules for Delicate Girls.
- VII.—WOMEN BRED FOR BEAUTY. With a Few Remarks upon the Use of Mallow Paste and Powder—Secrets of a Lady's-maid—How a Duchess May "Make Up" Her Face for the Day—From Corset to Coronet—Lovely English Complexions.
- VIII.—THE CULTURE OF BEAUTY. Facial Massage—A Skin in Good Condition—Developing the Figure—Arts of Beauty Overdone—Preserving the Natural Beauty of the Skin.
- IX.—TOILET ELEGANCIES. Things to Refreshen and Brighten—Beauty Baths and Tinctures—Bathing Conveniences and Luxuries—Formulas for Fragrant and Restful Baths—Pleasing Lotions, Powders and Perfumes.
- X.—MANICURING.
- XI.—COSMETICS AND LOTIONS. What to Avoid Using—Pleasant Scents and Dainty Preparations for the Skin—Spring Medicines—Fragrant Powders—Some Pastes which Soften and Brighten.
- XII.—THINGS INQUIRED FOR. Toilet Soaps—Medicinal Baths—The Treatment of Superfluous Hair—Relieving Skin Tortures—To Sweeten the Breath—For Lines in the Face—Tooth Washes—For Sallow, Deadened Complexions.
- XIII.—DEFECTS AND ANNOYANCES. How to Cure a Red Nose—Sallowness—Fine Wrinkles and Their Specifics—Eruptions—Freckles and Moth Patches—Facial Blemishes—Red Eyes and Inflamed Faces—For Coarse Skins.
- XV.—HEALTH AND DRESS. Health-keeping Underwear—Corsets and Common Sense—Some Foot Comforts—Dressing for the Sick-room—Comfortable, Healthy Dressing.
- XVI.—LOVABLE FACES. How to Have Faces as Smooth as Velvet—Curing Spotted, Oily Skins—To Refine the Pores and Remove Blackheads—Cure for Flushed Faces—Colorless Complexions—Softening and Clearing the Skin—After Exposure to Sun and Rough Winds.
- XVII.—ON PERFUMES.
- XVIII.—SANITARY IMPROVEMENTS.
- XIX.—DIET FOR BEAUTY AND HEALTH. Food for Clear Skins—Errors in Eating—The Diets of Stoutness and Thinness—For Impoverished Blood and Wasting Strength—Children's Foods—Emulsions and Extracts—For Those Dyspeptic—Wholesome Drinks—Feeding for Rich Blood—The Proper Nourishments—Concerning Cereals—Foods for Clear Skins and Bright Eyes—Aids to the Digestion—The Mineral Waters for Various Troubles—Headaches, Causes and Cures.

"The Arts of Beauty" has heretofore been sold entirely by agents, and never for less than a dollar and a half a copy. We purchased the right to print an edition of this splendid book, and in order to procure thousands of trial subscribers, we offer it at the marvelously low price named above. This premium edition is exactly like the agents' edition in every particular except that it is not expensively bound. It contains every word found in the agents' edition, which sells for \$1.50 a copy. It has 256 pages. Satisfaction guaranteed or money refunded.

This book will be given free as a premium for a club of two subscribers to either paper.

(The subscribers may accept any of our premium offers in this issue, and may enter the word contest, which closes August 31st. See page 19.)

Postage paid by us in each case.

Address MAST, CROWELL & KIRKPATRICK, Springfield, Ohio.
Publishers of the FARM AND FIRESIDE and the WOMAN'S HOME COMPANION

MIDSUMMER CONTEST

GLOSES AUGUST 31st.

GLOSES AUGUST 31st.

One \$100 Bicycle and \$100 in Cash

We offer six valuable prizes for the largest number of words which can be spelled with the letters in the word "Beautiful." To enter the contest an order for a subscription must come with the list of words. Any of the offers in this or previous issues may be accepted. (See page 16.)

First Prize,	For the largest list of words sent us,	One Bicycle (ladies' or gents'),	\$100.00
Second Prize,	For the second largest list,	Cash,	30.00
Third Prize,	For the third largest list,	Cash,	25.00
Fourth Prize,	For the fourth largest list,	Cash,	20.00
Fifth Prize,	For the fifth largest list,	Cash,	15.00
Sixth Prize,	For the sixth largest list,	Cash,	10.00
Total value of prizes,			\$200.00

CONDITIONS GOVERNING THE CONTEST.

Words *must* be written alphabetically, on but *one side* of ruled paper, and numbered, beginning with 1.
 Words spelled alike, but having different meanings, can be used only once. Variants will not be allowed; that is, use but one form of spelling a word.
 Words (except those found in dictionaries in general use) formed with prefixes and suffixes will not be allowed.
 Use no word commencing with a capital letter; as, proper nouns, adjectives derived from proper nouns, geographical names, etc.
 Do not use obsolete, foreign and compound words, or abbreviations.
 Other words—common nouns, adjectives, verbs, adverbs, pronouns, particles, prepositions, conjunctions and interjections—allowed. Plurals allowed.

Each letter may be used as desired, but not more times than it appears in the word "Beautiful." Work it out as follows: able, aft, all, at, ate, bail, bait, bale, be, beat, beautiful, bet, bile, bit, bite, blue, but, etc., etc. These words may be used. Any dictionary in common use may be consulted.
 The list of words must be written on separate paper from the subscription letter and signed with the contestant's name and address.
 The paper may be ordered sent to one address and the premium to another.
 In case of a tie, the sender of the largest list of words *first* received by us will get the *first* prize, and the sender of the largest list next received by us will get the second prize, and so on. Persons living in Springfield, Ohio, and Clark county, Ohio, will not be allowed to enter the contest.

Your list of words must be sent us during the month of August. The list will not be large, and can easily be made out. After the prize-winners are announced many will say, "Why, I could have made up that many words." Why not do it, and get a prize?



Premium No. 17.

THE STANDARD COOK BOOK

For American Homes.

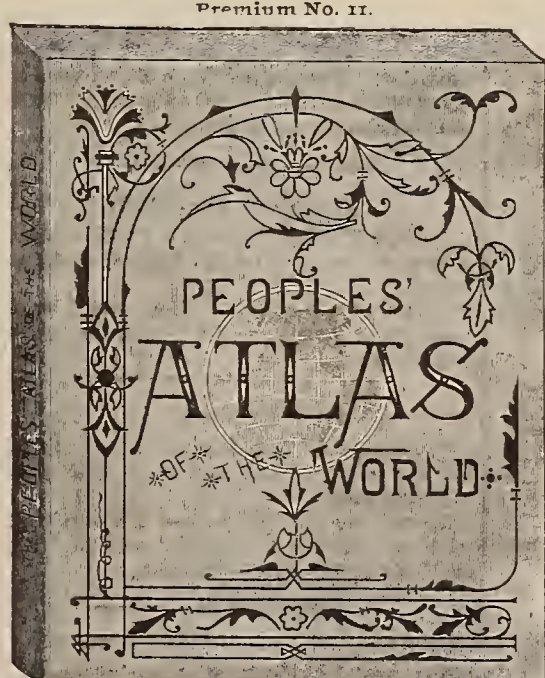
320 Pages, 1,200 Recipes, 186 Illustrations.

WHAT TO COOK and HOW TO COOK IT.

Savory. Delicious. Palatable.

People's Atlas

Contains 124 pages (each page is 11 inches wide and 14 inches long) and over 200 large illustrations and maps. It should be in every home and school-room.



IT IS ACCURATE.
 IT IS AUTHENTIC.
 IT IS COMPLETE.
 IT IS EDUCATIONAL.
 IT IS EXHAUSTIVE.
 IT IS CHEAP.

IT GIVES THE POPULATION
 Of Each State and Territory,
 Of All Counties of the United States,
 Of American Cities with Over 5,000 Inhabitants
 BY THE LAST U. S. CENSUS.

Excellent Maps.
 The excellent maps of all the states and territories in the Union are large, full-page, and a number of *double-page maps* to represent the most important states of our country. All countries on the face of the earth are shown. Rivers and lakes are accurately located. All the large cities of the world, the important towns and most of the villages of the United States are given on the maps.

Miniature Cut of Atlas. Actual Size, Open, 14 by 22 Inches; Closed, 14 by 11 Inches.
 It gives a classified list of all nations, with forms of government, geographical location, size and population.

There are Special Features Relating to Each State, and to the United States. A General Description of the World, with illustrations embellishing nearly every page. It is Superior to any School Geography.

AN UP-TO-DATE ATLAS FOR UP-TO-DATE PEOPLE.
 THOUSANDS IN VALUE FOR ALMOST NOTHING

It required years to gather the material for this Atlas. Over \$25,000.00 were expended for the engraving of maps and illustrations, for editorial labor, for type-setting and electro-plates, etc., before a single Atlas was printed. Had we printed only a few thousand, they would cost \$5.00 to \$10.00 apiece.

People's Atlas, and This Paper for the Remainder of This Year, 35 Cents.
 People's Atlas given free as a premium for a club of FOUR subscribers to Farm and Fireside. Subscribers may accept any of our premium offers in this issue.

Meets the Wants of American Homes Better Than Any Other Cook Book.

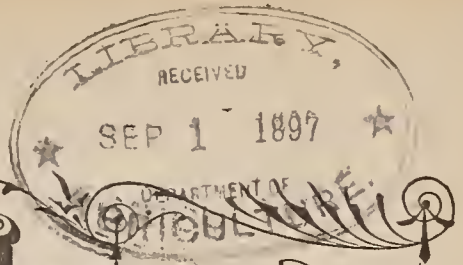
The STANDARD Cook Book was gotten up especially for use in homes where the wife and mother does her own housework. The 1,200 recipes are the choicest selections from 20,000 received from almost as many ladies living in all parts of America. No more exchanging recipes with your neighbor, or copying them on a piece of paper to be lost, for all the best are in the Standard Cook Book.
 It is 7 1/2 inches long, 5 1/4 inches wide, and contains 320 pages. It is printed in large type and bound in a beautifully-illuminated cover, in several colors.

NEW RECIPES. NEW IDEAS. NEW SUGGESTIONS

Suggestions and Recipes for Soups, Fish, Poultry, Game, Meats, Salads, Sauces, Catsups and Relishes, Breakfast and Tea Dishes, Vegetables, Bread, Biscuit, Pies, Puddings, Cakes, Custards, Desserts, Cookies, Fritters, etc.; also for Preserves, Candies and Beverages, Cookery for the Sick, Bills of Fare for Family Dinners, Holiday Dinners, etc.; a Table of Weights and Measures, Chapters on the Various Departments of Household Management and Work, and various other points of daily interest to every good housekeeper.

Standard Cook Book, and Farm and Fireside for the Remainder of This Year, 30 Cents.
 This Cook Book given free as a premium for a club of TWO subscribers to Farm and Fireside. Subscribers may accept any of our premium offers in this issue.

Address FARM AND FIRESIDE, Springfield, Ohio.



WESTERN EDITION.

Entered at the Post-office at Springfield, Ohio, as second-class mail matter.

VOL. XX. NO. 23.

SEPTEMBER 1, 1897.

TERMS { 60 CENTS A YEAR. 24 NUMBERS.

Average circulation for the past six months

310,482 COPIES..... EACH... ISSUE

AS FOLLOWS

- 125,157 Copies of the Eastern Edition.
125,157 Copies of the Western Edition.
30,084 Copies of the New York Edition
30,084 Copies of the Illinois Edition.

With more than 1,500,000 regular readers.

FARM AND FIRESIDE

Holds the undisputed title of

MONARCH OF THE WORLD'S RURAL PRESS.

SEMI-MONTHLIES

In all America no semi-monthly has credit for one half so large a circulation as is accorded to the Springfield, Ohio, FARM AND FIRESIDE, and the publishers of the American Newspaper Directory will guarantee the accuracy of the circulation rating accorded to this paper by a reward of one hundred dollars, payable to the first person who successfully assails it.—From Printers' Ink, May 6, 1896.

WITH THE VANGUARD

In the Yearbook of the United States Department of Agriculture for 1896, now being distributed, is an important paper on the superior value of large, heavy seed. The experiments with heavy and light seed of various grains and vegetables on which this paper is based demonstrated very strikingly the superiority of the plump, sound, heavy seed. The plant and root development of the young seedlings from heavy seeds was larger, more uniform and better in every way than from light seeds.

The timely application of the lesson from these investigations is the careful and intelligent selection of seed-wheat. The bountiful crop of wheat this year now going to market at prices much higher than was expected at seeding-time will undoubtedly encourage a larger sowing this fall. But the prudent wheat-grower will consider that our competitors in growing wheat for export, Russia and Argentine, will be encouraged likewise, and may have large crops next year, with resulting lower prices.

largest and heaviest grains may be selected by careful re-cleaning on a good fanning-mill. With a little care in adjustment and operation all the light and small grains can be blown or screened out, leaving only the best for seed.

It is safe to say that the yield of wheat can be considerably and profitably increased by this simple method of seed selection. The yield of every field of wheat is the aggregate of all the single plants in that field; the yield of every plant affects the total. No plant nor seed is too insignificant to be considered.

In the August number of the "North American Review," that eminent statistician, Michael G. Mulhall, has an instructive article on the progress of the "Prairie States." Grouped under this head are Ohio, Illinois, Indiana, Missouri, Michigan, Wisconsin, Iowa, Minnesota, Kansas, Nebraska and the two Dakotas.

"In forty years," says Mr. Mulhall, "the improved area under farms showed an advance of 157,000,000 acres, equal to 13,000 acres daily. In other words, the new farms laid down and improved between 1850 and 1890 exceeded the total superficial area of the German Empire, Holland, Belgium and Denmark collectively.

"Compare the production of grain and meat (averages of years 1893-94-95) and the number of agricultural hands with the figures for the other states and certain European countries:

Table with 5 columns: Region, Hands Employed, Grain (Tons), Meat (Tons), Per Hand (Grain Bu., Meat Lbs.). Rows include Prairie States, Other States, Union, United Kingdom, France, and Germany.

"One hand in the Prairie States raises as much food as five can do in the most advanced countries of Europe, and this is evidently due in a great measure to the use of improved agricultural machinery, for it is a strange fact that the reaping-hook is still seen in parts of England, France and Germany.

"Such has been the industry of the western farmers that their wealth has increased ninefold in forty years, the value of farms in the twelve Prairie States in 1890 being equal to the agricultural wealth of the Austrian Empire. . . . Less than half a century has sufficed for a comparatively small number of farmers to convert the western prairies into one of the most productive regions of the globe, and to create and build up as flourishing a community as can be found to-day in either of the hemispheres.

THE return of prosperity is a cheerful topic. The most conservative trade journals speak in glowing terms of the great revival of business. In nearly every branch there has been a great improvement. Under the date of August 14th "Bradstreet's" says, in part: "Evidences of widespread revival in demand for merchandise and other products have become so numerous as to compel general recognition.

"A buoyancy of feeling has appeared among buyers and sellers at New York, Baltimore, Chicago, St. Louis and Kansas City, where interior merchants have thronged this week, the like of which has not been seen for several years. Interior merchants are buying dry-goods, clothing, shoes, groceries and fancy articles far more freely than at any time since 1892.

"A nominal advance of seventy-five cents a ton for steel billets is more than a feature, as it means the confidence of makers in an early revival of the demand for iron and steel which has been so long delayed. Wheat scores an advance of seven cents on continued heavy exports and a tendency to decrease estimates of the size of the domestic crop.

"Exports of wheat (flour included as wheat) from both coasts of the United States and from Montreal this week aggregate 4,460,519 bushels, an increase over last week of more than 1,100,000 bushels, and compared with shipments in the week a year ago of 2,635,000 bushels, 1,824,000 in 1895, of 2,979,000 bushels in 1894, and of 6,129,000 bushels in 1893.

FARM AND FIRESIDE

MAST, CROWELL & KIRKPATRICK.

OFFICES: 108 Times Building, New York City. Springfield, Ohio. 1643 Monadnock Block, Chicago, Illinois.

Subscriptions and all business letters may be addressed to "FARM AND FIRESIDE," at either one of the above-mentioned offices; letters for the Editor should be marked EDITOR.

TERMS OF SUBSCRIPTION:

One Year - (24 Numbers) - 50 Cents. Six Months - (12 Numbers) - 30 Cents.

The above rates include the payment of postage by us. All subscriptions commence with the issue on press when order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and family journals are issued.

Payment, when sent by mail, should be made in Express or Post-office Money-orders, Bank Checks or Drafts. WHEN NEITHER OF THESE CAN BE PROCURED, send the money in a registered letter.

Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelop and get lost.

Postage-stamps will be received in payment for subscriptions in sums less than one dollar, if for every 25 cents in stamps you add one-cent stamp extra, because we must sell postage-stamps at a loss.

The date on the "yellow label" shows the time to which each subscriber has paid. Thus: 1Jan98, means that the subscription is paid up to January 1, 1898; 15Feb98, to February 15, 1898, and so on.

When money is received, the date will be changed within four weeks, which will answer for a receipt.

When renewing your subscription, do not fail to say it is a renewal. If all our subscribers will do this, a great deal of trouble will be avoided.

The Advertisers in This Paper.

We believe that all the advertisements in this paper are from reliable firms or business men, and do not intentionally or knowingly insert advertisements from any but reliable parties; if subscribers find any of them to be otherwise we should be glad to know it.

NOTES ON RURAL AFFAIRS.

Cultivation for Fertility. In an earlier issue I mentioned Professor Roberts' new hook on the "fertility of the soil."

Professor I. P. Roberts—says he, Punch up the soil for its fertillitee. Down in the earth There is no dearth Of good plant-food that will come to you free.

Now, while I agree with every word of this, I would like to ask how it applies to a season such as we have just gone through? Professor Roberts—and this ordinarily with good reason—suggests that for the sake of "punching up the soil for its fertility" (as the Rural poet expresses it) we should cultivate the potato-patches not less than six times.

of July. The question in my mind now is whether this overabundance of water, by dissolving the plant-food in the soil, supplies the same amount of fertility to the growing crops that we could expect from frequent stirring of the soil.

After the Rain. But the tug of war is yet to come. The weeds have had a good chance to start and develop. We could not help it. We may not be able to do anything any more in corn and potato fields, except that if there are any large weeds which we wish to get rid of, we must pull them up by hand.

My indefatigable friend Professor L. H. Bailey, of Cornell University, has written another book, and as usual a very good and useful one. All progressive fruit-growers will welcome it, and use it as a guide in the management of their orchards and small-fruit patches.

Overproduction of Fruit. Professor Bailey says on this subject: "The probability is that there is not an absolute overproduction except in special years; that is, that there is not more fruit grown than can be consumed in one way or another.

dissemination, but it is too much to hope for a perfectly equal distribution of fruits, since the fruit areas are more or less limited in their geographical distribution, whilst the fruit-consuming population is distributed far and wide.

"There can be little doubt that fruit must tend to become cheaper rather than higher, except for special kinds and special markets, but the cost of producing it will grow less at the same time. The fruit-grower must acquire the skill to make his plantations bear in the years of least heavy crops, and thereby escape to a large extent the effects of overproduction.

There is nothing really and entirely new in these remarks of Professor Bailey, and yet they state the case plainly and comprehensively. I find a great many good things in the latest work from the professor's pen, and no doubt I shall refer to some of them later on.

T. GREINER.

SALIENT FARM NOTES.

In a recent trip of seventy or eighty miles I saw hundreds of pastures dark with ragweed. This is a pest that demands attention. It should not be allowed to rob the land of fertility and choke out the grass.

Don't sow wheat this season unless you have the ground in first-class condition. Wheat is a good price, and it is foolishness to throw it away by sowing it on half-prepared ground.

Thousands of those who will be obliged to buy seed this fall will, for probably the first time in their lives, take into serious consideration the quantity of seed absolutely required to properly seed an acre.

The rate of seeding is largely a question of soil. On rich soils wheat tillers very much more than on soils deficient in available plant-food. If your soil is rich—if it contains large quantities of plant-food that is available now, three pecks of sound, plump seed will give better results than more.

This rate of seeding is a matter every farmer will have to decide for himself. One living at a distance can only advise in a general way. We can say that fertile soils yield good crops from a light seeding, while thin soils yield full crops only when the seeding is heavy.

As the wheat crop in this locality is a complete failure, most of the land was planted to corn. Now many farmers are debating the question, Shall we sow among the standing corn, or wait a few weeks longer and cut the corn off before sowing? I have for many years been of the opinion that sowing wheat among corn or on the land after the corn has been cut off is like investing in a one-to-twenty-chance lottery.

Another question asked is, Where shall we buy seed? Where can good, sound seed be obtained? Some of the most enterprising grain dealers are bestirring themselves in this matter and securing supplies for their customers from localities where good crops were grown.

FRED GRUNDY.

Our Household.

SEVEN AGES OF MAN.

At first the mewling infant,
In a baby-carriage neat,
That is trundled by a nurse-girl
As she flirts along the street.

And then the whining school-boy
Who is full of won'ts and can'ts,
And therefore wears a sheepskin
And seven pairs of pants.

And then the mournful lover,
Who is always short of brains,
And comes to serenade her,
And gets floured for his pains.

Next comes the gallant soldier,
And I hasten to remind him
There are other tunes to whistle
Than the girl he left behind him.

And then the Justice, humming
Nature's done so much for me,
That I sign myself "yours truly,"
With a very large J. P.

To the lean and slippered pantaloon
The sixth age swiftly flies,
And the family grieves to hear him
Tell the most infernal lies

About the men he killed in battle,
And the weather he passed through,
Of hot summers and cold winters,
And the b'ars and deer he slew.

Drop the curtain to slow music
On the final episode,
If I didn't nurse George Washington
I hope I may be blowed!

HOME TOPICS.

APPLE SAUCE.—Just the very best apple sauce is made by steaming the apples. Prepare the apples the same as for stewing, put them into the steamer and let them steam until soft; then mash them, and beat until fine and smooth. Sweeten to taste, and you will say it is far superior to stewed apples. I always use my wire potato-masher with which to mash and beat the apple sauce.

CITRON AND QUINCE PRESERVES.—The flavor of quinces is so strong that preserves made half citron are of delicious flavor. Pare and cut the citron into pieces about the size of the quince pieces; boil them in weak salt-water about thirty minutes, then drain them; put on fresh water, and boil them until a broom-splint will pierce them. Pare the quinces, cut them into halves and take out the cores; boil them in clear water until they begin to be tender. Skim them out, and add to the water three fourths of a pound of white sugar to every pound of fruit. As soon as the syrup has boiled and been skimmed, put in the quince and citron in alternate layers. Let the fruit boil in the syrup until the pieces look clear, then skim it out and put it into jars, filling them three fourths full. Let the juice boil until it drops "long" from the spoon, then fill up the jars with it and seal.

NIGHT-CLOTHES.—Every one should have garments made expressly for night wear, and on retiring remove every article worn during the day. If wool is agreeable, it is the best material for night-clothes, but there are many people who cannot wear wool next to the body. The next best material is outing-cloth. The soft downy surface of this cloth is pleasant



to feel, and nightgowns made of it are warmer than muslin. A short wool sack to be worn over the nightgown is useful for children who are apt to throw their arms out of bed, and also for nursing mothers. A very good nightgown for little children who will not keep the

clothes over them is made like the one illustrated. It is cut like any other nightgown, large and roomy; but the back is cut ten inches longer than the front, and fastened up on the front with buttons and buttonholes. With this gown on the child can kick all it wishes to, but the little feet and legs will remain covered.

MAIDA McL.

CAPES.

The cool days of early fall should not catch you without some kind of a shoulder wrap of warmth. A very pretty cape for an elderly lady is combined of heavy black satin, moire or dull black silk, or drap-d'ete. This can be trimmed to suit the wearer's taste, with lace and passementerie. For ordinary wear one of rough cloth lined with silk is very serviceable.

For a young girl or little child a lightweight cloth, lined with silk and interlined with Canton flannel, makes a comfortable early fall wrap.

HOUSE JACKETS.

No one who has used these comfortable articles of dress would be without one or two of them in her wardrobe. For early fall wear with some of the summer skirts the most attractive are of bright cashmeres, red or pale blue. Trimmed elab-

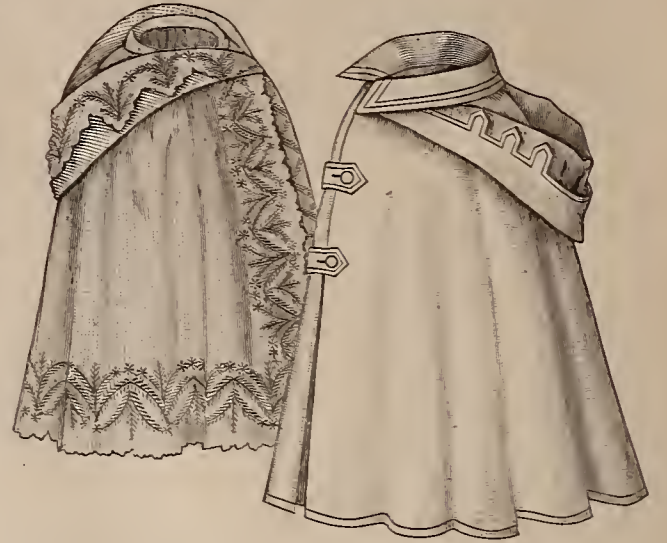
earthly sphere than that of home-making, homekeeping and housekeeping?

To be sure there are circumstances that make housekeeping an impossibility in many instances. But there are discontented wives and mothers where there seems so little, or perhaps no cause whatever for the restlessness. Servants are given possession of the homes while the rightful mistresses thereof are seeking the applause and notice of the world, and are engaged in the public services before them, and homes—their own royalties and principalities—are of but a secondary consideration at the most. It is all these things that have given rise to the many disparaging things said of women who rebel at housekeeping, until women as a class are coming to be looked upon as a discontented element, and they are accused of bitterly complaining at the situation that keeps them housewives and mothers.

But we know of women, too, whose ambitions are bounded by the home and

one who cultivates this one of the virtues adds to her happiness every day.

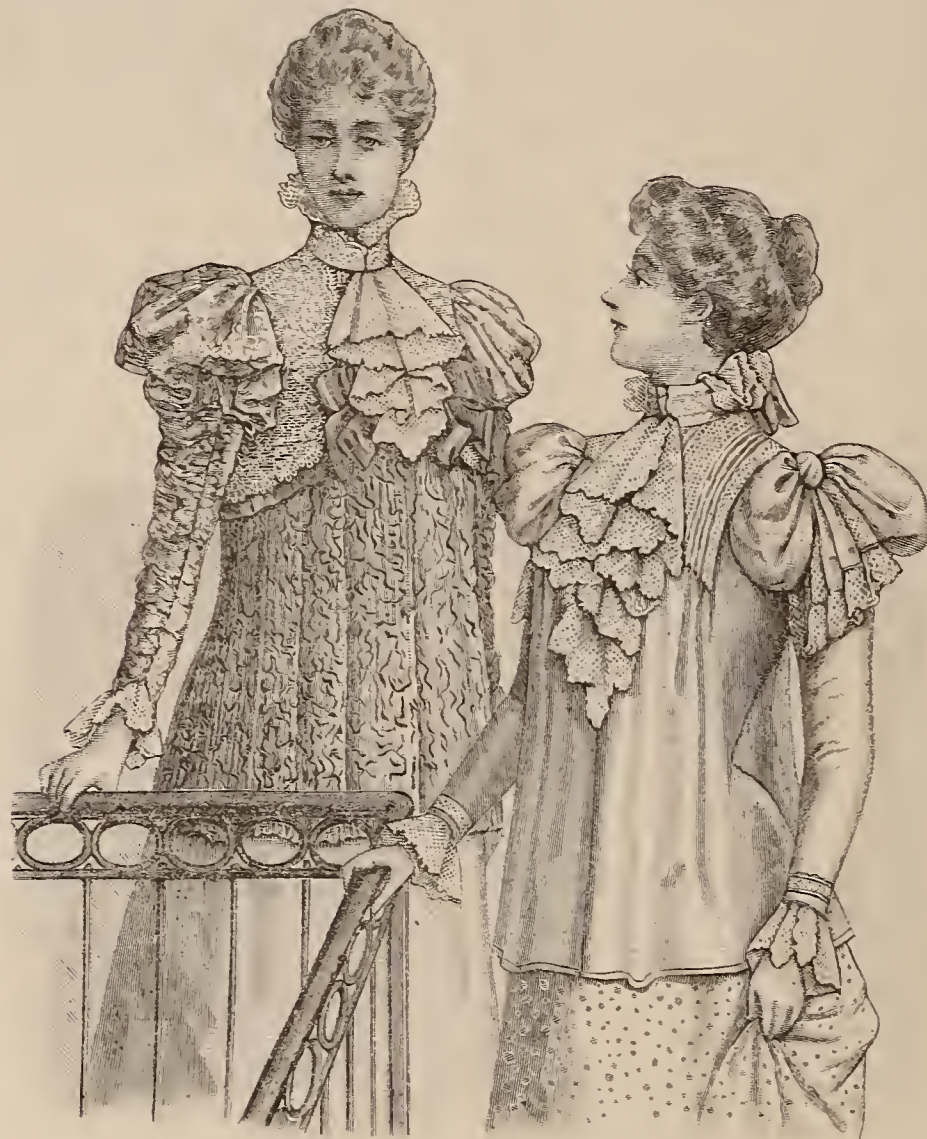
Housework is in many ways hard and monotonous, and there are duties that are exacting and tedious. But there are any



number of pleasant features connected with it also; and performed as a labor of love, it is glorified and beautified in the doing. Neither is it more laborious, exacting or monotonous than the work of husbands that they must do over and over again with much exactness and worry and fret for the support of their households. But we believe love makes their burdens lighter and their work to assume a phase that is much less monotonous than it could be if done continually under an internal protest, and under a feeling of slavish environment and bondage. Love makes all tasks and situations lighter and pleasanter. Or if it does not, it is the one pitifully lacking element that could be made to transform the home of discontent into one of happy content.

One writer asserts that the only unanswerable excuse for woman's entrance into active public life of any kind is need. She further claims that this need is constantly growing greater as marriages become continually more rare, and that this state of affairs is to be traced to the taking of positions from men by discontented women who would not be satisfied with home-keeping, but must be accepted as wage-earners out in the world of business.

This writer has left us in somewhat a maze of wonderment concerning all this. We recognize the widespread discontent among women confined to housework and the general work of the average housewife, and we wonder that women who have perfect health can be content to place the reins of kitchen and general household government into incompetent hands, while they turn their hands to painting and embroidery, or give them up to listless idleness. For to me housekeeping is the embodiment of pleasant undertakings, and the home vastly more inviting than the business world, that leads or takes one out from home, and there can be no more graceful or beneficent presider than the presiding queen of the household realm. It is at home that a woman should be at her best, and usually is. We believe her more often content to remain there than at present conceded by many who take up the pen against woman and her frailties, though ready to admit that among housewives there are many who look upon housework with disdain and a feeling of



orately with the lace and ribbon they demand to give them a dressy appearance, and to keep them from looking too much like a negligee garment, they can be worn all times of the day.

A plainer one for breakfast wear can be fashioned of tennis-flannel, and give the wearer a very attractive look early in the day. Some use wash-silks and have the front accordion-plaited. A fitted lining is always best for the back, unless the entire sack is loose.

DISCONTENTED HOUSEWIVES.

It is said that with women of the present day housekeeping is fast falling into disrepute, and to too great an extent disappearing among the lost arts of civilization. Such admission as this we are not ready to concede, though we do know that among many housewives there is a very great tendency to discontent with their lot, and a feeling of being obliged to endure a succession of environments that preclude the possibility of reaching out into the imagined "higher sphere" for which they have come, or are coming to believe themselves fitted. But can there be a higher

the home inmates. Their homes are pleasant places to enter, and these women are pleasant associates and companions. The outside world reaches them only through the press, and one hears no wail of discontent, but of many things that show the ambition and zeal of the presiding genius enthroned as "household queen."

Woman's ambition to take her place in the world of business and finance is worthy and right, but to throw down the reins of domesticity and neglect the home, when she has essayed to take her place as wife and housewife and companion to the man of her choice, it is wrong to let discontent usurp the place of the happiness and perfect content she felt when beginning her new life as helpmate. There is neither gain nor happiness in it; and it is not only herself that must suffer the consequences of her restlessness, but the entire household.

Discontent is a vice that is more than six thousand years old, we are told. And there is no hope but that will be known at the end of time. It is a part of innate human nature. But content can be cultivated and fostered to a great degree, and



superiority above the occupation that they choose to call homely and a thankless task. This fever of unrest has been contagious, and in many ways a detrimental

factor, introduced by hand-free women of ambition and possessing business tact and ability. It is natural and not wrong that women should aspire to moneyed independence, and in so many instances it is through necessity, and necessity alone, that women have entered the channels of labor where pay might be assured, and more women are wage-workers from necessity to-day than from choice.

Woman is naturally domestic. Husband, children and home are the principles of her province, and she loves the protection and the seclusion of home better than she does business worries and perplexities. Ask her collectively, and you will find it so. If she may add to her wardrobe and household stores through money-bringing efforts conducted at home, her attempt and success is very pardonable, and, we feel, a very praiseworthy one. And housewives thus doubly employed, if physically fitted to the endurance, are the happiest of women to be found, and they are the makers and keepers of the happiest and the most homelike of homes. They should be commended, not condemned.

ELLA HOUGHTON.

SKIRT-CUTTING.

Before giving directions for the cutting of dress-skirts we wish to say that for all home dressmaking the patterns put out by various reliable firms are preferable to any of the drafting or tailor systems we have examined. Various changes in the form of the different parts of patterns are constantly being made, and a dress must be of the latest cut if one is to be stylishly attired. As a supplement to the use of patterns the knowledge of a good tailor system is very desirable, but not essential.

Use good, firm material for skirt-linings—cambric, percaline or taffeta. We use a good quality of cambric, generally, as it is least expensive and gives very good results. Of course, haircloth is to be preferred for the stiffening of the bottom of the skirt, but as it is quite expensive, we usually use linen canvas. Press linings and stiffenings before cutting if not perfectly smooth.

Cut each section of the lining separately on the run of the goods indicated by the perforations and notches of the pattern, following directions carefully. Use the bottom of each section of the lining as a pattern for cutting the stiffening, and be sure that the grain of both stiffening and lining run in the same direction. Skirts are being stiffened only at the bottom now, the stiffening facing the skirt only from six to ten inches at the bottom. The different sections of stiffening should have the edges marked, with the marks on the corresponding edges of the pattern, to indicate their proper joining; the stiffening being seamed separately when canvas is used. Notch the top. When haircloth is used, each section should be stitched at the top to the corresponding section of lining, and should interline the skirt at the bottom when put together.

Look at your dress material. See if there is a nap, which brushed one way is raised or roughened, but looks smooth when brushed the other way. The nap of a skirt should look smooth when brushed downward if the material is cloth, the reverse if the material is velvet. Cut your

dress, but such a dress can be worn in the rain without fear of spotting or shrinking.

Lay the front section of the lining on material, being sure that the warp of the material runs true with the warp of the lining. Baste down the center, then around the section about two inches from the edge, with rather long stitches, being careful that the lining lies smoothly on the material. Follow the edge of the lining carefully in cutting. Cut the other sections of the skirt in a like manner, omitting bastings down the center of all but the middle-back gore, if there is one. Some skirts have a seam in the middle of



material so that the nap all runs down if cloth, or up if velvet, is a good general rule for both waist and skirt.

If you have any regard for style or even a genteel appearance, don't try to save goods by disregarding this rule.

If your dress material spots, it should be carefully sponged all over and pressed with a warm iron on the wrong side, with an intervening thickness of thin muslin. Test a piece of your material by dropping water upon it and drying to see if it spots; also test the effect of sponging and pressing, as some colors are affected by the heat of the iron. It is considerable trouble to sponge all the material for a

the back; leave bastings in until skirt is finished and pressed. For the band cut two strips of the desired width and length, one of the dress material for the outside of the band, the other of the lining as a facing for the band. Allow for lapping the band over the placket-fly. Cut two pieces for placket-fly, one of the material, the other for facing the fly, of the lining; also a strip of material for facing the other side of the placket. Cut into half-inch-wide strips all the selvages of the scraps of lining. These strips are to be sewn with the bias seams to prevent sagging at the seams. If a stay-strip is to be cut, it is wise to make it of elastic, though

such a thing as a tie-back is not to be suggested. Of course, a person needs to have natural aptitude in cutting to be able to adapt a pattern (even of a skirt) to all figures. Patterns are cut for perfect forms, but a very little ingenuity adapts them to even very imperfect ones, and there is no reason why any woman should not have neatly hanging skirts.

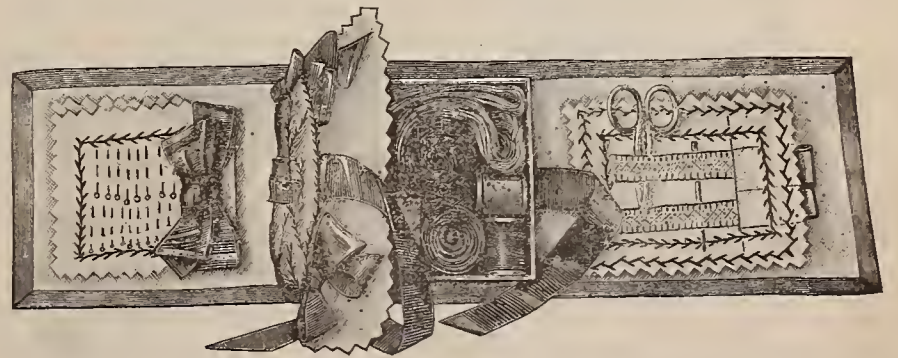
LUCY C.

A HANDY NEEDLE-CASE.

The outside of this can be made of chamois, with the design worked in wash-silk; the inner part of satin, which should

ter only. Two crisp lettuce-leaves are then patted down upon the buttered biscuit, and trimmed to the same size, leaving a hint of green to show all around the edges. A layer of mayonnaise dressing is then spread upon the lettuce, and on one is afterward spread a thin layer of finely minced ham or chicken; after which the two halves are laid together, pressing lightly. They should be served soon—before the lettuce wilts or biscuits have time to become heavy.

FRUIT SANDWICHES.—These are very nice, and may be used as a part of the regular course for a luncheon, tea or picnic, or



lap over onto the right side to simulate a hem. In the middle of the inside is attached a shallow box, covered with the satin, to hold spools and tape. The flannel leaves on either side, for needles, scissors and bodkin, explain themselves.

TOOTHsome SANDWICHES.

One of the newest and daintiest sandwiches is made from tiny soda-biscuit not over three inches in diameter, and when baked, about half an inch in thickness. They must be quite fresh, though perfectly cold. Split each in two with a sharp knife, and butter—just a suspicion of but-

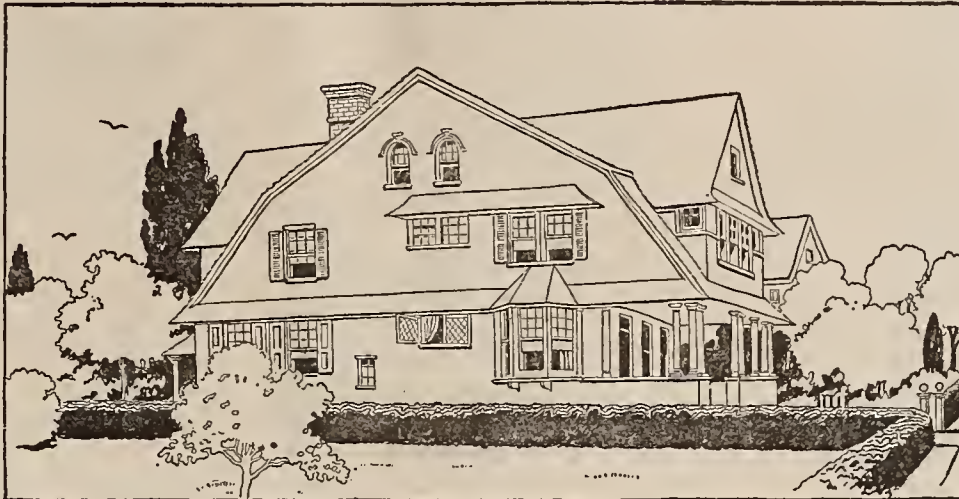
as a dessert, served with coffee or with lemonade. The bread should be very fresh, cut as thinly as possible and well spread with the sweetest and best of freshly made butter.

Large strawberries cut in slices, lightly crushed raspberries, or sliced peaches or sliced bananas and oranges together may be used. The fruit should be lightly pressed into the butter, liberally sprinkled with sugar and served within a short time. Slices of sponge-cake, spread with whipped cream, then with sweetened fruits, and served at once, make a nice dessert for a garden party.

CLARA SENSIBAUGH EVERTS,

A Model \$2200 House

(for a 30-foot Front Lot)



Fully described in the September

Ladies' Home Journal

A new series of plans for \$1000, \$2000 and \$2500 houses just begun.

In coming numbers will be published a series of illustrations showing the furnishing of a hundred American homes of good taste, but costing little money.

Special Features in September Number

Mrs. Rorer's Cooking Lessons

Dwight L. Moody's Bible Class

Mrs. Bottome's History of The King's Daughters

And always the best of Literature and Illustrations

\$1.00 per Year

10 cts. a Copy

The Curtis Publishing Company, Philadelphia

Agents Wanted—write for Special Terms and Cash Prize Offers

Our Household.

SUMMER SKETCHING.

NO one should let a summer pass without recording a few of its scenes and events in sketches.

You may object that you have not been taught sketching. Some instruction is a great advantage, but experiments will serve the office of teacher.

Sketching from nature is not an exact science. A little picture with many defects may afford enjoyment. If you have always lived in the same home, doubtless some member of the family has wandered afar, and he will value a little sketch of the barn, the old-fashioned well, the garden gate or the old side porch. The camera with its magic button may reproduce scenes by the dozen, but they will lack the interest of one little free-hand sketch.

Some persons have a natural sense of perspective and although they may not be able to explain the rules, they observe them. Perspective is that branch of art whereby on a plain surface objects are made to appear at proper distances. There are two kinds of perspective, aerial and linear. The two words explain themselves. Aerial perspective results from the indistinctness given to objects by the density of the atmosphere which intervenes between the spectator and the scene observed. This gives that charming blue hazy effect to distant forests, and causes the line of the horizon to be soft. This is one of the chief beauties in nature and in pictures.

Linear perspective relates to lines: if you look down a straight street it seems

sketches of the various scenes which were the background to various chapters of your life.

Sketching material may be pen and ink on Bristol-board, pencil and paper, or water-color paints, paper and brushes.

K. K.

FRUIT DESSERTS—PEARS AND PLUMS.

1. Fresh Pears and Plums.
2. Pear Pie No. 1.
3. Pear Pie No. 2.
4. Baked Pears.
5. Iced Pears.
6. Plum Pudding.
7. Plum Pie.
8. Plum Cake.

In very few ways can these two kinds of fruit be cooked, but they are scarcely less delicious when fresh than other fruits. Pears when passed at the table should be served with a dainty fruit-knife, particularly if the skin be at all tough, as is the case with so many otherwise very fine specimens. They should look tempting and be tempting—fresh and compact, with no soft spots, and yet at the same time should be fully ripe. An unripe pear is certainly not very digestible.

Plums should also be fully ripe, but should not be too much so. A plum that has grown so ripe that it has become soft is not at all appetizing, spoiling your appetite for other good things to come.

The purple, red and white plums, when perfectly ripe, make a very pretty dish when passed as fresh fruit, as do the delicious yellow-cheeked Bartlett pears, the rosy-faced Flemish Beauties, and some of the good old pears which grow in the old-



to be more narrow at a distance, till the sidewalks seem to meet. If you look down a row of trees which are really of the same height, they seem gradually to become shorter. Learn to notice these phenomena as you walk and ride about the country.

In sketching from nature, do not begin by including many objects in your picture. If you have too complex a scene you will grow tired of it and finish it carelessly. One clump of bushes, one corner of the house, one window with the flower-pots on the sill—some simple thing will be enough to claim your ability as a beginner.

If you are not settled in an ancestral homestead, but change your abode occasionally, it will be pleasant to retain

fashioned country gardens, and which are more to my liking than the more noted varieties.

PEAR PIE.—For variety's sake these recipes have been collected from different sources, even though this fruit is generally preferred uncooked. Line your pie-plate with crust; slice into it mellow Bartlett pears (of course others will do, but Bartletts are usually preferred) until the plate is "heaped." Mix one quarter cupful of sugar, the grated rind and juice of half a lemon, and one inch of candied ginger-root sliced thin; sprinkle part of this on the crust and the remainder among the sliced pears; cover with the second crust, and bake quickly.

No. 2 PEAR PIE, which is quite different

from the above, is just as palatable. In this case pears sound but not quite ripe are to be used. If they should happen to be large or thick-skinned, they must be pared. Put them into a deep covered pudding-dish, with half a cupful of water, two tablespoonfuls of molasses and two of brown sugar. Bake slowly until tender, and baste often with the syrup. Bake two crusts with cloth between. When ready to serve, slice about one pint of baked pears, add two or three tablespoonfuls of cream, cover with the other crust, and serve at once.

BAKED PEARS.—Put into a pan pears which have been washed, but which are unpared, add one or two teaspoonfuls of water, and then bake; sprinkle with sugar, and serve with their own syrup. Many pears which are not as nice as they might be originally, when baked as above turn out to be very good indeed.

ICED PEARS make a very pretty and dainty dish. The pears may either be iced whole or quartered, or even sliced. Take a few fine juicy ripe pears, pare and quarter them, or if very large they should be divided into eighths. They are now ready for the icing process. Dip them into well-beaten white of egg, and then dip them into powdered or confectionery sugar, and set away in a dry place to slightly harden; after which repeat the process of crystallizing, and continue to repeat it until you have the icing the desired thickness. Some place them for the final crystallization process in an oven that is cooling. After standing several hours to crystallize or harden, place in a refrigerator or other cool spot so that they can be thoroughly chilled before serving. When the fruit is iced whole, the skin should be removed, and then the crystallizing process performed as before.

PLUM PUDDING.—While this recipe requires plums indirectly, it does not require the fresh fruit. Still, I have selected it as being a very nice dessert. The ingredients required are one pound of suet finely chopped, one pound of flour, four eggs, one pint of milk, one pound of currants, one pound of raisins, with spice to taste. This should be boiled in a bag or form for three or four hours. If a bag is used (which is perhaps the most common way of cooking pudding of this sort) but a little room should be allowed for it to swell. Serve with hard or vanilla sauce.

PLUM PIE.—Cover your pie-pan with crust, and fill it with plums which have been stewed in a very little water, stoned, and sweetened to taste. Mix one rolled cracker with the fruit if it be very juicy, cover with the upper crust, bake quickly.

PLUM CAKE.—This is also a plum dessert which requires no fresh fruit. Cream one cupful of butter and three cupfuls of sugar, add one cupful of cream, five eggs, five cupfuls of flour, two teaspoonfuls of soda (the flour and soda should be sifted together) and one half pound of raisins. Dredge the raisins first, that is, dip them into flour, mix well, and bake.

The field for pear and plum desserts is rather a limited one, the different kinds of desserts being fewer in number than other fruits, such as apples, peaches, etc., still an attempt has been made to collect a few very desirable ones.

EMMA LOUISE HAUCK.

CHILDREN'S DRESSING.

A comfortable bicycle suit for a boy is a blouse of outing-flannel and blue serge knickers. As several blouses must be necessary, a color and quality that will wash well is desirable; those of light blue and white are the best.

Stockings made without feet, with a strap under the middle of the foot, can be pulled on over the other stocking. These come ready made in all the pretty golf patterns, and need not find their way into the wash so often.

IVORY SOAP

It FLOATS

Divide a cake with a stout thread and you have two perfectly formed cakes of convenient size for the toilet

THE PROCTER & GAMBLE CO., CINTI.

A soft hat of cloth is best, as the wind is not so apt to carry it off.

The little girl's dress is entirely of sun-pleated material, even the hat; and if made of wool or silk, will last two seasons, one as a summer dress and with white guimpes as a house dress in winter. Small children should wear out their clothing while it fits them.

Children have too many clothes, and in this way there are always clothes to make over. A good plan is to have two dresses of the same material, so that later on they can be joined and made one good one.

L. L. C.

HAVE YOU ASTHMA OR HAY-FEVER?

Medical science at last reports a positive cure for Asthma and Hay-fever in the wonderful Kola Plant, a new botanical discovery found on the Congo River, West Africa. Its cures are really marvelous. Rev. J. L. Combs, of Martinsburg, W. Va., writes that it cured him of Asthma of thirty years' standing, and Hon. L. G. Clute, of Greeley, Iowa, testifies that for three years he had to sleep propped up in a chair in Hay-fever season, being unable to lie down night or day. The Kola Plant cured him at once. Mr. Alfred C. Lewis, editor of the *Farmer's Magazine*, was also cured when he could not lie down for fear of choking, being always worse in Hay-fever season. Others give similar testimony, proving it truly a wonderful remedy. If you suffer from Asthma or Hay-fever you should send your address to the Kola Importing Co., 1164 Broadway, New York, who to prove its power will send a Large Case by mail free to all who need it. All they ask in return is that when cured yourself you will tell your neighbors about it. It costs you nothing and you should surely try it.

COOKING MADE EASY

Woods' Kitchen Cabinet (Patented)

has a place for everything and everything in its place. Its use lightens labor and saves waste.

Roll Top and Drawers for Table Linen are special features.

A fine piece of furniture—economical—an ornament in any household. It is made of hard wood, handsomely finished and guaranteed best workmanship throughout. Descriptive circular free.

QUEEN CABINET CO. 213-215 Monroe St. Chicago



A Strong SHOE Item THE VOYAGEUR A Perfect SHOE

MADE from Haulsell's highest grade kid skins, inner and outer soles of oak tan sole leather, inserted lace stays of kid, patent leather or cloth, kid and patent leather tips of very newest patterns, graceful outlines, modish, chic and perfect fitting, as good material and workmanship as any \$4.00 or \$5.00 shoe. In three styles toes, dime, quarter and coin (illustration shows coin toe) lace or button. In widths AA to E; sizes 3 to 8. When ordering mention kid or patent tip, button or lace.

Postage on Shoes, 20 cents.

CATALOGUE FOR FALL AND WINTER

Ready Sept. 15, FREE.

Send for a Copy

Every Department Well Represented.

Please mention Farm and Fireside when writing.

40 Cent Patterns for 10 Cents

Any Three Patterns, and Farm and Fireside One Year, 50 Cents.

These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only 10 Cents Each.

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there

being a separate pattern for every single piece of the dress. All orders filled promptly.

For ladies, give BUST measure in inches. For SKIRT pattern, give WAIST measure in inches. For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded.

To get BUST and BREAST measure, put the tape measure ALL of the way around the body, over the dress close under the arms.

Special price of each pattern, 10 cents.

Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.



No. 7152.—LADIES' SHIRT-WAIST, WITH TUCKED FRONT. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7153.—CHILD'S APRON. 10 cents. Sizes, 4, 6, 8 and 10 years.



No. 7150.—LADIES' AND MISSES' RUSSIAN BLOUSE WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust, and 12, 14 and 16 years.



E.C.

No. 7140.—LADIES' WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7138.—LADIES' MORNING GOWN. 11 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.



No. 7114.—LADIES' CAPE. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.



No. 7142.—LADIES' MATERNITY JACKET. 10 cents. Sizes, 34, 38 and 42 inches bust.



No. 7112.—LADIES' BASQUE, WITH TWO UNDER-ARM GORES. 10 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

I have used your patterns for three years, and prefer them to any other; have never had one to fail me. Please send Catalogue. MRS. CLARA A. HAMILTON, Selma, Cal.



No. 7134.—LADIES' SLEEVE, WITH EPAULETTE. 10c. Sizes, 32, 36 and 40 inches bust.



No. 7132.—LADIES' NIGHTGOWN. 11 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.



No. 6806.—LADIES' BELTED BASQUE. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust. Postage paid by us. Send one cent for catalogue.



No. 7151.—GIRLS' FROCK. 11 cents. Sizes, 4, 6, 8 and 10 years.



No. 6878.—LADIES' BASQUE. 10 cents. Sizes, 32, 34, 36, 38, 40, 42 and 44 inches bust.



No. 7149.—LADIES' MATERNITY SKIRT. 11 cents. Sizes, 24, 28 and 30 inches waist.

Address FARM AND FIRESIDE, Springfield, Ohio.

Our Sunday Afternoon.

FAITH.

I cannot tell how the lilies
From their beds creep up so far;
I can only pluck them gently.

THE SUN STANDING STILL.

THERE are people who have great difficulty about believing the statements contained in the Bible.

I can easily explain how the earth was made to stand still if some one will tell me how it is made to move.

When Stevenson built his locomotive a skeptical critic said, "She'll never start;" but when the steam was turned on and the engine was set in motion, he said, "She'll never stop."

But no man has yet investigated the world to find the secret power that rules it and runs it.

A man who could invent a steam-engine might be trusted to invent a brake to stop it, and a God who could make a world and run it for thousands of years could find means to slow down its motion a little if he desired to.—The Christian.

ABBA.

"Abba" is a Syriac form of the Hebrew word "father." It is really Aramaic. Then we have given to us the Greek equivalent, which is rendered "Father."

though God allowed them to call him Father, and encouraged them, we have no record that the Old Testament saints ever employed the word.

DON'T HURRY.

Haste makes waste. If you have but five minutes to do a thing it may pay to take one minute to plan how it shall be done.

"You didn't run fast enough," said a bystander to an Irishman who came puffing into a railway station just after the train glided out.

"Yes, I did run fast enough," said Patrick, "but I did not start soon enough."

Dawdle in the morning causes hurry at night. The man who is up betimes, and gets an early start, does not need either to hurry or worry.

"Time enough" is always little enough; and the time lost in idleness and neglect is not to be made up in frantic haste.

"We can spoil more work, do more damage to all concerned, and create more needless delay, by anxious, unseemly and precipitate haste than perhaps in any other way.

"Time enough" is always little enough; and the time lost in idleness and neglect is not to be made up in frantic haste.

"We can spoil more work, do more damage to all concerned, and create more needless delay, by anxious, unseemly and precipitate haste than perhaps in any other way.

SACRIFICE.

Sacrifice has gone out of fashion among Christians to quite an alarming extent. The very meaning of the word is almost forgotten.

Yes. Here is the key to sacrifice—none else but love. Here is the motive power that shall make sacrifice not only possible, but easy.

Then you will not wait for commands to compel you to voice the pent-up feelings of your inmost soul.

Fainting Spells and Dizziness Follow La Grippe.

WE HEAR LESS ABOUT THIS DISEASE THAN FORMERLY, BUT IT IS STILL VERY PREVALENT.

From the New Era, Greensburg, Ind.

A noteworthy instance of the fallibility of even the most skillful physicians is furnished in the case of Mrs. J. E. Smith, of Greensburg, Ind.

For four years Mrs. Smith was afflicted with a nervous affection that finally left her almost completely helpless and which the physician who first attended her said positively could not be cured.

To-day in spite of the verdict of the doctors, and without their aid, Mrs. Smith is perfectly well.

"After having the grippe," said Mrs. Smith, "I was able to be about for awhile, and to do some work.

"Five years ago I had a severe attack of la grippe, followed later by another.

"After having the grippe," said Mrs. Smith, "I was able to be about for awhile, and to do some work.

ness of the throat and breast, and after treating me for several months said that my case or any case like mine positively could not be cured.

Dr. Williams' Pink Pills contain, in a condensed form, all the elements necessary to give new life and richness to the blood and restore shattered nerves.

This \$5.00 Outfit FREE

The 44 tools and articles in this outfit, purchased singly in retail hardware-stores, would cost not less than \$5.00.

\$5 OUTFIT FOR \$2 OR GIVEN FREE FOR A CLUB AS PER OFFER BELOW.

A COMPLETE OUTFIT OF TOOLS AND MATERIALS FOR BOOT, SHOE, RUBBER, HARNESS AND TINWARE REPAIRING.



Consisting of 44 First-class Tools and Materials Shown in Cut, namely:

1 Iron Last for Men's Work (reversible); 1 Iron Last for Boys' Work (reversible); 1 Iron Last for Women's Work (reversible); 1 Iron Last for Children's Work (reversible); 1 Iron Stand for Lasts; 1 Shoe-hammer; 1 Shoe-knife; 1 Peg-awl Handle; 1 Peg-awl; 1 Wrench for Peg-awl Handle; 1 Sewing-awl Handle; 1 Sewing-awl; 1 Stabbing-awl Handle; 1 Stabbing-awl; 1 Bottle Leather Cement; 1 Bottle Rubber Cement; 1 Bunch Bristles; 1 Ball Shoethread; 1 Ball Shoe-wax; 1 Pkg. Clinch-nails, 4-8 in.; 1 Pkg. Clinch-nails, 1/2 in.; 1 Pkg. Clinch-nails, 3/8 in.; 1 Pkg. Heel-nails; 4 Pcs. Heel-plates, assorted sizes; 6 Harness-needles; 1 Harness and Saw Clamp; 1 Box Slotted Rivets, assorted sizes; 1 Rivet-set for same; 1 Harness and Belt Punch; 1 Soldering-iron, ready for use; 1 Handle for same; 1 Bar Solder; 1 Box Resin; 1 Bottle Soldering-fluid; 1 Copy Directions for Half-soling, etc.; 1 Copy Directions for Soling.

All these tools are full-sized and practical in every respect; in fact, they are the same tools, etc., used by regular shoe and harness makers everywhere.

PRICE OF OUTFIT, AND FARM AND FIRESIDE ONE YEAR, \$2.00.

We want clubs; we want to increase the number of Farm and Fireside subscribers in every neighborhood, so there must be club-raisers.

Get Four Orders, Send Us Eight Dollars, and We Will Send to You FIVE Outfits, and to Each of the Five Persons Farm and Fireside One Year.

The outfit will be shipped by freight, the charges to be paid by the receiver in every case. One outfit weighs 20 pounds; five outfits (to one address), 100 pounds.

Address FARM AND FIRESIDE, Springfield, Ohio.

PATENTS LEHMANN, PATTISON & NESBIT, Washington, D. C. Examinations Free. Send for circulars

TYPEWRITER HEADQUARTERS, 102 Fulton St., New York, sell all makes under half price. Don't buy before writing them for unprejudiced advice and prices.

A BIG OFFER 50c. MADE IN A MINUTE! If you will hang up in the P. O., or some public place, the two show bills that we send, we will give you a 50c. cert., and send it in advance with samples and bills.

GIANT OXIE CO., 126 Willow St., Augusta, Me. Mention this paper.

Queries.

READ THIS NOTICE.

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge.

Rug-machine.—E. W., Hammondsport, N. Y. Rug-machines are made by E. Ross & Co., Toledo, O.

Gourd Seed-corn.—R. W., Houston, Tex. You can get gourd seed-corn from T. W. Wood & Sons, Richmond, Va.

Cabbage-worms.—E. T. L., Sellersburg, Ind. To clean your cabbage of worms, try a small quantity of salt sprinkled over the heart of each plant.

Hull-less and Beardless Barley.—W. A., Chelsea, Mich., and W. R. C., Butler, Ind. Hull-less barley is a sort in which the grain shells out of the chaff like wheat.

Celery-blight.—F. T., Seymour, Conn., writes: "Please inform me what will keep rust from celery."

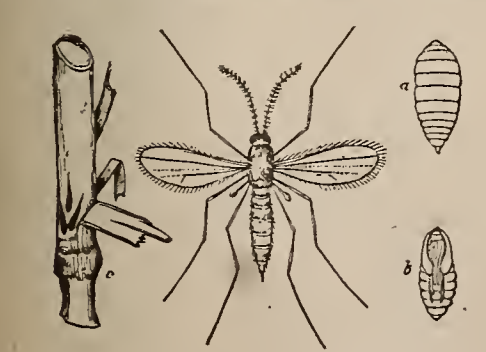
REPLY BY T. GREINER.—That is something a good many people would like to know. Cool and moist soil and a rather cool and moist atmosphere are the best remedies for the different forms of celery blight or rust.

Tomatoes Failing to Set.—R. A. S., Wilton, Conn., writes: "I got some Matchless tomato-plants, good strong ones, too, but I notice that half, if not more, of the blossoms do not set, and what tomatoes do form split while green before gaining any size."

Spinach and Asparagus.—G. R., Boston, Pa., writes: "When should I sow spinach-seed for fall and spring use, and how thick should the seed be sown?"

Hessian Fly.—S. E. C., Parsons, Kan., writes: "Please describe the Hessian fly."

REPLY.—The accompanying illustration shows the Hessian fly and its young. It is a small, two-winged gnat, resembling a mosquito in shape and size; it is the larva; h. pupa; c. stalk of wheat infested by larvae.



and stalk, a little below the surface of the ground. Here they remain, heads downward, imbibing the sap from the plant by suction and become embedded by pressure in the side of the stem.

VETERINARY.

Conducted by Dr. H. J. Detmers.

To regular subscribers of FARM AND FIRESIDE answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should inclose a fee of one dollar, otherwise no attention will be paid to such a request.

Probably Swine-plague.—W. H. M., Agri-cola, Kan. What you describe are common features of swine-plague, or so-called hog-cholera.

Chronic Metritis.—D. M., Bay Shore, Mich. Your cow suffers from chronic metritis, and should not be bred until her sexual organs are again in a perfectly normal condition.

Paralytic Pigs.—W. B., Liberty, Neb. Please consult FARM AND FIRESIDE of August 15th. As to your case, your description would convey the impression that your pigs are dying of swine-plague, if it were not for the statement that the same have good appetites to the last.

Wind-galls.—C. S. B., Bancroft, Mich. It is very seldom that so-called wind-galls cause any lameness; it therefore stands to reason that the lameness you speak of has an entirely different source, which, I have no doubt, will come to light if the horse is thoroughly examined.

Probably Swine-plague.—L. B., Lorton, Neb. What you describe resembles a case of swine-plague (so-called hog-cholera). All you can do is to separate all the animals yet healthy and take them to a non-infected place, if possible on high and dry ground, or, at any rate, on ground that does not receive any drainage from any infected place, and to keep them there in every respect, in regard to attendance as well as to food and drink, strictly separated from anything infected or possibly able to be a carrier of the infectious principle.

Dislocation of Both Patellas in a Young Colt.—E. H., Croton, Mich. Although the patella of one leg became dislocated on the second and that of the other on the third day after the birth of the young colt, the latter would have had a very fair chance of recovery if prompt reposition had been effected, which would not have been very difficult.

Protection of Cows Against Flies.—C. H. W., Batesville, Ind. The best protection of pasturing cows against the torments of flies is probably applied by the Holland farmers. They cover their cows when in pasture during the fly season with light muslin blankets, and claim that the cost of the blankets is more than compensated for by the increased yield of milk, because thus protected the cows do not need to waste all their energies in warding off the flies, and can without molestation attend to their huskiness—eating, ruminating and resting.

A Lame Steer.—W. R., Uniontown, Kan. Examine the cleft between the hoofs of your steer very thoroughly, even if you should have to throw the animal for examination; and then, if you find the cause there, as I expect you will, cut away with a sharp hook-knife all the loose and decayed horn, clean the sore in a thorough manner, dress the same with a mixture of liquid subacetate of lead and olive-oil, one part of the former to three parts of the latter; cover it with absorbent cotton, and apply a bandage for protection. Renew this dressing twice a day until a healing has been effected.

A Swelled Udder.—J. S. B., Kansas City, Mo. Your three-year-old Jersey cow either suffers from neglected garget or from tuberculosis in the mammary glands. If it is the former the remedy, unless already too late, consists in frequent milking once every two hours until the swelling has disappeared, and the milk has become normal, and after that three times a day as long as the cow is at the height of milk production.

Run a Nail Into the Fore Knee.—G. C., Kearney, Neb. As the accident to your horse already happened in the spring, as it does not proceed from your communication how deep the nail entered and what parts have been injured, and as the wound, which has not yet healed, has now assumed a fistulous character, it will be by far the best to have the animal treated by a competent veterinarian, because in such a case it is a very precarious thing to prescribe a treatment without having an opportunity to make a thorough examination and thus ascertain the true condition and extent of the injury.

- ARMSTRONG & McKELVY Pittsburgh.
BEYMER-BAUMANN Pittsburgh.
DAVIS-CHAMBERS Pittsburgh.
FAHNESTOCK Pittsburgh.
ANCHOR Cincinnati.
ECKSTEIN Cincinnati.
ATLANTIC New York.
BRADLEY New York.
BROOKLYN New York.
JEWETT New York.
ULSTER New York.
UNION Chicago.
SOUTHERN Chicago.
SHPMAN Chicago.
COLLIER St. Louis.
MISSOURI St. Louis.
RED SEAL St. Louis.
SOUTHERN Philadelphia.
JOHN T. LEWIS & BROS CO Philadelphia.
MORLEY Cleveland.
SALEM Salem, Mass.
CORNELL Buffalo.
KENTUCKY Louisville.

PRACTICAL painters everywhere use and recommend Pure White Lead (see list of brands which are genuine) and Pure Linseed Oil because they make not only the cheapest but by far the best paint. In fact you cannot afford to use anything else.

FREE By using National Lead Co.'s Pure White Lead Tinting Colors, any desired shade is readily obtained. Pamphlet giving valuable information and card showing samples of colors free; also cards showing pictures of twelve houses of different designs painted in various styles or combinations of shades forwarded upon application to those intending to paint.

National Lead Co., 1 Broadway, New York.

Advertisement for BEETHOVEN PIANO & ORGAN CO. featuring a piano and organ, with text: '\$25.00 and up. ORGAN', 'INCORPORATED FOR 50 YEARS', 'FREE', '\$160.00 and up.', 'ADDRESS BEETHOVEN PIANO & ORGAN CO. P. O. Box 628 Washington, N. J.'

Advertisement for TABLESPOONS Silver-plated and Initialed. Features a large illustration of a spoon with a monogram 'B'. Text includes: 'An Entire Set of 6 Spoons Counts as One Premium. This Illustration Shows Exact Size of Tablespoons.', 'Our new teaspoons have given such universal satisfaction that many have asked us if we could not furnish tablespoons to match.', 'Guaranteed to be as Described Below and to Give Entire Satisfaction or Money Refunded.', 'OUR OFFERS. Set of 6 Tablespoons, and This Paper One Year, \$1.25. Set of 6 Teaspoons, and This Paper One Year, .75. The Sugar-shell, and This Paper One Year, .50. The Butter-knife, and This Paper One Year, .50. GRAND COMBINATION OFFER. If ordered at one time and to one address, we will send the set of 6 tablespoons, set of 6 teaspoons, 1 butter-knife and 1 sugar-shell, 14 pieces in all, and this paper one year, for TWO DOLLARS. INITIAL LETTER Each and every teaspoon, tablespoon, sugar-shell and butter-knife will be engraved free of charge with an initial letter in Old English. WILL STAND ANY TEST. To test this silverware, use a file. If not found as represented, we will refund your money and make you a present of the subscription. If returned to us we will replace, free of charge, the piece of ware damaged in making the test, provided you tell some of your neighbors what the test proved. When any of the above offers are accepted no commission is allowed and the names cannot count in a club, but the paper will be sent to one address and the premium to another if so desired. FARM AND FIRESIDE, Postage paid by us. SPRINGFIELD, OHIO.'

Our Miscellany.

For the first time in the history of Cornell University the "Steward L. Woodford prize in oratory" has been won by a woman.

The farmer who does not learn all about the "Southwick" Hay Press, made by the Sandwich Manufacturing Co., 125 Main St., Sandwich, Ill., before he buys makes a mistake.

THE well-known British statistician, Mr. Mulball, points out in a paper on the subject that, relatively to population, no European country can vie with New England in the matter of manufacture.

AN exquisite art production is "Our Old Shop," published by Studebaker Bros. Mfg. Co., South Bend, Ind. It tells all about the lightest running and most durable wagon made.

If the details and figures given by a correspondent of the Chicago "Record" are exact, concerning one of the pumps of the Calumet and Hecla mine, it is without doubt the greatest mechanism of the kind in the world.

In another column appears a shoe advertisement of the great house of Siegel, Cooper & Co., Chicago.

HIS JOB IS GONE.

The past few weeks have been fraught with woe, woe, woe, for the calamity bowler. His job is gone, and let us hope he will seek some dark and noisome cave far removed from civilization and biberate till the human beings now on earth will forget that there ever existed such a disagreeable thing.

From every quarter comes bright news. In nearly every branch of business there is noted either a decided improvement or infallible signs of early improvement.

Trade has shown a steady increase from the first of the year, and prospects were never brighter for good trade than at present.—Farm Machinery.

CHEAP EXCURSION WEST VIA BURLINGTON ROUTE.

One fare plus \$2.00 for the round trip to Nebraska, Kansas, St. Paul, Minneapolis, Black Hills, certain portions of Iowa, Colorado and Utah.

Recent Publications.

BOOK NOTICES.

HOUSE-PLANTS, AND HOW TO SUCCEED WITH THEM. By Lizzie Page Hillhouse. A practical handbook for women who have no hot-house or conservatory.

HISTORY OF MONETARY SYSTEMS. A record of actual experiments made by various states of the ancient and modern world, as drawn from their statutes, customs, treaties, mining regulations, jurisprudence, history, archæology, coins, nummularly systems, and other sources of information.

CATALOGUES RECEIVED.

Electric Wheel Co., Quincy, Ill. Preservation of Farm Products. An illustrated pamphlet describing low-down wagons or wide-tire metal wheels.

Peter Henderson & Co., 35 and 37 Cortlandt St., New York. Descriptive catalogue of seeds, bulbs, plants, tools, etc.

Samuel Cushman, Pawtucket, R. I. Interesting pamphlet on the development of the poultry industry.

The Samuel Wilson Co., Mechanicsville, Bucks county, Pa. Fall catalogue of seed-wheat, fruit-trees, small fruits, flowering plants, fancy poultry, German hares, etc.

German Kali Works, 93-99 Nassau St., New York. Pamphlet, "Use of Potash in German Agriculture," by Dr. Maercker.

BOUNTIFUL CROPS

Are now harvested in Oklahoma and Kansas on the line of the Chicago, Rock Island & Pacific Railway.

It is the best district to engage in farming and lands are cheap. Purchase while you can get a bargain and secure what you want—a farm and home.

JOHN SEBASTIAN, G. P. A., Chicago.

THE GREENHORN'S ADVANTAGE.

I was sitting on a keg of nails in a West Virginia mountain store watching a native dickering with the merchant over a trade of a basket of eggs for a calico dress.

"It isn't any business of mine," I said, "but I was watching that trade, and was surprised to see you let the eggs go for the dress."

"What fer?" he asked in astonishment, as he mounted his horse.

"How many eggs did you have?" "Basketful." "How many dozen?" "Dunno. Can't count."

"That's where you miss the advantages of education. With knowledge you might have got two dresses for those eggs."

"But I didn't want two dresses, mister," he argued. "Perhaps not, but that was no reason why you should have paid two prices for one. The merchant got the advantage of you because of his education. He knew what he was about."

He looked at me for a minute, as if he felt real sorry for me. Then he grinned and pulled his horse over close to me.

"I reckon," he half whispered, casting furtive glances toward the store, "his education ain't so much more'n mine ez you think it is. He don't know how many uv them aigs is spiled, an' I do," and he rode away before I could argue further.—Boston Herald.

TRIAL FREE.

If you have rheumatism, try that simple remedy which cured me. Trial package and other information free. Address John A. Smith, Dept. H, Milwaukee, Wis.



SAVE 1/2 YOUR FUEL

By using our (stove pipe) RADIATOR. With its 120 Cross Tubes, ONE stove or furnace does the work of TWO. Drop postal for proofs from prominent men.

TO INTRODUCE OUR RADIATOR, the first order from each neighborhood filled at WHOLESALE price, and secures an agency. Write at once.

ROCHESTER RADIATOR COMPANY, 8 Furnace St., ROCHESTER, N. Y.

SEED WHEAT.

FREE Catalogue containing description and prices of pure Seed Wheat; also Small Fruits, Plants, Bulbs, Fancy Poultry, etc., mailed FREE. Samples of five different varieties of Seed Wheat and Rye mailed on receipt of 4 CENTS in stamps.

KEYSTONE DOUBLE SPIRAL FODDER SHREDDERS. Shred corn for ensilage and dry fodder. They don't cut it, or rip it up & tear it in promiscuous pieces.

Don't Stop Tobacco

Suddenly, to do so is injurious to the nervous system. Baco-Curo is the only cure that cures while you use tobacco. It is sold with a written guarantee that three boxes will cure any case.

CANCER CURED Without the use of the knife and with little or no pain.

48 PIECES SILVERWARE FREE. 12 Knives, 12 Forks, 12 Table Spoons, & 12 Tea Spoons, all full size & of beautiful floral design, made by the Sterling Silver Plate Co. & guaranteed.

\$200.00 for CORRECT ANSWERS!

Most Unique Contest of the Age — \$200.00 Paid for Correct Lists made by Supplying Missing Letters in Places of Dashes — No Lottery — Popular Plan of Education — Read All the Particulars.

In the United States four times as much money is expended for education as for the military. Brain is better than brawn. By our educational facilities we have become a great nation.

HERE'S WHAT YOU ARE TO DO. There are thirty words in this schedule, from each of which letters have been omitted and their places have been supplied by dashes.

PRIZES WILL BE SENT PROMPTLY.

Prizes will be honestly awarded and promptly sent. We publish the list of words to be studied out. In making your list of answers, be sure to give the number of each word:

- 1. - R - A - I - A country of South America.
2. - A - I - I - Name of the largest body of water.
3. M - D - - E - - A - E - - A sea.
4. - M - - O - A large river.
5. T - A - - S Well known river of Europe.
6. S - - A - N - A - A city in one of the Southern States.
7. H - - - - X A city of Canada.
8. N - A - A - A Noted for display of water.
9. - E - - E - - E - One of the United States.
10. - A - R - I - A city of Spain.
11. H - V - - A A city on a well known island.
12. S - M - E - A well known old fort of the United States.
13. G - - R - L - A - Greatest fortification in the world.
14. S - A - L - E - A great explorer.
15. C - L - F - - - I - One of the United States.
16. B - S - M - - K A noted ruler.
17. - - C - T - O - I - Another noted ruler.
18. P - R - U - A - Country of Europe.
19. A - S - T - A - I - A big island.
20. M - - I - N - E - Name of the most prominent American.
21. T - - A - One of the United States.
22. J - F - - R - - N Once President of the United States.
23. - U - - N A large lake.
24. E - E - S - N A noted poet.
25. C - R - A A foreign country, same size as Kansas.
26. B - R - - O A large island.
27. W - M - - S - W - R - D Popular family magazine.
28. B - H - I - G A sea.
29. A - L - N - I - An ocean.
30. M - D - G - S - A - An island near Africa.

In sending your list of words, mention whether you want prize money sent by bank draft, money order or registered mail; we will send any way that winners require. The Egeria Diamond is a perfect imitation of a Real Diamond of large size.

JAMES H. PLUMMER, Publisher, 22 & 24 North William Street, Dept. 540, New York City, N. Y.

FOR 5% FARM LOANS, Address, O. U. PERRIN, Crawfordsville, IND. WANT MONEY? Easy to make selling BEVERIDGE'S Automatic Cooker. Practical and satisfactory.

\$12 3000 BICYCLES. Must be closed out at once. Standard '97 Models, guaranteed, \$14 to \$30. 95 models \$12 to \$20.

High Arm TRY IT FREE for 30 days in your own home and save \$10 to \$25. No money in advance.

MENTION THIS PAPER WHEN ANSWERING ADVERTISEMENTS.



"What wuz you a-dumbin'?"

Comic Illustrations

The book is fully illustrated by pictures drawn by a noted comic artist. The four illustrations shown on this page are from the book, and give an idea of the treat in store for all who order a copy. Comic illustrations are the fun-makers for the eyes, and are enjoyed alike by the child who cannot even read and the wise man. The amusement afforded by simply turning the leaves and looking at the pictures in the book is worth more than what we ask for it and a year's subscription.

The Funniest Books Ever Written

To a vast portion of the reading public the works of Marietta Holley, who writes under the name of "Josiah Allen's Wife," and whose books are commonly known as the "Samantha" books, are the funniest ever written. The quaint and homely expression of Samantha Allen, the doings of her life "pardner," Josiah, the gossip about her neighbors, and her "moralizen" on subjects in general in her inimitably humorous way, are really very funny. Yet she draws many a good moral and drives home many a lesson between laughs. Her fun is as pure and wholesome as a little child's prattle, and her books can be read with profit as well as pleasure by every member of the family. Her latest book, "Samantha Among the Brethren," is considered by many to be the best book she has ever written.



"Oh! argue and dispute with a dyin' man!"

A New Samantha Book

BY JOSIAH ALLEN'S WIFE,
Author of "Samantha at Saratoga."

Entitled "Samantha Among the Brethren."

Every reader, especially every reader who enjoys a hearty laugh and rollicking fun, will be pleased to learn that we now have another Samantha book. It is one of the author's best books. Heretofore it has been sold by agents, and, of course, at a high price. We recently purchased the right to publish the book, and for the first time this excellent work is offered to the public at a price which every one can afford to pay. It is

FULL OF FUN AND COMMON SENSE.



"Wedlock's peaceful repose."

(Illustration reduced size.)

It is the
Funniest
and
Most
Popular
of
All the
Samantha
Books

Premium No. 55.

If You
Want to Laugh
and Grow Fat,
Read
"Samantha
Among
the Brethren"

Present subscribers who accept the following or any other offer in this issue of the paper will have their time extended One Year.



"I want 'em to ketch me!"

Our Cheap Introductory Offer

Over 100,000 copies of this book were sold by canvassing agents for \$2.50 a copy, which is the regular agents' price for all the Samantha books. Of course, at this price the purchaser got a fine binding; but the agent and publisher got a big profit, too. Our edition of the book contains every word found in the \$2.50 edition. Our regular price for a year's subscription and a copy of the book is 60 cents, but in order to introduce and advertise it we make the following remarkable offer:

We will send "Samantha Among the Brethren," and Farm and Fireside One Year, for 35 cents. Think of it, only 35 cents!

When this offer is accepted no commission will be allowed and the name cannot be counted in a club. The paper will be sent to one address and the premium to another, if so desired.

Postage paid by us. Address FARM AND FIRESIDE, Springfield, Ohio.

40 Bulbs Free

ALL ARE WINTER BLOOMERS,

OR WILL BLOOM IN THE SPRING IF BEDDED OUT THIS FALL.

A Dollar's Worth of Bulbs When these forty bulbs are ordered from florists' catalogues, at retail prices, they cost not less than One Dollar. The bulbs are all fresh from Holland, the greatest bulb-growing country in the world. We guarantee that they will arrive safely and grow and give entire satisfaction or money refunded.

We will send this collection of forty bulbs, by mail, postage paid, and Farm and Fireside One Year, for 50 Cents.

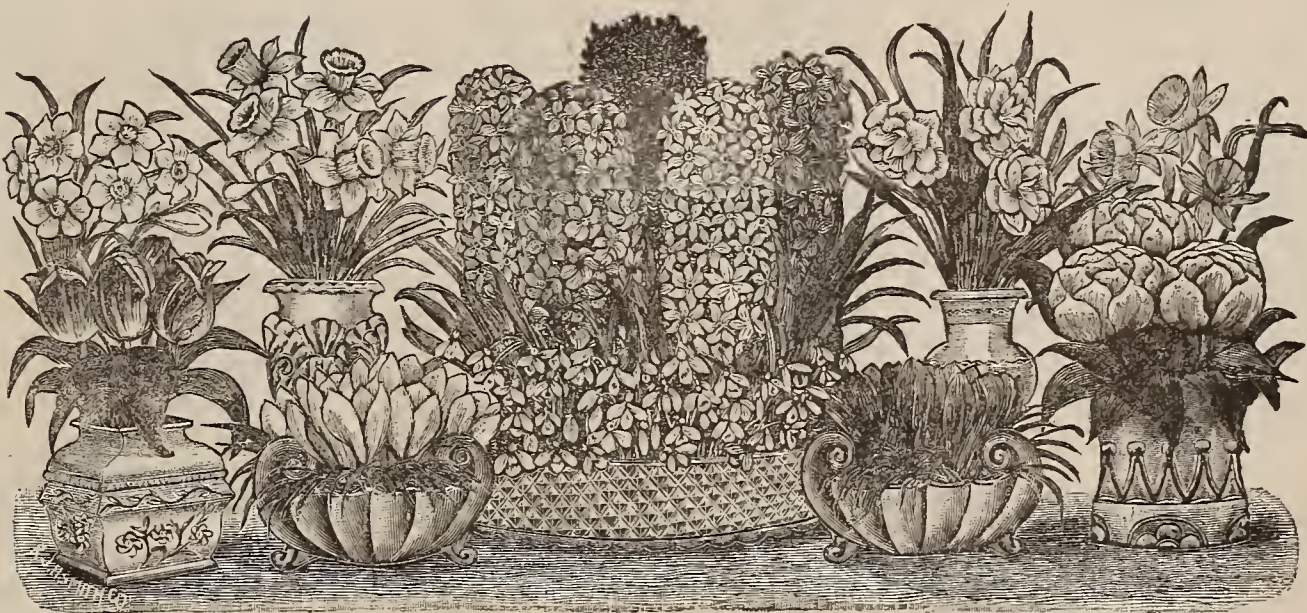
Every flower lover will surely appreciate this bargain in bulbs. Those who have not as yet tried growing flowers from Holland bulbs should not let this opportunity to get a start pass by. Their wealth of bloom and perfume will afford great delight to the grower. All of the bulbs will bloom this fall and winter if planted now in pots, or if bedded out in the yard will bloom next spring.

Premium No. 466.



40 BULBS ASSORTED AS FOLLOWS:

- 5 Hyacinths. 2 Tulips.
- 1 Giant Golden Sacred Lily.
- 3 Narcissus or Daffodils.
- 3 Anemones. 5 Ixias.
- 4 Crocuses. 6 Scillas.
- 3 Snowdrops. 3 Oxalis.
- 2 Freesias. 3 Irises.



Giant Golden Sacred Lily.

Hyacinths are the most popular of all winter-blooming plants. Passing down a city street when snow covers the ground, it is a treat to see numerous windows filled with the magnificent bloom of the hyacinth. They are very beautiful and very fragrant.

Tulips are such universal favorites that it is scarcely necessary to expatiate upon their merits here. Their ease of culture, combined with beauty of form and gorgeous coloring, renders them the most popular bulbs grown for spring bedding, and for winter flowering in windows they are incomparable. The tulip is extremely hardy and of easy culture, flowering as freely in the shade as in the sunshine.

Narcissus or Daffodils Sweet barbingers of Spring, that jump from old Winter's lap, and bedeck the earth with beauty, filling the air with delicious perfume. "The Flowers of the Poets" merit all the praise that can be bestowed upon them. Appearing as they do just after bleak winter, they turn our gardens and lawns into gorgeous masses of gold and silver, with a fragrance that is enchanting. They are equally valuable for growing in pots for winter flowering. They are perfectly hardy.

Giant Golden Sacred Lily hears a lavish profusion of flowers with golden-yellow cups. It is of exquisite beauty and perfume. It is grown by the Chinese according to their ancient custom, to herald the advent of their new year, and as a symbol of good luck. The incredibly short time required to bring the bulbs into bloom (four to six weeks after planting) is one of the wonders of nature. "You can almost see them grow." They do well in pots of earth, but are more novel and beautiful grown in shallow bowls of water, with enough pebbles to prevent them from toppling over when in bloom.

Snowdrops Beautiful white flowers, pushing up through the snow in the spring, a habit from which arose this name. They are lovely blossoms, and should be found in every garden. Indoors they are equally pretty, and easily brought into bloom. They are usually planted along walks or in the margin of beds.

Ixias The Ixias produce their beautiful flowers in spikes, and are of the most dazzling and brilliant colors, and sure to attract great attention. It is only a few years that they have been grown in this country to any extent, but in that time, like the freesia, they have become very popular. For pot culture in the house they give great satisfaction, being of easy culture and free bloomers. Five bulbs can be planted in a five-inch pot, and the display will be magnificent. Lovers of odd and beautiful flowers should add them to their collection.

Crocus The crocus is one of the first flowers of spring, and one of the best for blooming in the house during winter. Four bulbs may be planted in one pot, and will make a very pretty show. For garden culture plant bulbs two inches deep and two or three inches apart. They are so pretty they ought to be found in every garden in abundance. They bloom splendidly when planted on the lawn among the grass. They bloom very early.

Anemones Very beautiful and brilliant spring-flowering bulbs, which should be found in all gardens. They possess a beautiful range of very fine colors, such as brilliant scarlet, red, blue, rose, striped, carnation, etc. For pot culture they are very fine indeed, and succeed best if left in the same pot year after year without removing or disturbing.

Freesia No description can do adequate justice to this beautiful plant. The flowers are two inches long and about the same width, shaped like miniature gladioli, borne in clusters of six to ten on depressed horizontal scapes. The body of the flower is pure white, with lower segments spotted lemon-yellow. The perfume is most delicious, and one plant is sufficient to perfume a large room. Its cultivation is of the simplest, requiring only to be potted, watered sparingly at first, placed in a sunny window and watered more as growth progresses. When out of flower, store in some place and repot at proper season in fresh soil for another year's growth.

Oxalis This is one of the finest winter-flowering plants for pot culture. It is such a strong, luxuriant grower that one bulb will be sufficient for a six or eight inch pot. Place in a dark, cool position for a few weeks to root thoroughly, and remove to a sunny situation in the window, and the great profusion of bloom produced in uninterrupted abundance for weeks will astonish and delight you. Flowers of the purest bright buttercup-yellow. Well-grown plants have produced as high as seventy flower-stems at one time, and over one thousand flowers in one season. The flowers, and frequently the leaves, fold up at night and open again the next morning, but when grown in a partially shaded situation the flowers remain open all the time. They will flower in about eight weeks from the time the bulbs are planted.

The 40 Bulbs, and the Farm and Fireside One Year, 50 Cents.

When this offer is accepted no commission will be allowed and the names cannot be counted in a club. If desired, the paper will be sent to one address and the bulbs to another.

Postage paid by us.

Address FARM AND FIRESIDE, Springfield, Ohio.



It will pay you to buy a Saw with "DISSTON" on it. It will hold the set longer, and do more work without filing than other saws, thereby saving in labor and cost of files. They are made of the best quality crucible cast steel, and are

FULLY WARRANTED. For Sale by all Dealers.

Send for Pamphlet, or "Saw Book," mailed free. HENRY DISSTON & SONS, Philadelphia, Pa.

FLORIDA THE LAKE HANCOCK COLONY.

Hancock, Polk County, Florida. On main line Plant System Railway. This tract of 10,000 acres extends from the railroad south to Lake Hancock, one of the most beautiful lakes in Florida, being about five miles long and two miles wide—abounding in choicest fish and the paradise of duck hunters. On each side of a grand boulevard, 100 feet wide, from the depot to Lake Hancock, are farms of twenty acres each, and all the balance of the tract forty acre farms. These lands are beautifully located, being about 200 feet above the sea level and sloping gently south to the Lake. The soil is loamy, and will raise any kind of fruits, grapes, nuts, vegetables, tobacco, berries, as well as oranges, lemons and other semi-tropical fruits. Town Site.—Lots one acre each—no less—\$25 each, cash. Magnolia Ave.—130 ft. wide—20 acre farms, \$10 to \$20 per acre. 40 acre tracts, \$5 to \$10 per acre; 1/4 cash, balance 1, 2 and 3 years. Send for maps and general information. International Homestead Co., 306 Marquette Bldg., Chicago, Ill., or 308 Franklin St., Tampa, Fla. Mention this paper.

Saw Grist Mills, Hay Presses, all kinds of Machinery, new, first-class, CHEAP.

DeLoach Mill Manufacturing Co., 501 Highland Ave., Atlanta, Ga. "Eli" Baling Presses 33 Styles & Sizes for Horse and Steam Power. Hay or Straw 46 inch Feed Opening Bell 63 Power Leverage 64 to 1 STEEL Largest line in the world. Send for Catalog. COLLINS PLOW CO., 1110 Hampshire St., Quincy, Ill. Mention this paper.

Winger's Steel Wind Mill. Mechanically constructed and simple. Awarded World's Fair Diploma and Medal. Galvanized Steel Tanks, Regulators and Grinders. E. B. WINGER, 632 Kenwood Terrace, Chicago.

WE SELL DIRECT TO THE FARMER. Steel Landside Double Board Plow, 16-in. 89. Silky Plows, \$25. Riding Gang Plows, \$35. 3-in. Wagon, \$39. 1000 other articles. Catalogue free. HAPGOOD PLOW CO., Box 487 Alton, Ill.

SUGAR-CANE MILLS and EVAPORATORS. With a full line of Sugar-making Supplies. High-grade goods. Low prices. For full information and prices write the J. A. FIELD MFG. CO., ST. LOUIS, MO.

ERTEL'S VICTOR HAY PRESS. SHIPPED ANYWHERE TO OPERATE ON TRIAL AGAINST ALL OTHERS. GEO. ERTEL & CO. QUINCY, ILL. Mention this paper.

BREAKS ALL RECORDS. Last year we told of a Michigan agent who could walk over 35 adjoining farms, all using Page fence. This year's sales have increased the number to 51, with only one exception. These farmers have known the Page for many years—would they keep on buying if not satisfied it was the best and cheapest? Write us for proof. PAGE WOVEN WIRE FENCE CO., Adrian, Mich. Mention this paper.

MISTAKES ARE EXPENSIVE. To avoid any mistakes on the fence question buy the Keystone Woven Wire Fence. It possesses all the merits of a perfect farm fence. It is strong, durable and handsome. It will turn anything from the smallest pig or lamb up. It is smooth—can't hurt stock. Much more about it in our free book on fence construction. Write today. KEYSTONE WOVEN WIRE FENCE CO., No. 30 Rush St., Peoria, Ill. Mention this paper.

THE STORY OF AMERICAN HEROISM. AS TOLD BY MEDAL WINNERS AND ROLL OF HONOR MEN. THE STORY OF AMERICAN HEROISM. AS TOLD BY MEDAL WINNERS AND ROLL OF HONOR MEN.

CIDER PRESS. The only press awarded medal and diploma at World's Fair. HYDRAULIC. Send for free catalogue and full particulars. HYDRAULIC PRESS MFG. CO. No. 6 Main St., Mt. Gilead, Ohio. Mention this paper.

Steel Wheels. Staggered Oval Spokes. CHEAPEST AND BEST way to get a low wagon. Any size wheel, any width tire. Catal. FREE. ELECTRIC WHEEL CO., Quincy, Ill. Mention this paper.

GOODHUE. We want responsible Agents. Write for what you want and our illustrated Catalogue—FREE. Calvanized Steel PUMPING AND POWER MILLS are acknowledged to be the most powerful and durable; they are self-oiling, direct or back-gear, and have the most perfect governor made. We make Ensilage and Fodder Cutters, Corn Huskers, Corn Shellers, Feed Grinders, Wood Saws, Sweep Powers, Tread Powers, Hay Loaders—full line of anything the farmer needs. APPLETON MFG. CO. 9 Fargo Street, BATAVIA, ILL. Mention this paper.

350 GENTS 14 KARAT GOLD PLATE. AND LADIES CUT THIS OUT and send it to us with your name and address and we will send you this beautiful gold finished watch, by express for examination. You examine it at the express office and if you think it a bargain pay our sample price \$3.50 and express charges and it is yours. It is magnificently engraved and equal in appearance to a genuine Solid Gold watch. A guarantee and beautiful gold plate chain and charm sent free with every watch. Write today; this may not appear again; mention whether you want gents' or ladies' size. NATIONAL MFG. & IMPORTING CO., 334 Dearborn St., B29 Chicago. Will \$500 Help You Out? If so, you can have it! We offer you the Sole Agency for an article that is wanted in Every Home and Indispensable in Every Office, something that SELLS AT SIGHT. Other articles sell rapidly at Double the Price, though not answering the purpose half so well. You can make from \$500 to \$700 in three months, introducing it, after which it will bring A Steady, Liberal Income, if properly attended to. Ladies do as well as men, in town or country. Don't Miss this Chance. Write at once to J. W. JONES, Manager, Springfield, Ohio. MENTION THIS PAPER WHEN ANSWERING ADVERTISEMENTS.

AGENTS WANTED FOR "The Story of American Heroism." The latest and best book on the Civil War. Stories of personal adventure by Uncle Sam's Medal Winners and Confederate Roll of Honor Men, the cream of the Nation's Heroes, who were honored by the government for special acts of bravery; each man tells his own story for the first time. The most thrilling record of personal encounters, captures, hair-breadth escapes and blood-stirring experiences ever published. Reads like a romance. OVER 800 LARGE OCTAVO PAGES; 300 FINE ORIGINAL ILLUSTRATIONS. Narratives by Gen. Lew Wallace, Gen. O. O. Howard, Gen. Alex. Webb, Gen. Fitz Hugh Lee, Wade Hampton, Gen. Bradley T. Johnson, and a score of others equally celebrated. A NEW IDEA, official and authentic—the only book containing the stories of the Medal Winners. Every family will want it. Just out; territory fresh; absolute control of same. Interest people at once; sells where nothing else will. Popular prices and terms to suit the times. Chance for hustlers to make \$50.00 to \$75.00 a week. \$10.00 A WEEK GUARANTEED TO BEGINNERS. Don't wait an hour, but write quick for circulars to AMERICAN PUB. CO., SPRINGFIELD, OHIO.

Potash. Free. Too little Potash in the fertilizer used produces a "scrubby" crop, just as a lack of sufficient grain fed to stock means a "scrubby" animal. An illustrated book which tells what Potash is, how it should be used, and how much Potash a well-balanced fertilizer should contain, is sent free to all applicants. Send your address. GERMAN KALI WORKS, 93 Nassau St., New York. Mention this paper when you write.

Studebaker IS THE LIGHTEST RUNNING AND MOST DURABLE WAGON MADE. Made by practical and skilled mechanics. Thoroughly tested in every climate, the world over. Is yours a STUDEBAKER? If not why not get one and Save Team, Repairs, Time, Money? The Lumber Used is seasoned under cover by the slow process of time, consequently the full strength is preserved. If no agent in your town, write us direct, mentioning this paper, and we will send you free a copy of "Our Old Shop" exquisitely produced. STUDEBAKER BROS. MFG. CO., SOUTH BEND, IND. Mention this paper.

THE FAST WORKING SOUTHWICK HAY PRESS. works equally well with power on incline or level. Well adapted for work at BANK BARNs. Stands up to its work; no digging holes for the wheels. ACTUAL CAPACITY 12 TO 16 TONS PER DAY. Largest feed opening of any Double Stroke Press made. Longest Stroke—4 feet. Short Crank—10 inches. Light Draft. Will turn out from 4 to 6 tons more per day than any press made. Catalogue and Price List Free. SANDWICH MANUFACTURING COMPANY, 125 Main St., SANDWICH, ILLINOIS.

A SMALL THRESHING MACHINE. Something for the farmer, who can do his own threshing, with less help and power than ever before. We also make a full line of Sweep and Tread Powers. The Columbia Thresher has great capacity, and can be run by light power. Send for illustrated catalogue giving testimonials. BELLE CITY FEED AND ENSILAGE CUTTERS. Made in all sizes, for both hand & power use. Send for illustrat'd catalogue and price list. Will send latest publication on Ensilage to all who write for it. BELLE CITY MFG. CO. Bx 55, Racine, Wis.

STEEL. WRITE TO BETTENDORF AXLE CO., 415 1/2 E 31 W. FRONT ST DAVENPORT, IA. LIGHTER THAN WOOD.

FARM UPRIGHT AND HORIZONTAL ENGINES. From 3 H. P. Upward. WITH STEEL BOILERS. Specially adapted and largely used for driving Grinding Mills, Feed Cutters, Wood Saws, Corn Shellers, Dairy Machinery, Saw Mills, Etc. Send for pamphlet and state size power wanted. JAMES LEFFEL & CO., Springfield, Ohio. Mention this paper.

STEEL PICKET LAWN FENCE, steel gates, steel posts and rail, also Field and Hog Fence Wire, single and double farm gates. For further information, write to the UNION FENCE CO., De Kalb, Ill. Mention this paper.

STEEL TANKS. PERKINS STEEL TANKS. Meet all the demands of a strong, durable tank for stock purposes. We make them in all shapes and sizes. They are made from Best Steel Galvanized Free catalog, gives particulars in full. Perkins Wind Mill Co., 8 Race St. Mishawaka, Ind.

HEEBNERS' PATENT HORSE POWER Level Tread Horse Power With SPEED REGULATOR. For 1, 2 and 3 Horses. Ensilage and Dry Fodder Cutter with Crusher. Also Threshers and Cleaners, Feed Mills, Corn Shellers, Drag & Circular Saw Machines, etc. HEEBNER & SONS, Lansdale, Pa., U. S. A. Mention this paper.

WELL DRILLING MACHINERY, MANUFACTURED BY WILLIAMS BROTHERS, ITHACA, N.Y. MOUNTED ON OR SILLS, FOR DEEP OR SHALLOW WELLS, WITH STEAM OR HORSE POWER. SEND FOR CATALOGUE ADDRESS WILLIAMS BROS. ITHACA, N.Y.

FRENCH BUHR MILLS. All kinds farm grinding. A boy can operate and keep in order. 23 sizes and styles. Every mill warranted "Book on Mills" and sample meal FREE. All kinds mill machinery. Floor mills built, roller or buhr system. Get our reduced prices. NORDYKE & MARMON CO. 15 DAY ST., INDIANAPOLIS, IND. Mention this paper.

GRINDER made to attach to any size or make of pumping wind mill, and grind all kinds of grain. A wonderful machine. Also manufacturer of Steel Wind Mills. E. B. WINGER, Station R, CHICAGO.

BICYCLE BARGAINS!!! NEW 1897 WHEELS \$20.00 to \$25.00 1896 & 24 in WHEELS \$5.00 to \$15.00 All Wheels Shipped on Approval. Send for Catalogue and Special Offer. Agents Wanted. W. H. SPURR BICYCLE CO., 327-329 Wabash Ave., CHICAGO. Mention this paper.

SEP 27 1897
DEPT. OF AGRICULTURE



EASTERN EDITION.

Entered at the Post-office at Springfield, Ohio, as second-class mail matter.

VOL. XX. NO. 24.

SEPTEMBER 15, 1897.

TERMS { 60 CENTS A YEAR
24 NUMBERS.

Average circulation for the past six months

310,482 COPIES.....
...EACH...
....ISSUE
AS FOLLOWS

125,150 Copies of the Eastern Edition.
125,157 Copies of the Western Edition.
30,084 Copies of the New York Edition.
30,091 Copies of the Illinois Edition.

With more than 1,500,000 regular readers.

FARM AND FIRESIDE

Holds the undisputed title of

MONARCH OF THE WORLD'S RURAL PRESS.

SEMI-MONTHLIES.

In all America no semi-monthly has credit for one half so large a circulation as is accorded to the Springfield, Ohio, FARM AND FIRESIDE, and the publishers of the American Newspaper Directory will guarantee the accuracy of the circulation rating accorded to this paper by a reward of one hundred dollars, payable to the first person who successfully assails it.—From *Printers' Ink*, May 6, 1896.

assured of a supply of beets before it will build a factory, and there must be a factory near before farmers will raise beets for sugar-making. The business can get a successful start in a community only by harmonious organization and combination of manufacturers and growers.

In this country the greatest difficulty is the agricultural part of the industry. Profitable sugar-beet culture is one of the fine arts of agriculture. In order to be grown successfully the sugar-beet must be grown scientifically. Growers must learn and follow correct methods or fail. It is simply a question of better farming than that which produces the ordinary crops of wheat and corn. Successful sugar-beet culture is a school of agriculture for every locality in which it is established. Farmers learn how much can be accomplished by correct methods of crop culture, and apply the knowledge to every other branch of agriculture. In every locality where the industry has been established the land has at least doubled in value. This season over twenty thousand farmers in different parts of the country are growing beets for tests, which is evidence of an intense interest in the subject.

In a recent address at the Ohio state fair Secretary Wilson said, in part: "Improved transportation facilities have brought the ends of the earth together. The Ohio farmer not only competes with every other farmer in the United States, but the production of grains, meats, etc., in South America, Africa and Asia have a direct bearing upon the prices paid in the United States. Wheat sells higher this year because South American, European and Asiatic crops are not up to the average and because the home market is improving. Cheap food in the United States has been the greatest incentive to manufacturing. The magnitude of farm crops has encouraged railroad and canal building. Inventions have enabled carriers and manufacturers to reduce prices to correspond with the lower prices of farm products. The interests of all classes in the community are inseparably bound together.

"I have been looking over our purchases from foreign countries of things we might produce in the United States, and find that sugar, hides, wool, silk, fruits, tea, wines, live animals, rice, hay, flax, hemp, cheese, eggs, wheat, barley and beans, and other products imported each year cost us over \$382,000,000. We sell cotton, wheat, corn, cattle, lard, bacon, fresh beef, hams, oleomargarine, leaf tobacco, oil-cake and other articles for which we receive nearly \$572,000,000. You see the agricultural products we buy make a fearful hole in the income.

"Great Britain buys \$65,000,000 worth of butter every year and a very large quantity of cheese, but the United States furnishes less than one per cent of the butter. It is the intention of the Department of Agriculture to keep shipping fine butters to England until that people becomes thoroughly satisfied that our butters are as fine as those made anywhere. As soon as we get the way opened for butter we will take up the exportation of cheese. As soon as we have made the British public familiar with our dairy products we will open the markets of continental Europe in this and other lines.

"The American farmer produces too much raw material with which the foreigner makes high-priced products. We send abroad cheap grains to enable the foreigner to make butter that competes with ours in the world's markets. The people of Ohio should not sell a bushel of corn to any other people under the sun. We meet the Danish people in the British market with our dairy products. We furnish them with the cheapest cow feed in the world to enable them to compete with us. It would be much more sensible if the American farmer would turn

his raw material into higher-priced products. Ohio lands are not producing as well as they did ten years ago. There is an absolute necessity for establishing factories on every farm in order to maintain the fertility of the soil. The farm factory will consume all of the grain, hay, grass, fodder, etc., grown on the place. The fertility of the soil will be maintained while the factory is in operation."

STAR POINTER is now the champion of the race-track, and has achieved enduring fame by beating the two-minute mark. At the Readville track, August 28th, against time, he paced a mile in 1:59 1/4, lowering the world's record by 1 1/4 seconds.

Star Pointer is a bay horse, sixteen hands high, weighing about 1,200 pounds. He was foaled in 1889, at Spring Hill, Tennessee, the property of H. H. Pointer. He was sired by Brown Hal, and his dam was Sweepstakes, the dam of Hal Pointer, 2:04 1/2. He was sold when a colt to J. W. Titley, of Pennsylvania. When placed on the track he won nearly all his races, and soon became famous. Winter before last he was sold at auction to Smith & Mills, of Boston, for \$6,500; last winter he was put up at auction in Madison Square Garden, New York, and sold to James A. Murphy, of Chicago, for \$15,000. Before the season is over there will be a race between Star Pointer and the pacing stallion John R. Gentry, 2:00 1/2, and an interesting contest it will be.

A sensation-maker on the track this year is Earthquake Pilot, a pacer without a pilot, owned by D. C. Langford, of Iowa. He has paced a mile in 2:08 1/2 without a driver, and is a great attraction at county fairs.

UNDER date of August 28th "Bradstreet's" says: "The general trade situation continues to improve, and aside from the unnecessarily prolonged strike of the soft-coal miners there is little in sight to cloud the outlook. The feature of the week is the advance in prices of almost all leading staples, beginning with an upward movement all along the line in iron and steel. Steel billets are now \$1.50 above lowest figures, bars \$1.50, rods \$3 and plates \$1. Bessemer pig-iron is up twenty-five cents and foundry a like amount. Southern irons are very strong on a continued active export movement. Where wire-mills have not advanced prices they have withdrawn quotations.

"Some western steel-mills are sold up to January 1st, which, with the demand for earlier deliveries from furnaces than had been arranged for, are quite significant. Lead, too, and soft coal are higher, as is wheat, notwithstanding one or two reactions. 'Bradstreet's' points out that the statistical position of wheat is the strongest known since the United States became a considerable exporter, and that its price, as well as that for bread, is likely to materially exceed the present week's advances. Following that for wheat, prices are higher for wheat-flour, for corn, oats, lard, potatoes, butter, eggs, beans, cheese, leaf tobacco, wool and live stock. Advances for leather, hides, lumber and linseed-oil are also reported.

"Cotton, which is up three sixteenths of a cent, reports the smallest world's stock for seven years past at this period, an improved tone and higher prices for the manufactured product. In spite of crop damage the tendency of estimates is toward the largest total yield on record, but with probabilities favoring much better prices than those obtained for the crop of 1894-95, the output of which was 9,873,000 bales.

"Advances are being also asked for reorders of woolen goods at mills, but print-cloths, petroleum and sugar are unchanged for the week, while pork is reported slightly lower than a week ago. No such general or pronounced upward movement of prices of nearly all leading staples has been witnessed within a week for many years."

WITH THE VANGUARD

In the September 1st number brief comment was made on the superior value of large, heavy seed. In a report on experiments with wheat just received from the Ontario Agricultural College it is stated that large, plump seed sown in the autumn of 1896 produced three and two thirds bushels an acre more than small, plump seed; six and four fifths bushels an acre more than shrunken seed; and forty-two and two thirds bushels an acre more than the seed which had been broken with the machine in threshing. The same number of winter-wheat grains were used in the different selections, and the experiment was conducted in duplicate. With dollar wheat the gain from selection of seed-wheat, according to size and weight of grains, counts up quite rapidly. In these experiments the gain paid well for the time and labor expended, and a good rate of interest on the value of the land besides.

The same bulletin records very satisfactory results in treating seed-wheat for the prevention of smut. It recommends as one of the cheapest and most effective preventives the hot-water treatment, which consists in immersing the seed-wheat for fifteen minutes in hot water, not allowing the temperature to fall below 130 nor rise above 135 degrees Fahrenheit. The treatment not only killed the smut-spores, but increased the yield of grain an acre.

PROGRESSIVE farmers and practical business men are coming to realize that the beet-sugar industry is a good thing. Within the past two months meetings have been held at many places for the purpose of discussing what is at the present time the most promising means of diversifying American agriculture. These meetings are popularly called in the West "sugar-beet rallies." No doubt much good has been done at these meetings, both in the way of disposing of some exaggerated notions about the industry and in giving correct information on the culture of beets, the manufacture of sugar and the probable profits from the business. It is a business in which farmer and manufacturer must work together in perfect harmony. The manufacture of sugar cannot be profitably conducted on a small scale. Capital must be

Our Farm.

SCIENCE AND AGRICULTURE.

HERE has been held recently in the city of Detroit a series of important meetings. This series included the annual convention of the American Association for the Advancement of Science, that of the Society for the Promotion of Agricultural Science, and the American Association of Economic Entomologists. These national organizations received a cordial welcome at the hands of the citizens of Detroit, and the sentiment was well voiced by Mayor Mayberry and ex-Senator Thomas W. Palmer. Among other things the latter said that amid the general scramble for money, place and power which characterizes the present age, it was gratifying to know that there is an increasing number of men and women who are devoting themselves to the pursuit of truth.

Formerly it was considered that there was a conflict between science and religion. Let us hope that that day has long been passed and that the more enlightened public recognizes that religion has to do with the spiritual nature of man and science with physical phenomena.

"What is science?" I have asked the question of many, but have never received a satisfactory answer. Herbert Spencer defines it as the extension of our perceptions by means of reasoning; but he admits that that is not a full definition. I would define science as "the classification of phenomena to the end that principles may be established and declared, from which may be deduced rules of action that shall be applicable to particular cases." "How did science originate?" By extended observations, experience and comparison. The first man who gave a formula for scientific methods was Aristotle, when he declared that "all reasoning must be based on facts." Science is like the blessings of heaven—her benefits fall upon the just and the unjust. She has lifted the poor to comfort and taught the rules of correct living. She has manacled pestilence that stalketh at noonday, and strangled the affit of the sewer. She has declared the laws of sanitation so that he who runs may read. What her future will be no man can foretell, but we know that it will accumulate untold blessings upon the race.

"Wheat Consumption in the United States" was the subject of an address by Prof. Henry Farquhar, of the Department of Agriculture. There is a great difference in the wheat consumed by different nations. France leads with eight bushels for each inhabitant, while Scandinavia and Russia are at the other extreme with from one to one and one half bushels. Great Britain stands next to France, with an average consumption of from five and one half to a little over six bushels per capita. In Canada and Australia the amount is reported very variously, being somewhere near that of Great Britain. In the United States there is great difficulty in collecting data, but the best statistics obtainable show that it is somewhere between five and one third and five and one half bushels per annum for each inhabitant.

Prof. R. C. Kedzie, of the Agricultural College, Lansing, Mich., offered some contributions to methods of testing flour. He said in part: "Michigan millers ask for some method of testing winter-wheat flours applicable for commercial uses. The most natural test is by baking into bread, but this is too slow for commercial purposes, and too much dependent upon the skill of the baker. Doughing the flour and washing out the gluten is also too slow, and in this no account is taken of soluble albumen. The method of testing must eliminate the personal equation and give comparable, numerical results. It must also be rapid and easily used by persons of ordinary skill.

"The testing must also take account of the amount of water absorbed by the flour; the strength or viscosity of the dough, the color of the surface when moistened, and also when dried. In making the test a dough is made composed of one part water to two parts of flour. The strength is determined by the viscometer, by which the resistance of the dough to being forced through an aperture by a constant force is noted, as the resistance to a steel cylinder pressing upon the dough in a tube having an opening one fourth of an inch in diameter.

"Tested in this way the 'patent' flour shows less strength than the 'straight.' It is better for pastry and the latter for bread."

"Progress in Agricultural Chemistry" was the subject of an address by Dr. H. W. Wiley, of the Department of Agriculture, Washington, D. C. He stated that it would not be long before the farmer might apply to the laboratory for particular nitrifying ferments to be applied to the soil where it is needed. The most marked progress has been made along the line of the inoculation of seed and soil with nitrifying ferments, and the results of the experiments are sufficiently encouraging to warrant the belief that much good may yet come to agriculture by following out this line of investigation.

Dr. Salfield, of Hanover, spread upon a peaty soil, which was almost barren, a quantity of soil in which beans, peas and other leguminous crops had been grown. This gave excellent results. Many peaty soils are so deficient in the bacterium which develops nodules on leguminous plants that it requires inoculation with other soils containing it before leguminous crops can be raised.

The commercial name of the preparation to be used for thus fertilizing the soil is "nitratine." This is sometimes used directly on the seeds which are to be sown, which on germinating develop rootlets on which the organisms grow. The best method, however, of applying "nitratine" is to first introduce it in a sufficient quantity of moist earth, which is subsequently stirred from time to time until the organisms have had time to multiply and distribute themselves in great numbers throughout the entire mass. This mass is then applied direct to the field, either by sowing broadcast, or in ordinary drills used in the distribution of fertilizers.

The seeding of the soil with appropriate nitrifying ferments is certain to become as much of an exact science as the use of the proper ferments in making bread or in the manufacture of butter and cheese, in the growing and fermentation of tobacco, and in other commercial operations where the activity of bacteria condition the character and value of the product.

In some notes "Upon the Annual Growth of Timber," Prof. W. R. Lazenby stated that on the farm of the Ohio State University the timber trees that made the most rapid growth were the following named in order: Yellow locust, catalpa (speciosa), black cherry, white ash, black walnut. He regarded the first two as the most valuable in the way of quick returns.

The growing of forest trees and the preservation, improvement and extension of existing woodland is a matter of signal importance to every citizen. The rapid, and oftentimes reckless, destruction of our timber trees, without any effort to restore the loss, is compelling those who come after us to pay for necessary wood and lumber many times the cost at which we might and should have grown it.

This improvidence is beginning to seriously affect our economic conditions. Perhaps we are not justified in saying that our climate has materially changed during the last fifty years. Possibly the average annual rainfall of the different states of the Union is about the same as it was one half century ago. Be this as it may, we are certain that our springs are failing, our creeks and rivers are becoming more and more irregular in their flow, floods are more common and droughts appear to be more frequent, more severe and more protracted. It can be laid down as a general proposition that no tiller of the soil has any moral right to cultivate more ground than he can maintain or increase the fertility of.

As an economic question it is fairly demonstrated that in proportion as the soil degenerates the struggle is against the cultivator. He who continues to work "run-down," exhausted or infertile soil is hopelessly handicapped and cannot compete with the man who tills more fertile acres.

Perhaps we are not yet justified in urging the planting of forest trees for the vague and not well-understood general climatic effect that they may produce, but we certainly are justified in urging forest-tree planting for certain specific purposes. These may be enumerated as follows: (1) For timber, (2) for shelter and protection, and (3) for ornament.

For the first purpose much rough and rugged land, many ravines and steep hillsides, in fact, every acre where trees will grow, that cannot be profitably plowed,

or is cultivated at a loss, should be re-clothed and devoted henceforth and forever to our most valuable varieties of timber trees.

For the purpose of shelter belts of trees should be planted wherever buildings, stock-yards, orchards, gardens, etc., are exposed to cold, sweeping winds.

Under the general head of protection, the banks of streams, ponds, open ditches, etc., may often be so planted with trees that they will be safe from disastrous washings by floods and rapid currents.

Dr. Orten and other eminent geologists make the statement that all soil is on its way to the ocean. Where the surface is level the march of the soil is slow, almost imperceptible, but on all declivities the transfer from higher to lower levels by the rain and melted snows is obvious to all. This is especially the case where the soil is free from vegetation. If covered with trees the washing is but slight.

For whatever purpose it may be planted and grown, we should never forget that a good tree, one that has some exchangeable value, will grow just as thriftily and surely as a poor one. The growing of forest trees is like the production of any other farm crop. Arboriculture, or forestry, is a branch of farming, and is subject to the same laws that govern the growth of other crops. For example, we do not number our grain-fields, orchards and gardens with inferior varieties of grain, fruit or vegetables. It is bad economy. We try to raise the best. It is equally bad economy to allow dogwood, alder, red elm, black oak or other comparatively poor varieties to grow where yellow locust, white ash, hickory, black walnut, catalpa or some other valuable variety can be grown with equal facility. We should see to it that each acre we control produces its best-paying crop, and that no acre becomes the poorer or remains useless.

WILLIAM R. LAZENBY.

EXTRACTS FROM CORRESPONDENCE.

FROM CALIFORNIA.—California is a state of which one is likely to form erroneous ideas if he believes all that he reads about it. There are many favored localities in the southern part of the state especially, and here, if one has plenty of money, he is likely to succeed. The soil is rich, the climate superb, but land is very high. There are some places here where a man can get land by making a small payment and wait until the fruit comes into bearing before paying for the land. Now, however, fruit is worth so little it is not safe to enter into such an arrangement. Orchards must be plowed and kept in as fine condition as a garden, the fruit must be sprayed or sulphured; picking, boxes and packing paid for, commission men and freight charges paid, leaving a very small profit, if any, when the returns come in. There is work to be had on the grain-ranches and orchards, but it is not long in one place, and a man may have to go some distance from home to obtain work, and the life is not an easy one. The climate is delightful in the coast counties, but in the interior the heat is extreme, and the north winds we have here, and some of the other northern counties, are terrible. In growing grain the ground is summer-fallowed, thus producing a crop only once in two years. The average yield is about fifteen sacks an acre; a sack weighing one hundred and forty pounds. Wheat is now \$1.25 a hundred pounds. E. L. L. Esparto, Yolo county, Cal.

FROM NORTH CAROLINA.—A NEW DEPARTMENT IN RAILROADING.—The Seaboard Air Line railroad, of Virginia, the Carolinas and Georgia, has established a department not only new to itself, but hitherto entirely unknown in the history of railroads. This department is called the Industrial Department. Mr. John T. Patrick, for many years commissioner of immigration for the state of North Carolina, and a man well posted in the needs and opportunities of the South, has been placed at the head of this department. Mr. E. St. John, vice-president and general manager of the Seaboard Air Line, a man well known in Chicago and the north central states as a most successful railroad manager, gives it his hearty support. These two facts show that the management of the road means to give its new policy a fair trial. And what is this new policy? Simply to try to help the people living in the territory contiguous to its lines to know more, get more, have more and be more than now. In short, a policy of increasing its own business and value by first increasing the wealth and opportunities of the people. Under the direction of this new department experiment farms are being established, one for each ten miles of the road. Also the means of improving their breeds of stock are provided

free of cost to the farmers. Beyond this a train of cars, to be a traveling school of instruction in the preserving of fruits and in the use of modern farm and dairying machinery, will soon be put on the road. This train will carry the machines themselves, with persons as experts to give instructions in their use. This is all without cost to the people. The knowledge gained by the people through these means will prove not only power, but also wealth. Increased wealth of the people means a larger business for the road. This Industrial department, with its experimental farms, its progenitors of improved breeds of stock, and its traveling training-school, is indeed a new plan. But though new it is wise and must prove a success. OBSERVER.

Pine Bluff, N. C.

Before cold weather sets in again why not go through your outbuildings and see if there are any leaky roofs, any shingles or clapboards coming off, any cracks that need stopping up to make the buildings warm?

Remember your stock will do better if kept warm, chickens grow faster, hens lay more eggs, cows need less grain and give more milk. The best roofing and side-covering to-day is the celebrated *Neponset Waterproof Red Rope Fabric*. It can be used for roofing, covering sides and walls of houses, barns, hen-houses, green-houses, hotbeds, haystacks, wagon-tops, and many household purposes. It is very much cheaper than shingles or clapboards, and while it won't last forever, it lasts a mighty long time. With the necessary nails and tin caps to put it on, it only costs at the factory one cent a square foot. You see, a little goes a long way.

For inside lining use *Neponset Black Building Paper*. It is much cheaper than tarred paper, odorless, clean, economical, water and air tight, and vermin-proof.



Full particulars and samples free. Write F. W. Bird & Son, East Walpole, Mass. For sale by Dealers in Hardware, Lumber, and Building Supplies.

SAVE LABOR
in that most slavish job of cutting off corn by using the
SCIENTIFIC CORN HARVESTER
Those side vines are
ligned. SAFETY
SHAFTS. ADJUST-
ABLE
SAFETY
SEATS.
Cuts any de-
sired height.

SAVES LABOR
SAVES CORN
SAVES MONEY

It meets every requirement of a machine corn cutter at a price that places it within easy reach of every farmer. Send for catalogue and price.
THE FOOS MFG. CO., SPRINGFIELD, OHIO.

SOLD!
UNDER A Positive Guarantee

to wash as clean as can be done on the washboard, even to the wristbands and collar of the dirtiest shirt, and with much more ease. This applies to Terriff's Perfect Washer, which will be sent on trial at wholesale price. If not satisfactory, money will be refunded. Agents wanted. For exclusive territory, terms & prices, write **Portland Mfg. Co., Box 4, Portland, Mich.**

17c. PER ROD Is all it costs to build the best Woven Wire Fence on earth with our Automatic Machine. We sell the Famous **COIL SPRING WIRE**. CATALOGUE FREE. KOKOMO FENCE MACHINE CO. Box 67, Kokomo, Ind.

NATIONAL DEBTS OF THE WORLD.

It is a well-known paradox that a country cannot be prosperous without a certain amount of national debt. This may be disputed, but it is certain that hardly a civilized nation is to be found to-day without the burden of national debt.

The growth of national debts can be seen from the following table, in which the figures for twenty years ago are given in the first column, those for to-day in the second column:

Table with 3 columns: Country, 1875 Debt, 1896 Debt. Includes France, England, Austria-Hungary, Russia, Italy, United States, Spain, Germany, Australasia, Turkey, Portugal, India, Brazil, Egypt.

Rather remarkable is the increase of debt in Australasia, especially over against the repeated statement of Great Britain that its loyal colonies enjoy a higher degree of prosperity than do those that have become independent.

One reason for the enormous increase of national debts is probably the fact that money is now much cheaper than it was twenty years ago. At present the total sum of interest to be paid on national debts is \$1,115,000,000, while twenty years ago it was \$1,000,000,000.

The practice of grinding feed, and in many sections steaming and cooking the same, is rapidly growing in favor with the most progressive farmers. This necessitates the use of some good, reliable power, as well as some means for steaming or cooking the feed.

FARM POWER.

The practice of grinding feed, and in many sections steaming and cooking the same, is rapidly growing in favor with the most progressive farmers. This necessitates the use of some good, reliable power, as well as some means for steaming or cooking the feed.

DECADENCE OF THE MEDIEVAL TRADES-UNIONS.

The moral havoc wrought by these monopolies was greater even than the industrial havoc. It crushed all feelings of justice and humanity, making its victims more grasping and cruel than Shylock; it led them to the practice of every trick and deception of a Newgate sharper to evade the laws; it stirred up a contention that rivaled the quarrels of the Guelphs and Ghibellines.

KEGS OF ONIONS THE WEAPONS.

Shortly before the Revolution, when the air was heavily charged with forebodings of the approaching struggle, old Major Putnam happened to be in Boston. The major disliked the redcoats, and sometimes inveighed against their arrogant superciliousness in no gentle terms.

CRIME INCREASING.

People do not realize how the tide of criminality is rising in this country. According to the census reports, we had one prisoner behind the bars for every 3,442 of population in 1850.

HOBSON'S CHOICE.

The meaning of the above proverbial expression is explained by the following reputable account of its origin: Tobias Hobson was a carrier at Cambridge in the seventeenth century. He kept a livery stable and insisted upon the students, who were his most generous customers, taking his hacks in consecutive order.

CONSUMPTION CURED.

An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections.

ONLY RECENTLY A POOR FARMER.

Clarence J. Borry is the Barney Barnato of the Klondike. He took \$130,000 from the top dirt of one of his claims in five months. He kept it all but \$22,000, which he paid to his miners. He did not have to give his wife even so much as pin-money. She had a

THE NEW TEN.

Matrimony has ten commandments. These were studied out by Theodore Parker shortly before the day of his wedding. They took the form of ten beautiful resolutions, which he inscribed in his journal. They are as follows:

- 1. Never, except for the best reasons, to oppose my wife's will.
2. To discharge all duties for her sake freely.
3. Never to scold.
4. Never to look cross at her.
5. Never to worry her with commands.
6. To promote her piety.
7. To bear her burdens.
8. To overlook her foibles.
9. To save, cherish and forever defend her.
10. To remember her always in my prayers. Thus, God willing, we shall be blessed.

EXCUSED.

A pleasant story of her youth is told by an old lady whose early home was in Concord, Mass. She was on her tardy way to school, crying in anticipation of disgrace and possible punishment, when a deep voice by her side said: "What is troubling you, my child?"

- ARMSTRONG & McKELVY Pittsburgh.
BEYMER-BAUMAN Pittsburgh.
DAVIS-CHAMBERS Pittsburgh.
FAHNESTOCK Pittsburgh.
ANCHOR Cincinnati.
ECKSTEIN Cincinnati.
ATLANTIC New York.
BRADLEY New York.
BROOKLYN New York.
JEWETT New York.
ULSTER New York.
UNION Chicago.
SOUTHERN Chicago.
SHIPMAN Chicago.
COLLIER St. Louis.
MISSOURI St. Louis.
RED SEAL St. Louis.
SOUTHERN Philadelphia.
JOHN T. LEWIS & BROS CO Philadelphia.
MORLEY Cleveland.
SALEM Salem, Mass.
CORNELL Buffalo.
KENTUCKY Louisville.

WHATEVER is worth doing, is worth doing well. Painting can only be done well by having the best materials—Pure White Lead and Pure Linseed Oil, properly applied. There is nothing else "just as good." Avoid "mixtures" and unknown brands of White Lead—the "sold-for-less-money" sort. (See list of the genuine brands.)

FREE By using National Lead Co.'s Pure White Lead Tinting Colors, any desired shade is readily obtained. Pamphlet giving valuable information and card showing samples of colors free; also cards showing pictures of twelve houses of different designs painted in various styles or combinations of shades forwarded upon application.

National Lead Co., 1 Broadway, New York.

40 VALUABLE BOOKS FREE

A Most Extraordinary Offer!

Wishing to introduce our 16-page illustrated semi-monthly Farm and Home, which is now read in over 250,000 homes, into every home where it is not at present taken, we make for a limited time the following special and extraordinary offer:

For only 36 cents, we will send Farm and Home one year (24 numbers), and to every subscriber we will also send free and postpaid Forty Valuable Books, as follows:

- Wonders of the World. Contains descriptions and illustrations of the most wonderful works of nature and of man. Very interesting and instructive.
Gulliver's Travels. The remarkable adventures of Lemuel Gulliver among the Lilliputians and Giants.
Longfellow's Poems. No one can afford to be without this collection of poems by the master of American poetry. Illustrated.
Ladies' Fancy Work. Containing directions for making many beautiful things for the adornment of home. Illustrated.
Familiar Amusements. A large collection of Acting Charades, Parlor Dramas, Shadow Pantomimes, Games, Puzzles, etc.
The Aunt Keziah Papers. By Clara Augusta, author of "The Rugg Documents." A ridiculously funny book.
Manual of Floriculture. Teaches the best method of propagating all the different plants. Illustrated.
Perfect Etiquette; or, How to Behave in Society. A complete manual for ladies and gentlemen, giving the correct rules of deportment for all occasions.
The Standard Letter Writer for Ladies and Gentlemen, a complete guide to correspondence, giving plain directions for the composition of letters of every kind.
Popular Recitations and Dialogues, humorous, dramatic and pathetic, including all the latest and most popular.
Lady Falgout's Diamonds. A Novel. By "The Duchess."
A Bride from the Sea. A Novel. By Charlotte M. Braeme.
The Mystery at Blackwood Grange. A Novel. By Mrs. May Agnes Fleming.

The above books are published in neat pamphlet form, many of them handsomely illustrated, and they are printed from clear, readable type on good paper. Each book contains a complete first-class novel, or other work, by a well-known and popular author, published in the handiest and most convenient form for reading and preservation. It is not a large number of novels or stories bound together in one book, but Forty separate and distinct pamphlet books.

OUR GREAT FREE OFFER: The regular price of these books is \$2.00, but for the next 30 days we will send not one, or ten, but the whole forty splendid books by mail, postpaid, to everyone sending 36 cents in silver or stamps for one year's subscription to Farm and Home. As the regular price of Farm and Home is 50 cents, we thus offer you \$2.50 in value for only 36 cents. Do not delay or fail to take advantage of this offer, for never before has so much been offered for so small a sum.

Address, mentioning this paper, FARM AND HOME, Springfield, Mass., or Chicago, Ill.

JOHN SHERMAN'S FIRST MEETING WITH LINCOLN.

Secretary Sherman says he never will forget his first meeting with a president. It was shortly after Lincoln's inauguration, and he attended a public reception, fell into line, and waited an hour or two for a chance to shake hands with the great emancipator.

"During this time," says Mr. Sherman, "I was wondering what I should say and what Lincoln would do when we met. At last it came my turn to be presented. Lincoln looked at me a moment, extended his hand, and said: 'You're a pretty tall fellow, aren't you? Stand up here with me, back to back, and let's see which is the taller.'"

"In another moment I was standing back to back with the greatest man of his age. Naturally, I was quite abashed by this unexpected evidence of democracy. 'You're from the West, aren't you?' inquired Lincoln. 'My home is in Ohio,' I replied. 'I thought so,' he said; 'that's the kind of men they raise out there.'"

Chicago Times-Herald.

THE NEW TEN.

- 1. Never, except for the best reasons, to oppose my wife's will.
2. To discharge all duties for her sake freely.
3. Never to scold.
4. Never to look cross at her.
5. Never to worry her with commands.
6. To promote her piety.
7. To bear her burdens.
8. To overlook her foibles.
9. To save, cherish and forever defend her.
10. To remember her always in my prayers. Thus, God willing, we shall be blessed.

ONLY RECENTLY A POOR FARMER.

Clarence J. Borry is the Barney Barnato of the Klondike. He took \$130,000 from the top dirt of one of his claims in five months. He kept it all but \$22,000, which he paid to his miners. He did not have to give his wife even so much as pin-money. She had a

pan of her own. She would occasionally get time from her sewing and mending to drop around to the dump. She sifted out \$10,000 or so in her spare moments. This was her amusement in the strangest year's honeymoon that is recorded. The two started fifteen months ago as bride and groom. She was the devoted sweetheart of a poor Fresno farmer. They have returned to San Francisco with all kinds of gold-dust, nuggets and coin. They have millions in sight, and behind the millions is a pretty romance.

CRIME INCREASING.

People do not realize how the tide of criminality is rising in this country. According to the census reports, we had one prisoner behind the bars for every 3,442 of population in 1850. In 1890 the ratio had risen to one in 757. By this time it is probably one in 500. Statistics showed a year ago that in my own state of Massachusetts one in every 225 inhabitants over sixteen years of age was in prison, mostly young men. The floating criminal population in this country, in and out of jail, is estimated at three quarters of a million.—D. L. Moody, in Sunday-school Times.

HOBSON'S CHOICE.

The meaning of the above proverbial expression is explained by the following reputable account of its origin: Tobias Hobson was a carrier at Cambridge in the seventeenth century. He kept a livery stable and insisted upon the students, who were his most generous customers, taking his hacks in consecutive order. Hence arose the term, "Hobson's choice;" meaning "this or none." Milton has some feeling verses on "The University Carrier," beginning: "Here lies old Hobson; death has broke his girt."

CONSUMPTION CURED.

An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES, 520 Powers' Block, Rochester, N. Y.

Our Household.

ONLY SIX MONTHS MORE.

Six months from now I shall pay all bills; Of this there can be no question. And I'm sure that about that time I'll be Relieved of this indigestion.

Six months from now in the bank I'll place The cash that I've been saving. For by that time I am sure I'll be A way to fortune paving.

Six months from now, or about that time, I shall quit the habit of smoking, And that is the time my life will be A continual round of joking.

That is the time (six months from now) When I shall not have to hurry. All things being adjusted, why, then There'll be no cause for worry.

Six months from now! Oh, glorious time! Am I impatient? Never! For this glorious time I'll wait and wait, If I have to wait forever.

HOME TOPICS.

PUMPKIN PIE.—Cut the pumpkin into halves, then into slices; peel, cut up into pieces about two inches long, and pack them in a steamer. Set the steamer over boiling water. When the pumpkin is tender, so it can be easily pierced by a fork, drain all the water possible from it, put the pumpkin into a preserving-kettle, and set it on the back part of the stove where it is not very hot. Let it cook here until it is quite dry, stirring it often to prevent scorching, and then rub it through a colander. It is best to cook the pumpkin the day before you wish to make pies. It will keep several days in a cool place. To a pint of the sifted pumpkin take three eggs, a teaspoonful of sugar, a half teaspoonful of cinnamon or allspice, ground, a half teaspoonful of ginger and a half teaspoonful of salt. Beat these together to a cream, and then add a quart of milk. Line the pans with a good but not very short crust, fill with the prepared pumpkin, grate a little nutmeg over the top, and bake until the pie is firm in the center.

POISONOUS PLANTS.—It is a lovely time of the year to be out of doors, in the fields and woods, but one should be on the lookout for poisonous plants, as the results from handling them are often quite severe. Poison-ivy, or poison-oak, as it is sometimes called, and poison sumac, or dogwood, belong to the same family. The poison-sumac is a shrub, growing from six to eighteen feet high. The stem is smooth, or nearly so, and the leaves composed of seven to thirteen thin leaflets. It grows in moist, swampy places. The poison-ivy climbs by rootlets over rocks or up the sides of trees. It is easily distinguished from the Virginia-creeper, as it has three leaflets, while the Virginia-creeper has five. The leaflets of the poison-ivy are rather downy underneath, and are sometimes variously notched and sometimes entire. Some people are particularly susceptible to the poison of these plants, so much so that the effluvium will cause poi-

prevent bad effects even when one has touched a poisonous plant. It is wise to take this precaution whenever one has been where the plants might be. The best remedy I have ever tried for the irritation produced by these plants is to bathe the affected parts with a mixture of soap liniment and oil of sassafras, which any druggist can prepare. I have been told that simply bathing the affected parts with water as hot as it can be borne, and repeating it every hour or two, will allay the intolerable itching, stop the spread of the inflammation, and effect a cure in a day or two. This would certainly be worth a fair trial. MAIDA McL.

LETTER-BOX.

That is an unlucky person who does not collect in his lifetime a few choice letters which he wishes to cherish as he would the ashes of a dear friend. A lady told me recently that she found the letter which her father wrote to his wife's parents announcing the birth of a little girl, and that little girl was herself, now grown to be middle-aged. Imagine how she felt as she perused those pages! Such a letter

person who sees a well-executed piece must fall in love with it. The trouble with most of the carvings illustrated is the fact

life might be saved, many a "mysterious providence" averted, if only a little more common sense were used in the care of the



as that is worth keeping, and love letters from the man you married, or from those you did not. A beautiful casket is worthy

part of the page our editor has allowed a life-sized representation of the top of this exquisite box. It is of chip-carving, with all the variations allowed by this the simplest branch of wood-carving. In drawing the design upon the wood the nicest accuracy must be observed. A pair of compasses is necessary in getting the circles exact.

This casket, lined with velvet and finished with a brass lock, will be a thing of beauty from generation to generation and a joy to all who appreciate true art. K. K.

LINEN AND BRAID CENTERPIECE.

Where one cannot embroider well it is best to keep to plain sewing; and in this combination of braid and linen every one could accomplish a beautiful decorative piece of work. To form the squares baste another piece of the material on the main piece, and hemstitch all around the edges, and then put on the braid decorations. It must first be basted and then sewn firmly down, gathering it at places where turns or curves must be made. If only a corner is done in this manner it makes a very pretty centerpiece.

TWO MOTHERS.

That many a baby suffers tortures at the hands of an ignorant young mother or a careless nurse no observant person can deny, and this is particularly so during the long, hot days of summer. Many a child's

baby, who cannot speak to tell of its needs or feelings, and who, if it cries, is jolted, patted or dosed, when nine times out of ten a little sensible attention, such as an older person would appreciate, is all it requires.

We call to mind one young mother and her six-months-old babe, who, though very fleshy, was well and good-natured all the summer, although the season was a long and trying one. His clothing consisted of the thinnest of all-wool skirts, low-necked and short-sleeved, but long enough to come well down over the abdomen, napkin, and short, loose slip or wrapper of light-weight tennis-flannel. If the mornings or evenings were cool a light flannel or tennis flannel skirt was added.

The mother sensibly forbore holding him any more than was absolutely necessary, but taught him to lie much of the time on a folded comfort on the floor. Occasionally, when the afternoons were particularly hot, his little slip was removed, and he rolled and kicked in perfect comfort attired only in napkin and shirt.

The greatest of care was taken with his bottle to keep it perfectly clean and sweet, and during the entire hot season he was fed nothing but pure, perfectly sweet milk, diluted according to the doctor's directions. His bottle was given him as he lay upon the floor, so he was spared the warmth of the mother's body while eating; and when he went to sleep he was left on the comfort on the floor, with a square of tennis-flannel thrown over him, and awakened refreshed and happy; not hot, perspiring and cross, as is so often the case. His daily bath was never omitted, and if a change in temperature came suddenly, as it so frequently does during the summer, his clothing was immediately attended to, so that he was never allowed to become chilled nor warm enough to perspire unduly. Although he cut several teeth during July, August and September, he was well and happy, and his mother by her wise treatment and rare good sense saved herself much overwork and worry and was able to enjoy her baby all the time.

Not far away was another mother whose baby was about the same age, and who cried, fretted and worried the most of the time. It was attired through all that hot summer in a long-sleeved flannel shirt, such as it had worn during the winter, a flannel skirt and muslin dress, and as a consequence was constantly broken out with the heat, which every drop of perspiration irritated, and every movement of its little body increased the chafing of its close-fitting, heavy shirt. For hours at a time would the mother rock it or walk the floor holding it closely clasped in her arms, in her vain endeavors to quiet its plaintive wails, the warmth of her body only increasing its discomfort. When tired nature brought forgetfulness in sleep, it was put to bed in a closed room, covered with a crocheted afghan, "for fear of drafts," and the mother could not understand why baby slept so little and awakened so cross and fretful.

When remonstrated with for keeping it so warmly dressed, she replied that baby was so delicate and took cold so easily that she must keep it warmly dressed, and could not be made to understand that excessive clothing weakened the entire system. Finally the little thing became so enervated that it could stand the strain no longer; its whole system becoming debilitated and its digestive organs weakened in sympathy, and during the early



soning when merely passing near them. Sometimes immediate washing with hot, strong soap-suds or ammonia-water will

to enshrine these precious relics. I have often expressed enthusiasm for objects made of carved wood. It seems that every

days of September it fell a prey to bowel trouble, and in three days' time passed away, leaving the mother's heart desolate as she bewailed the strange dealings of Providence.

Should another little life be placed in her keeping, it is to be hoped she will carefully study its needs and requirements, and learn in time that too often a mother's ignorance is more responsible for a baby's demise than the dealings of a "mysterious Providence." CLARA S. EVERTS.

DRESS FOR ELDERLY WOMAN.

Too many women when they get into middle life begin to think themselves too old to dress. As age approaches your dress should take on a more elegant look in the way of material, while you can select a quieter style of making it. The one we illustrate is of heavy black satin,



the perfectly plain skirt relieved by the panel in front of black velvet ribbon over cream-white satin and edged with heavy jet. The waist, of cream-white Liberty silk or satin, accordion-pleated, with a corselet of black satin, and shoulder-collar and revers trimmed with the jet. Two costumes could be made of this by having a black pleated silk waist also, and when that is worn leave off the white trimmings.

HOME DRESSMAKING—SKIRT-MAKING.

Handle the sections of the skirt carefully after cutting, as the bias edges stretch easily. Baste the seam of the skirt with rather short stitches, beginning at either bottom or top, but always with that section which has the most bias edge uppermost or toward the sewer. If the pattern is all right, and the cutting has been carefully done, the seams will come out even both at top and bottom. Seam with the machine, laying a strip of lining selvage uppermost on all bias seams, the raw edge of the strip coinciding with the raw edges of the sections being seamed. This stay-strip need not be basted, but should be carefully held in place while seamed. Seams should be true and straight, as defects are sure to be seen if they are made. Finish seams by over-casting edges of each section, so that the seams may be pressed open.

Press all seams very carefully, being sure that the sections do not lie slack while the seam is being pressed, as there may be a crease pressed into the skirt near the seam.

Finish the placket on one side of the opening with a fly, and on the other with a facing of the dress material. The band of the skirt should be of such a length as to allow the skirt to lap only over the fly. Put a pocket in a convenient seam with a tape attached to the upper inside corner. Fasten the other end of the tape to the top edge of the skirt, in such a place that the weight of the pocket will be on the tape, not on the seam.

Gather or pleat the top of the skirt at the back, adjusting it to the facing of the band and basting securely in place. Try on the skirt and make any necessary changes. If required, put in elastic to prevent back fullness falling forward. Baste on the outside of the band and seam. Take out band-bastings and turn in edges of both outside and inside of band and baste together. Stitch both edges of the band. Very narrow bands are most convenient, being easily hidden by the narrow

belts now in vogue. On the fly end of the band put two eyes; one on the extreme end, the other about two inches from the end, just at the edge of the fly where it joins the skirt. Place hooks to correspond on the other end of the band.

Two hooks may be sewn on the outside of the band for belt-securers, or to hook into eyes on the inside of waist at the back.

Item a facing of lining over the pressed open seam at the bottom of the skirt, to cover the raw edges of the haircloth stiffening. Face the bottom with a strip of velveteen, allowing the facing to show on the right side as a piping, not a binding. Press the skirt throughout on the wrong side, put tapes on the band with which to hang the skirt away, and the skirt is complete.

If canvas stiffening is used, it should be seamed separately, the velveteen stitched on as a facing to the right side of the stiffening. Then apply the stiffening as a facing, allowing a piping of the velveteen to show on the outside of the skirt. LUCY C.

HOUSEHOLD ITEMS.

"One of the household ambitions of my life has been to be able to purchase cheese-cloth by the bolt," said an energetic, tidy housekeeper to me one day when we were discussing topics of home nature in general. "I would like an unlimited supply of it, for dish-cloths, tea-towels, dust-rags and uses too numerous to mention. It is such a ready absorbent, washes so easy and keeps so white. Why, its uses are legion. But at four and five cents a yard I have never felt justified in using it as prominently as I would wish."

In reality there is nothing nicer for the many uses mentioned, and many more. Long curtains of it were once a part of an unpretentious little dining-room furnishings, and having done service there for three seasons, the cloth was utilized in various ways, and we readily echoed the wish that we might have it by the bolt.

A fairly good substitute for cheese-cloth is the sugar-sacks that may be had at any grocer's at the rate of two for five cents. They are usually picked up pretty close, though, and to get them it becomes



necessary to leave an order for a certain number to be saved. There is more than a square yard of cloth in each sack, and in weave it is very like cheese-cloth. It soon bleaches out white, and is a very desirable kitchen and dining-room article. Housekeepers often make from these sacks very pretty white aprons for "tea-time" wear, or aprons to use while baking. We buy a number of them every season, and find uses innumerable for them. Our supplies of granulated sugar come to the grocers put up in this sacked form, and housewives are so generally coming to know of them and their merits as a household article that it is many times impossible to get them.

IVORY SOAP advertisement. It floats. Divide a cake with a stout thread and you have two perfectly formed cakes of convenient size for the toilet. THE PROCTER & GAMBLE CO., CINTI.

Wash-day is losing much of the dread that came with it since we adopted the plan of having small washings and more of them. Incompetent help is the rule rather than the exception. Girls lack executive ability and the good judgment and management that is necessary to the successful running of the wheels of the household machinery, and the work is sure to drag unless the mistress of the home is herself right at the helm every hour of the day. It not infrequently happens that the mistress is otherwise engaged much of her time, and doubtless physically unable to be always at the post of supposed duty. She has then to manage the best she can, and new ways are resorted to for lessening and hastening the work along. Wash-day became a dread day in reality, for though neither strong enough to be in the kitchen and laundry nor having the time to spare from other duties, it was an absolute necessity that we spend the better part of the forenoon there, if the weekly washing was out of the way before dark. Nor were the washings large with but three in the family. Mismanagement, slow motions and partial indifference would account for it all. But we worked a change that has somewhat revolutionized all this. Every morning, or second morning at the farthest, a small tub of suds is prepared and the soiled articles of clothing are washed out. They are run from the suds into scalding water, rinsed in cold water, and dried. Many things require no further washing, and are ready for use again. White shirts, skirts, fine table-cloths and napkins and all such articles are folded when dry, and when wash-day comes they are ready to be put into the boiler with a cold suds to start them, scalded and rinsed, when they are white and ready to be laundered. Fifteen or twenty minutes each day suffices to wash all the articles that have accumulated, and a general wash-day need not then come nearly so often. Kitchen towels, every-day underwear, colored shirts and aprons and dresses are quickly washed out, and the every-day napkins and doilies are soon ironed and out of the way again. Many such doilies are in use, and by covering the entire top of the table with them a white cloth may be made to do service and be kept clean for many days, and the table looking fresh and neat as well. Enough starch to give gloss and firmness is added to the last cold rinse-water for table-cloths and doilies. The kitchen aprons and dresses, roller-towels and tea-towels, underwear and all such common articles of the wash are not ironed. Time, strength and fuel are saved, all to be employed to a better purpose.

To keep ants out of the lard-jar we found a very difficult undertaking. They have a particular penchant in that direction, and pounds of lard have been ruined through their depredations. Taking the jars to the darkest corner of the cellar produced no effect. But when the jars were set into the wash-tubs, each tub supplied with a pail of water, we had no further trouble with the ants. When the tubs are needed they are placed upon the cellar bottom for the few hours that the tubs may be in use, when they are again set into the water and jars covered with paper and plates to keep out the dust. Other articles of food of which the ants are particularly fond may be placed in safety on the covered jars.

All the milk except the home supply, which is small, is sent to the creamery daily. The amount kept at home is put into a glass fruit-can, the can slipped into a clean cloth sack made for the purpose, well wet with cold water, then slipped down into the house well-water cistern until the bottom of the jar and cloth touches the water. A broad cloth string pieced together from new strips of muslin is pinned to the sack. The milk keeps cool and sweet and raises cream for tea and berries.

More cream being needed, it is taken from the night's milk in the creamery-can, and put into the cistern as is the can of new milk. Butter is put into an earthen dish, covered over with a thin cloth deep sprinkled over with barrel-salt, covered with another cloth and papers, and also hung in the cistern. A refrigerator would be preferable, but that is among the things to be in the "good time coming." A refrigerator and ice-house should be among the farm belongings of every farm, and when they come to this one we are confident that the participation will be in every respect equal to the anticipation. ELLA HOUGHTON.

Linene Reversible Collars and Cuffs advertisement. ARE NOT TO BE WASHED. Made of fine cloth in all styles. When soiled, reverse, wear again, then discard. Ten collars or five pairs of cuffs for 25 cents. They look and fit better than any other kind. ASK THE DEALERS FOR THEM.

PATENTS LEHMANN, PATTISON & NESBIT, Washington, D. C. Examinations Free. Send for circulars. TYPEWRITER HEADQUARTERS, 102 Fulton St., New York, sell all makes under half price. Don't buy before writing them for unprejudiced advice and prices. Exchanges. Immense stock for selection. Shipped for trial. Guaranteed first class. Largest house in the world. Dealers supplied. 62-page illus. cat. free.

SHORTHAND advertisement. Bookkeeping; Mechanical and Architectural Drawing; Machine Design; Stationary, Marine and Locomotive Engineering; Architecture; Railroad, Municipal, 31 COURSES & Bridge Engineering; Surveying and Mapping; Sheet Metal Pattern Cutting; Plumb'g; Electricity; Mining; Metal Prospect'g; English Branches. All who study GUARANTEED SUCCESS. Fees Moderate, Advance or Installments. Circular Free; State subject you wish to study. International Correspondence Schools, Box 859 Scranton, Pa. Mention this paper.

SAVE 1/2 YOUR FUEL advertisement. By using our (stove pipe) RADIATOR. With its 120 Cross Tubes, ONE stove or furnace does the work of TWO. Drop postal for proofs from prominent men. TO INTRODUCE OUR RADIATOR, the first order from each neighborhood filled at WHOLESALE price, and secures an agency. Write at once. ROCHESTER RADIATOR COMPANY, 3 Furnace St., ROCHESTER, N. Y. Mention this paper.

\$12 3000 BICYCLES advertisement. Must be closed out at once. Standard '97 Models, guarant'd, \$14 to \$30. '96 models \$12 to \$20. 20 hand wheels \$5 to \$15. Shipped to anyone on approval without advance deposit. Great factory clearing sale. EARLY A BICYCLE by helping advertise us. We will give one agent in each town FREE USE of a sample wheel to introduce them. Write at once for our Special Offer. E. G. MEAD CYCLE CO., Wabash Ave., Chicago, Ill. Mention this paper.

High Arm TRY IT FREE advertisement. for 30 days in your own home and save \$10 to \$25. No money in advance. \$30 Kenwood Machine for \$28.00 \$50 Arlington Machine for \$49.50 Singers (Made by us) \$8, \$11.50, \$15 and 27 other styles. All attachments FREE. We pay freight. Buy from factory. Save agents large profits. Over 100,000 in use. Catalogue and testimonials free. Write at once. Address (in full), CASH BUYERS' UNION, 158-164 West Van Buren St., B-7, Chicago, Ill. Mention this paper.

ISAAC THOMPSON'S EYE WATER advertisement. If afflicted with SORE EYES, USE ISAAC THOMPSON'S EYE WATER.

Our Household.

THE FLOWN BIRD.

The maple leaves are whirled away. The depths of the great pines are stirred; Night settles on the sullen day. As in its nest the mountain bird. My wandering feet go up and down. And back and forth, from town to town, Through the lone woods, and by the sea, To find the bird that fled from me. I followed, and I follow yet; I have forgotten to forget.

HOW TO GROW A PALM, AND THE CARE OF IT.

UNLESS you have a large stock of patience, and a fondness for experiment, I would not advise any one to try to grow palms from seed. I have known the seeds of certain palms to lie in the ground for more than a year before sprouting.

It is far better to purchase a small palm of the variety you admire, and grow that to the desired size. I bought one less than two feet high from the florist, and in three years disposed of it as being too inconveniently large for the house. Their culture is the simplest thing in the world, and as they grow the year round, it is sometimes necessary to check or dwarf them to keep them a nice size for the house. The varieties most common for house culture are Areca lutescens, Livistona sinensis, or fan-palm, Raphia flabelliformis and the several varieties of the date-palm, of which latter family Phoenix rupicola is rather the most graceful, on account of its long and finely pinnate leaves, but P. tennis and P. canariensis are handsome and more commonly grown than rupicola.

Having selected your palm and taken it home, examine it, and if it needs repotting, do it at once in a rich fibrous soil that contains plenty of sand; and pray do not commit that common fault of the amateur of putting a two-foot palm in a pot the size of a small tub. I think persons who commit this error hope that by giving plenty of room from the start they will save themselves the trouble of repotting the plant for several years to come. But the soil is apt to grow sour or lose its strength from the frequent waterings, and it is always a bad plan to have a plant in a pot too large for its needs. It is inharmonious. Plants do not love a misfit any better than human beings. Give your palms plenty of water. In India they have a saying that the cocoanut-palm will not live away from the sound of the sea-shore. The idea is poetically beautiful, but I think the water filtered through the sand is at the root of the saying as well as at the roots of the trees, and without doubt accounts for the milk in the cocoanut. Palms, as well as all other potted plants which require much water, are best kept wet by putting a plate under the pot, which serves a double purpose, keeping the water at the root of the plant and off your carpet.

In winter palms will stand all the sunshine they can get. In summer put them outdoors, under a tree if possible, where

think the real secret of keeping a palm steadily growing is frequent doses of weak liquid manure, say a pint once a week.

To dwarf a palm or keep it a desirable size for the house, simply allow it to become pot-bound, and keep it alive and green by liquid manure and top-dressings of rich soil.

So many people regard palms merely from a decorative point of view, utterly ignoring any claims they may have to sun, air and water. They place them where they will best ornament their rooms, regardless of light and air, and when they shrivel and turn yellow at the points of the leaves, wonder why palms are so difficult to grow, and why they do not retain the brilliant green they had when bought at the florist's. Nine tenths of the palms bought die of thirst or are smothered to death in close rooms.

Use your palms to decorate the nooks and corners and halls by all means, but do not keep them in such places all the time. Give them a warm half-shady position in summer, for while they love the sun, and to a certain degree it is beneficial to them, it is apt to burn holes in the leaves, especially if they are watered while the sun is shining on them. The heat of an ordinary living-room is warm enough for their winter growth, if it does not get below the freezing-point at night.

In conclusion treat your palms reasonably, and they will grow and live as long as you can give them room without taking off the roof.

JESSIE M. GOOD.

INITIALS.

There is always a charm to me about household linens, blankets and towels



marked with initials. When quite small I was obliged to learn cross-stitch lettering upon a sampler. We have always used it, and I like it. The deftness comes by long practice. At first you would have to learn upon a piece of canvas, and draw out the threads after it is done. Always use colors that will wash well. With the wash-silks of to-day one has quite a range of colors. Table-linen worked in outline-stitch in white wash-silk looks daintier than colors; but if a color is preferred, pale yellow always looks and washes well.

A few such things marked with your maiden initials will look well in your hatching-chest; and these things should be the outgrowth of years, as it is too much work and too much expense to buy all these household treasures at once. So, girls, sometimes deny yourself a ribbon or an ornament, and put the price into something for your future homes.

CHRISTIE IRVING.

CANNING CORN.

EDITORS FARM AND FIRESIDE.—Seeing your request for a recipe for canning corn, will send you one I have used with satisfaction for years. To every six quarts of corn take one ounce of tartaric acid

dissolved in boiling water; add the acid while the corn is cooking. Can in glass cans as you would fruit.

To prepare for the table, pour off the sour water, keeping a little of it, cover the corn in fresh water, let stand a few minutes, and put over the fire; and to one half a gallon of corn add one small teaspoonful of soda and two of sugar, and let it boil. If it still is sour, add a little more soda; but if it turns to yellow instead, add enough of the sour water to bring to its natural color and taste; season as you

prefer. While the cooking is just a little bothersome my family and friends often tell me they could not tell it from the fresh corn from the garden.

OLEVIA CLAMANDS.

HINTS FOR THE HOUSEHOLD.

A serviceable and practicable cover for a dining-room table when not in use is made



by purchasing an unbleached table-cloth of the required length, selecting a scroll or some large, effective pattern, and outlining this in wash-silks, the colors to harmonize with the furnishings of the room. This cloth, besides being easily laundered, makes an attractive cover.

When using cabbage for cold slaw, cut it into ribbons an hour or more before it is to be used, and let stand in ice-water until the last moment; then drain it upon a soft cloth to remove the water, and pour a French dressing over it. If once tried thus it will always be treated in this manner.

For removing the stains of fruit from table-linen, oxalic acid, javelle-water, boiling water and milk are all recommended, together with many other liquids.

When desirous of mending a piece of broken glass or china, a cement may be made by dissolving half an ounce of gum acacia in one gill of boiling water and stirring in plaster of Paris until the mixture is the consistency of a paste. Apply the cement to the broken edges with a brush, and fasten the two parts together until perfectly dry.

FRUIT DESSERTS—GRAPES.

- 1. Grapes Plain. 2. Iced Grapes.

In no way is this fruit so delicious as when served daintily after having first been thoroughly cooled. The purple and white California grapes are exceedingly delicious and make a lovely dessert, when arranged artistically together in a glass dessert-dish. The ordinary purple, white and red grapes also look very dainty and inviting when arranged together in one dish, and finish off a table as only fruit daintily served can do.

Iced grapes also look well, although not a little time and pains are required. The small red Delaware grapes are perhaps the best to serve in this manner, although the small white, or they might be called green, grapes, which are also thin-skinned, serve very nicely.

Take as perfect bunches of grapes as possible, carefully look them over and remove all dirt, etc., after which they are ready for the crystallizing or icing.

Beat some white of egg well, and into it dip your grapes, bunch by bunch, placing them carefully afterward in a sieve to drain slightly. Then dip them again, bunch by bunch, into finely powdered or confectionery sugar, and place them carefully on a flat dish to harden or crystallize.

After they have slightly hardened, repeat the process, which can be repeated a third time even, if desired, if the two dippings do not give the desired thickness to the icing. Then set away in a dry place to harden. Some little time before serving place the fruit, the icing of which has by this time become perfectly crystallized, carefully into the dessert-dish in which you intend to serve the same; then put the same in a cool place, as the fruit should be served when perfectly cold to be at its best. EMMA LOUISE HAUCK.

I consider Jayne's Expectoant the best Cough Medicine I know of. In cases of Croup, IT HAS SAVED BOTH MY OWN AND MY CHILDREN'S LIVES.—N. N. CAZEN, Sparrow Bush, N. Y., October 29, 1895. For Headache, take Jayne's Painless Sanative Pills.



the fiercest rays cannot scorch them, but where light, rain and air can do their perfect work.

Keep a plate under them when out of doors, to prevent the tender rootlets seeking the ground, from whence they will have to be rudely torn in the autumn, when they are brought into the house, thereby checking and injuring the plant.

Keep the leaves clean with a sponge and soapy water, rinse in clean, soft water, as hard water leaves a limy sediment which spots the leaves and is hard to remove. I

Advertisement for Enameline Stove Polish, featuring an image of the product and text: 'The Modern STOVE POLISH. DUSTLESS, ODORLESS, BRILLIANT, LABOR SAVING. Try it on your Cycle Chain. J. L. PRESCOTT & CO., New York.'

Advertisement for 1897 Columbia Bicycles, listing prices for various models and mentioning 'POPE MFG. CO., Hartford, Conn.'

Advertisement for Cheap Grazing Lands in Western Kansas, New Mexico, and Arizona, mentioning 'Stock Ranch Locations' and 'Great Southwest'.

Advertisement for 'SOMETHING FOR NOTHING' Quaker Bath Cabinet, listing ailments treated and contact information for C. World Mfg. Co., Cincinnati, Ohio.

Advertisement for Wall Paper, mentioning 'Write to the largest wall paper house in U. S. for samples—mailed free.' and contact information for Kayser & Allman, Philadelphia.

Advertisement for 'LEARN TELEGRAPHY' with text: 'Young men wanted. Situations guaranteed. Address FISK TELEGRAPH SCHOOL, Lebanon, Penna.'

Advertisement for 'OPIUM HABIT DRUNKENNESS' cured by Dr. J. L. Stephens, Lebanon, Ohio.

40 Cent Patterns for 10 Cents

Any Three Patterns, and Farm and Fireside One Year, 50 Cents.

These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only 10 Cents Each.

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there

being a *separate* pattern for every single piece of the dress. All orders filled promptly.

For ladies, give BUST measure in inches. For SKIRT pattern, give WAIST measure in inches. For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded. To get BUST and BREAST measure, put the tape measure ALL of the way around the body, over the dress close under the arms. Special price of each pattern, 10 cents.

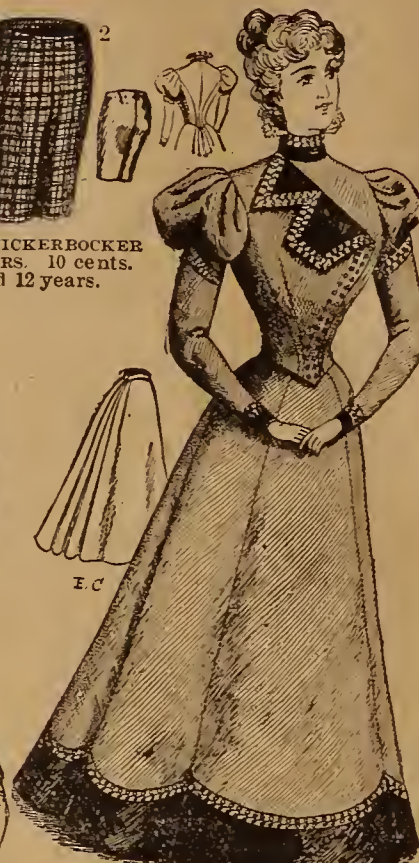
Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.



No. 7137.—MISSSES' BLAZER. 10 cents. Sizes, 12, 14 and 16 years.
No. 6989.—MISSSES' FOUR-GORED SKIRT. 11c. Sizes, 12, 14 and 16 years.



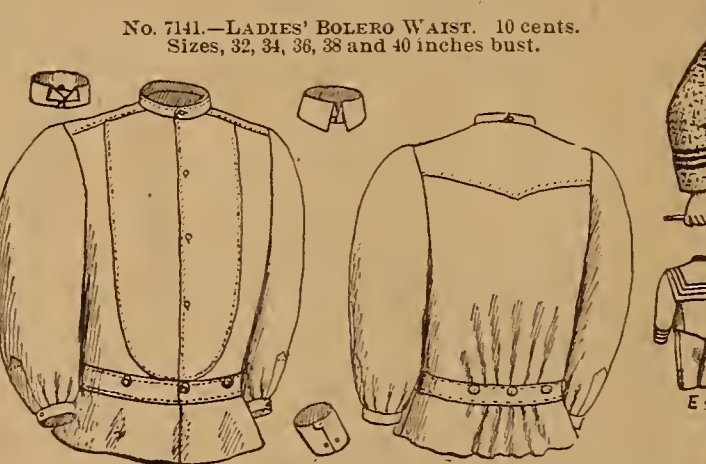
No. 6558.—BOYS' KNICKERBOCKER AND KNEE-TROUSERS. 10 cents. Sizes, 6, 8, 10 and 12 years.



No. 7100.—LADIES' BLAZER. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.
No. 6990.—LADIES' SEVEN-GORED SKIRT. Sizes, 22, 24, 26, 28 and 30 inches waist. 11c.



No. 7128.—LADIES' SLEEVE, WITH HIGH PUFF. Sizes, 32, 36 and 40 inches bust. 10 cents.



No. 7141.—LADIES' BOLERO WAIST. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.

No. 6745.—BOYS' DRESS SHIRT-WAIST. 10 cents. Sizes, 6, 8, 10 and 12 years.

No. 7136.—LADIES' TIGHT-FITTING BASQUE. 10 cents. Sizes, 32, 34, 36, 38 and 40 inches bust.
No. 7102.—LADIES' FIVE-GORED SKIRT, WITHOUT DARTS. 11 cents. Sizes, 22, 24, 26, 28 and 30 inches waist.



No. 7144.—LADIES' UMBRELLA DRAWERS. 10 cents. Sizes, 22, 24, 26, 28 and 30 inches waist.



No. 7098.—BOYS' SHIRT-WAIST. 10 cents. Sizes, 4, 6, 8, 10 and 12 years.



No. 7121.—LADIES' AND MISSSES' BLAZER. Sizes, 32, 34, 36, 38 and 40 inches bust. Misses' sizes, 12, 14 and 16 years. 10 cents.



No. 6907.—BOYS' SUIT. 10c. Sizes, 4, 6 and 8 years.



No. 7049.—LADIES' BLAZER. 10 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.



No. 6807.—BOYS' BLOUSE WAIST. 10c. Sizes, 2, 4, 6, 8 and 10 years.



No. 6788.—BOYS' SHIRT-WAIST, WITH BYRON OR SAILOR COLLAR. 10c. Sizes, 4, 6, 8, 10 and 12 years.



No. 7093.—LADIES' MORNING GOWN. 11 cents. Sizes, 32, 34, 36, 38, 40 and 42 inches bust.

Postage paid by us. Send one cent for catalogue.

Address FARM AND FIRESIDE, Springfield, Ohio.



"Josiah a-settin' on the conference."

Samantha Among the Brethren

Premium No. 55.

By Josiah Allen's Wife, Author of "Samantha at Saratoga."

We have another Samantha book. Heretofore it has been sold by agents, and, of course, at a high price. We recently purchased the right to publish the book, and for the first time this excellent work is offered to the public at a price which every one can afford to pay.

Comic Illustrations

This book is fully illustrated with pictures drawn by a noted comic artist. The two illustrations shown on this page are from the book, and give an idea of the treat in store for all who order a copy.

THE FUNNIEST BOOKS EVER WRITTEN

To a vast portion of the reading public the works of "Josiah Allen's Wife" are the funniest ever written. Yet she draws many a good moral and drives home many a lesson between laughs. Her fun is as pure and wholesome as a little child's prattle, and her books can be read with profit as well as pleasure by every member of the family. "Samantha Among the Brethren" is considered by many to be the best book she has ever written.

TESTIMONIALS ON THE BOOK.....

BISHOP JOHN P. NEWMAN said: "It is irresistibly humorous and beautiful. The best of all that has come from the pen of 'Josiah Allen's Wife'."

THE LUTHERAN OBSERVER: "Any person who does not enjoy 'Samantha Among the Brethren' must be a 'heathen and a publican.' The book is full of humor and wit, and the keenest cuts of irony and sarcasm."

FRANCES E. WILLARD says: "Modern fiction has not furnished a more thoroughly individual character than 'Josiah Allen's Wife.' She will be remembered, honored, laughed and cried over when the purely 'artistic' novelist and his heroine have passed into oblivion; for this reason Josiah Allen's Wife is a

"'Creature not too bright or good
For human nature's daily food.'"

She is a woman, wit, philanthropist and statesman, all in one."



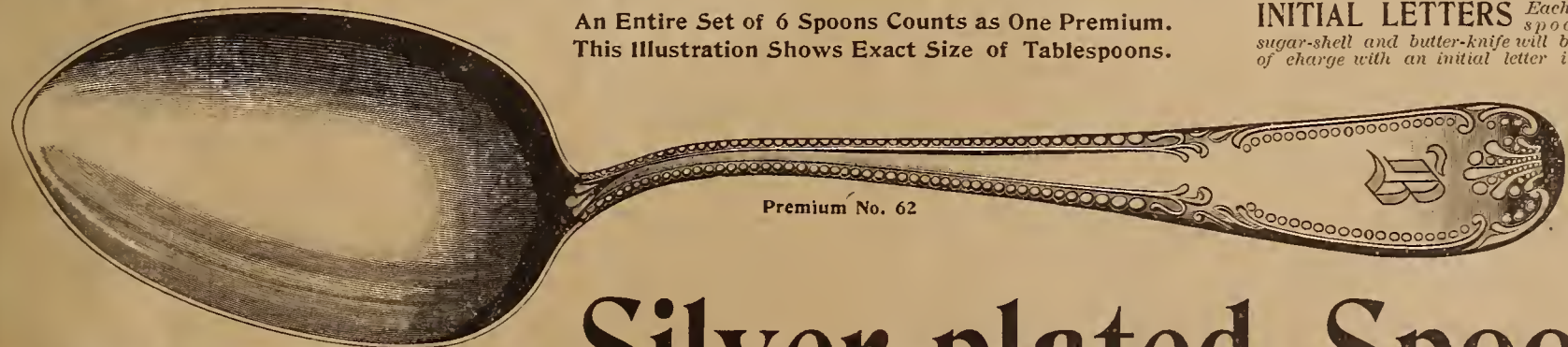
One of the Illustrations

Our Cheap Introductory Offer

Over 100,000 copies of this book were sold by canvassing agents for \$2.50 a copy, which is the regular agents' price for all the Samantha books. Of course, at this price the purchaser got a fine binding; but the agent and publisher got a big profit, too. Our edition of the book contains every word found in the \$2.50 edition, but we make the following low offer:

We will send "Samantha Among the Brethren," and Farm and Fireside One Year, for 35 cents. Think of it, only 35 cents!

When this offer is accepted no commission will be allowed and the name cannot be counted in a club. The paper will be sent to one address and the premium to another if so desired.



An Entire Set of 6 Spoons Counts as One Premium.
This Illustration Shows Exact Size of Tablespoons.

INITIAL LETTERS Each and every tea-spoon, tablespoon, sugar-shell and butter-knife will be engraved free of charge with an initial letter in Old English.

In ordering, say what initial you want engraved on your silverware.

Premium No. 62

Silver-plated Spoons

Guaranteed to be as Described Below and to Give Entire Satisfaction or Money Refunded.

Our new teaspoons have given such universal satisfaction that many have asked us if we could not furnish tablespoons to match. We are now able to do so, also able to furnish a sugar-shell and a butter-knife. They are all made of the same metal, have same proportion of silver-plate, have same design on the handle, and will be engraved with same style Initial.

These spoons are made of solid nickel-silver metal all the way through, and then well plated with coin-silver. They can be used in cooking, eating, medicines and acids the same as solid silver spoons. These spoons will not, cannot turn brassy, will not corrode or rust, and are strong and hard. Spoons of equal merit are sold in the average jewelry-store for about \$2.50 a set; but because we buy them direct from the manufacturers in enormous quantities, and because we do not make any profit off of spoons (the subscription is all we want), we are enabled to furnish them at the biggest bargain possible. In beauty and finish they are perfect, and for daily use, year after year, nothing (except solid coin-silver, which cost about \$10.00 a set) excels these spoons. They are silver color through and through, and will last a lifetime.

PREMIUM OFFERS

- The Set of 6 Teaspoons, and This Paper One Year, 75 Cents
- The Butter-knife and Sugar-shell, and This Paper One Year, 50 Cents
- The Set of 6 Tablespoons, and This Paper One Year, \$1.25

GRAND COMBINATION OFFER

If ordered at one time and to one address, we will send the set of 6 tablespoons, set of 6 teaspoons, 1 butter-knife and 1 sugar-shell, 14 pieces in all, and this paper one year, for TWO DOLLARS.

When any of the above offers are accepted no commission is allowed and the names cannot count in a club, but the paper will be sent to one address and the premium to another if so desired.

Postage paid by us.

Address FARM AND FIRESIDE, Springfield, Ohio.



