## TORONTO, THURSDAY, OCTOBER 18, 1888.

#### WAYSIDE CHATS.



week. While I was passing away an hour or two the other day I strolled into a commission house. I there farmers and several apple and pata-

to buyers. After a time the conversation turned on the best way of keeping apples. I tried to be an attentive listener, but one of the buyers held such absurd views that without thinking I took a hand in the

The buyer said it was all nonsense to keep apples barrelled in warehouses where they would be sold out to retail dealers in the city. Indeed the best way to keep apples was in bins, and he would advise farmers to treat apples as they would potatoes. He always recommended city people, when they laid in several barrels of apples for use daring the winter, to dump them on the cellar

Some of the farmers looked at the fellow with wide-eyed wonder, and well they might, as I never heard such nonsense talked by any

I asked the talkative buyer, who expressed his views with a positiveness that almost knocked one down, if he really meant what he said, or was he indulging in a little chaff, just to see how much we would swallow. He replied that he was in dead earnest, and knew what he was talking about. After one of the farmers had ventured to set the

fellow straight, and got snubbed for his pains, I said:—
"My friend, would you put all apples, "My friend, would you put all apples, regardless of variety, on a floor, to shrivel or sweat, and thus lead to loss of flavour or decay, or would you discriminate?"

"Apples is apples," he said, "and you can't make anything else out of 'em."

This remark rather fired me, and I promptly added:—"Fools are fools, and you can't make anythink else out of 'em." He looked wild but I was as firm looking as a pine stump, and when I had subdued him with the

flash in my eyes I said:—
"Your plan of dumping apples on the floor has more in it than you want us to understand. When you get apples in barrels they are tightly packed, and if sold in that condition the person who buys from you receives the same value as you do. But you empty the apples on the floor, and when a customer comes along and orders a barrel you throw the apples in loosely, and the chances are that out of every dozen barrels you make one. You're a nice specimen of

an honest trader—"
"A couple of ladies entered the store before I could complete the sentence, and after a moment's hesitation I gracefully retired, as my temper was somewhat aroused, and I feared I might use even stronger language if I remained.

"Would you advise me to make cider out

of my apples, or to convert them into cider?"
said a visitor to me the other day.
"Cider is a nice drink, and refreshing,"
I answered, "but the trouble is to keep it from fermenting. Fermentation begins almost as soon as the cider is made, and in a short time is contains. So I read a few days

short time it contains, so I read a few days ago, more alcohol than lager beer."
"Now that's the point I wanted to get at," said my visitor. I don't believe much in cider drinking, as I have a notion it leads to intemperance, and that those who make the cider are indirectly making drunkards. I know my opinion will not be accepted by many apple-growers, but all the same I'll cling to them. After that remark of your's about cider containing so much alcohol I'll confine myself to making cider vinegar."

not hold the belief of my visitor, and who would like to keep their cider for home consumption. Any one who has attempted to cider knows the difficulties encountered and the loss often sustained. Popular Gar. dening recently gave the following as a formula to be observed in curing cider :-

The best and only method of preventing fermentation in early made cider is by heating to 175 degrees Fahr., and placing in an tight package and sealing up while hot. following the usual method of canning fruit Cider put up by this process I have kept through the second Summer, as sweet as when it ran from the press. The objection to this method is that it changes to some extent the flavour of the cider, and when opened for use it ferments just as does canned fruit. A method of preserving late made cider is to add some antisepic, advertised in the cider journals, which has at its active in gredient either sulphur or salicylic acid, the latter being the most used. One ounce of the acid to thirty-two gallons of cider being the rule, the quantity being so small as not to be detected, and not injuring it for vinegar making.

An old friend of mine with considerable time on his hands and money in his pocket recently embarked in a moderate way in the fowl business. He has a nice hen house, filled up with all conveniences and comforts for the hens, which are of various strains, none of them being pure bred. He believe in the native hen, whatever that is, and is determined to show that common towl are as profitable for commercial purposes as the high-priced ones. I use the word commercial to distinguish those who raise fowl for table purposes and for their products from those who devote their energies to producing fancy strains, and selling their eggs at fancy

My old friend has been very successful, and has a large quantity of eggs put away for sale when prices go up. I asked him the other day how he packed them, or what he considered the best way of packing. 'What is the object of packing?" he

"To exclude the air, of course," I an-

swered. "Right you are, partner. Keep the air out and the business is complete. Ain't it tiresome to hear and read about all the methods used for keeping eggs? It positively uses me up. I started out with this idea, that packing eggs was a dangerous process, for if the air is kept out the eggs run a chance of losing their flavour, and then who would want to buy them-leastways I wouldn't sell them, although some people would. Give me bran or sawdust to pack my eggs in, and if I then keep then keep them in a cool place, with the temperature even, they will keep several months. I wouldn't attempt to keep eggs more than from four to six months, and I'd favour four rather than six, because eggs that are kept longer, I don't care by what process, are never good eating. I've studied this thing out, and ain't talking at random."

After an interesting conversation, of which I took mental notes for future reference, I asked him what he thought of the Douglas mixture as a tonic for poultry. "It can't be beaten, and if you don't know

how to make it up I'll give the ingredients and their quantities. If you do, why man, you ought to publish it, because it's worth it's weight in gold to everyone who keeps

I said his suggestion would be adopted, and here's the recipe :- Take of sulphate of iron (common copperas), eight ounces; sul-phuric acid, half a fluid ounce. Put one gallon of water into a bottle or jug; into this put the sulphate of iron. As soon as the iron is dissolved add the acid, and when the mixture is clear it is ready to use. Put a gill every other day in the drinking water to every twenty-five fowls. and you will seldom be troubled with disease, and will have fine,

used every day. Smaller quantities may be poured into smaller vessels of water. Besides being a fine tonic and alterative, it possesses valuable antiseptic properties, which make it a remedy as well as a tonic.

A subscriber in Cobourg wrote thus to me a few days ago:—"Will you oblige a reader of FARM AND FIRESIDE by giving him the supposed formula of Wizard Oil, which was published in 1886 or 1887 in one of the American journals, and copied by some of the

Canadian papers?"

I could give him a supposed formula, because I'm inventive-enough to produce even a new form of the marriage ceremony, but it wouldn't follow that the supposed formula would be the correct thing. As most of such medicines are patented in some way it would answer no good purpose to give the component parts of the mixture asked for if I were able to do it.

Here is a letter received from a correspondent in Ridgetown:—"I can load a car of potatoes at 50 cents per bushel of the finest octatoes. Will car them in good condition. Now what does this correspondent mean? If he means what he says he wants coo much for his potatoes just at present. If he wants to let me know how many potatoes he has, and the quality, he has succeeded, but why did he take the trouble to give me such news. I'm under the impression he wants to know if such a proceeding on his part would pay, that is, if there is any money for him in loading a car of good potatoes, and offering them at 50c. per bushel. Well I rather think there is, provided he can get purchasers, as potatoes are selling here at 55c a bag. If my correspondent will add the freight and cost of handling here to the 50c he will find that he asks more for a bushel than can be procured for a bag. Watch the market re-ports, my friend, and be guided by them.

I'm rather fond of fast horses, and enjoy sitting behind a pair, especially if they are trotting along on a smooth road and going at such a pace as to cause me to place my hand on my head to prevent the hair from being blown off. Trotting horses and speeding in the ring have been given great prominence at all our fall fairs this season, and that's

just what set me thinking.
Of what special use are fast horses, to the of what special use are last norses, to the great bulk of our populations? The farmer has no great need for a fast horse, but what he wants are good, powerful horses. Now would it not be a good idea for some of our fair managers to give prizes for strength in horses as well as speed? I think it would, and having made the suggestion I leave it with my readers, who can bring their influ-ence to bear in their respective localities upon fair managers.
strength not speed. fair managers. Remember the suggestion is

"Just give my farmer friends a pointer about taking care of tools and implements," said an old man, who called on me the other

day.
"In what direction?" I asked. "You see this is about the time all farm implements are housed in the barn and tools put away until next season. If the woodwork of the implements were given a coat of paint or raw linseed oil the wood would be benefitted, and last longer. Then the metal parts could be cleaned, the ruse if any, rub-bed off, and a coating of some mixture of grease applied, to prevent rust again appear.

ing."
"What sort of a mixture do you recommend?" I asked.
"I recommend what I use myself, which

is three parts of lard and one part of powderad rosin. It works well. Just give the ed rosin. It works well. Just give the farmers this idea, and if they adopt it dollars on dollars will be saved next spring."

I promised to do as requested, and the old man went off with a pleased smile on his weather beaten face.

Kay, agent of the M. C. R. R., at Edgar's Mills, sent the following on a postal card the other day:—"I have in my ossession a potato weighing 494 oz. It is of the white kind, and was raised by Joseph Martin, on lot No. 9, township of Colchester, Essex. The potato can be seen at the M. C. Ry Depot, Edgar's Mills.'

Mr. Kay wants to know who can beat this. Just in this connection will as many of my juvenile readers as feel disposed drop me a card, giving the numbers of potatoes of the same weight as mentioned above in a bushel of 60 lbs.

Circumstances sometimes induce me to put in this column what may seem out of place. It must be recollected that I have a large circle of readers, and being only a tramp they take advantage of my easy going ways, and write to me on all kinds of subjects. Frequently I'm compelled to destroy many letters, and I was prompted to drop this into the basket, but a second thought induced me to give it a place, as there is no reason why an expert cooper should not receive some prominence as well as an expert in any walk of life. The letter is dated Burlington, but bears no signature beyond that worn out one, "A constant reader":—
"Joseph W. Smith made 80 barrels here last Thurshay. That I consider is fast barrel making for one cooper to make in ten hours. Kindly make an note of this in your paper." Now the road is clear for others clever in their business to make known their powers of handiwork, but the line will be drawn at bank thieves and champion liars, as they are such a large community that I couldn't devote space to their exploits.

THE TRAMP BRAN AS CATTLE FOOD.

TOO R. WALDO F. BROWN, of Iowa. has been experimenting with bran, has teed for cattle, and gives the results of his tests as follows:—
"I have recently learned of some experiments in feeding cattle on hay and bran that have interested the services of the

bran that have interested me greatly, a ynopsis of which I will give our readers. Fifteen ordinary scrub steers were selected for the experiment, and they were stallfed for four months, being allowed exercise a part of each day in a small barn-yard. The steers averaged 914 pounds at the beginning of the experiment. These steers were fed all the hay and bran they would eat, and during the four months the average amount of hay eaten per day was about 16 pounds, being a fraction above this the first nonth, and a little below for the remaining months. The average daily ration of bran was a small fraction over 13 pounds per day for the entire time. The average gain of the herd for the time was two pounds per day or a gain of 240 pounds each for the period of four months. These cattle when slaughtered were ripe and showed well on the block. The experiment was made at Minneapolis, Minn., and the bran fed was made from spring wheat at the Pillsbury mills, and was thoroughly cleaned that there was liter-

ally no flour left in it. Some experiments made by Dr. Goessman, at the Massachusets Experiment Station, show that a ton of bran contains about 60 pounds more of digestible protein than a ton of corn, and that the bran has about one-fifth more of this valuable ingredient than the corn. In my market bran usually costs more per pound than corn, but when I can exchange a pound of bran I would always feed at least half bran to fattening stock, and a much larger proportion to young growing stock; and even when bran costs 50 per cent more than corn I always use it in preference for calves and colts under a year

The most satisfactory and economical feed for cattle that I have ever used is cob meal and bran used in equal bulk. With the modern mills geared to run at a high rate of

healthy fowls. In case of disease it can be can scarcely detect it in the meal, and a mill costing one hundred dollars or less will grind from 25 to 50 bushels per hour, the smaller amount when ground very fine. I paid but four cents a bushel for grinding 70 pounds of ears, and with corn at 30 cents a bushel this feed costs but half a cent a pound. This meal weighs for a given bulk nearly or quite twice as much as bran, and with bran at \$14 a ton the ration of cob meal and bran mixed for a thousand pound steer must exceed 15 pounds to cost 9 cents. I think this would constitute a ration heavy enough for a steer that would finish off to about 1,200 pounds. For the first month the feed would be somewhat lighter. If the cattle had the run of a straw stack for a part of each day the ration of hay might be reduced or corn fodder substituted for it, or with good bright straw by adding a few pounds to the grain ration the cattle would do well without other rough feed."

#### FRUIT TREES STARVED TO DEATH

F any person were to chain an animal to a stake in the field and leave it to shift for itself, then to watch this animal until it gets thin and decrepit from loss of flesh and strength it is quite probable that the humane society would be after him with properly deserved punishment. Yet this is precisely what thousands of farmers are doing with their fruit orchards, of course barring the difference between the insensate tree and the living animal. Like the latter, the tree is chained to one locality, and can-not go abroad for food; but fortunately it tire satisfaction.

has no sense of suffering, or at least none

that we can appreciate. And yet even for a tree there must be something akin to pain in

the process of slow starvation-the seeking

found. It takes an enormous amount of

various manures to form fruit and seeds.

The leafy part of the tree may mostly come

from carbonic acid gas of the atmosphere, but the stone fruits need a great deal of pot-

ash. Grapes and pears require considerable

amounts of phosphate in addition. There is

perhaps no place on the farm where a good dressing of manure will do greater good than

in an old apple orchard where the trees seem

TIPS OR SHOES.

CCASIONALLY the question of shoe-

ing horses with tips is discussed by

veterinarians and horsemen, the former generally favouring tips. To give our

readers a correct idea of what is mean

tips two illustrations are introduced.

which are taken from Simpson's "Tips and Toe Weights." They show very plainly the

way this sort of shoe appears upon the foot, and by their aid any blacksmith should be

able to make and properly put on tips with-out any danger of making a serious mistake.

These cuts illustrate the square-shouldered

tips, which seem to be the most popular

among those who have tried both kinds,

The other method of making them is to draw

the ends of the tip to an edge, making it "feather-edged," in which case the hoof is

"feather-edged," in which case the hoof is trimmed level, the shoulder being omitted

The square end placed neatly against an offset made in the shell of the hoof holds the

tips on more securely and firmly and gives

better satisfaction on account of lasting

longer. Among the points claimed for this

manner of shoeing is the fact that it gives all

the protection necessary for ordinary use, and yet allows the foot that freedon at the

proper points which will preserve the natural

method yet known, Nature demands that the quarters of the foot should be entirely

free that the most perfect conditions be pre-

served. Proper pressure on the sole and

foot is positively necessary, also a point

which will be conceded by every one who has given the anatomy of the foot of the

horse any study. It will be apparent at a glance that this system excels any other yet

invented in allowing not only the freedom of the quarters, but also both frog and sole pressure. Another matter that is arged in favour of tips is economy. Cast-off shoes can be utilized this way. It is less expensive

to put on tips than shoes, as the former are more easily made and fitted to the foot.

A horseman in Ohio, who has given this subject some study, thus deals with it from an economic point of view:—Have the smith take an old pair of cast-off shoes, cut

off the ends and fit the tips around the shell

of the foot. The end can be feathered, or an

offset made for the foot to fit into. This

done your horse is barefooted, has all the ad-

vantage of running barefoot, and more, the

inctions to the greatest degree of any

to be running out. - Western Rural.

exhausted rootlets, of food that cannot be

The horse is ready for wox any time on hard or soft ground. This to gives the horse what nature intended hm to have at all times, viz: frog pressure. The frog coming into contact with the gound receives the moisture, and by bearing the weight of the horse, expands till the bock of the foot is as broad as the front. A bose should with these broad as the front. A hose shod with these

tis can pound the hrdest streets of the olies without flinch. in Take the pressure atay from the frog, anthe principal part of the foot, the frog itelf, dries up, and the horse has corns, as the foot becomes centacted. Tip your hases, and they will b running barefooted al thus be resting thirfeeteightmonths ir the year. This is the only humane way tahoe a horse, and costs less than one-half smuch as new shoes

with calks and toes. If he frog is small and dried up it may be best pive him frog pressure gradually. A hors shod with tips may go sore for the first 'er days, but he soon comes around, and moves better than he formerly did when of "stilts," with the whole weight of his bod on the heel. The veteran live stockwriter, A. B. Allen, recommends tips for ordnary farm work, and

says he uses them on his own horses with en-

AGAINST BINDING GRAIN.

R. HIRAM SMITH, the well known Wisconsin dairyman, is convinced by his own experience, that it is better in every way not to bind grain. In a contribution to Hoard's Dairyman he discusses the subject, as follows:

Does it save labour in securing the crop Does it shorten time of exposure before it can be safely housed or stacked? Does it make the kernels of the gain any better? Does is save the straw in any better condition for feeding cattle? Can it be threshed with less help, or waste of time? To all of these questions the observing farmer, must give his empathic answer, no!

What are the claimed advantages and what are the known losses in binding any kind of grain (with the possible exception of wheat,

where the straw is not to be utilized?)

It was anciently claimed that there was less scattered and left on the ground, when bound, than when harvested unbound. While this claim originally, had some merit, vet since the advance of civilization to the use of sulky rakes-that gather up all-the claim is left without force or logic. It was originally claimed that bundles could be unloaded to better advantage than loose grain. While this claim had some merit, under the old system of farming, when grain was pitched over the "big beam" by hand, since the advance of civilization to horse forks, the claim is without merit or fact to sustain it. Great claims have been put forth for the self-binder, in the great amount of labour

poultry house. Fill the bottom of the nests with dry earth, mixing a tablespoonful of insect powder and tobacco refuse in the hay. The house will then be clear of vermic. All filth must be carefully removed, while the old nests should be burned. The yards should not be spaded, so as to render them clean. By thus cleaning the premises disease may be warded off, the house disinfected and rendered more comfortable for the nens, and a large number of eggs se-cured.—Farm and Garden.

## CHICKENS AND DUCKS.

OTHING will enlarge the capacity of a chicken quicker than a varied bill of fare and a good supply of green food. To chickens in confinement, onion tops are relished more than are the bulbs themselves. Beet and turnip tops will be greedily devoured. That they may not be wasted, lay them with the tops all one way and weight them down with a stone. Bran and shorts, wheat and oats, table-scraps and meat, with a very little corn, a few sunflower seeds and a small amount of buckwheat, make an irresistible combination, combination that will make a chicken thrive and grow in spite of itself.

To make pullets trot along toward maturity with a wonderfully accelerated pace, give them every morning a warm feed of bran and shorts and ground oats mixed up with milk, or meat stock in which is a little salt. At noon give a feed of meas, and at night all the wheat they will eat and a little left to scratch for the next day. In addition to this, provide green food, crushed bones and pure water, and give each day one heavy feed of broken dishes; they will be eaten with avidity.

Feeding pepper often to fowls as a regular appetizer is a bad practice. Although a very little will do no harm, yet the continued use of the condiment is liable to cause liver complaint. Warm feed tends to have the same stimulating effect without possessing the injurious qualities of the cayenne.

The only way to make a chicken-house is to build it with a broad floor. Where the droppings nightly fall on the ground the soil will become foul and damp, even if it be cleaned out every day of the year. The odors that then arise are unwholesome in the extreme, will cause roup, and in fact nearly all the ills that poultry flesh is heir to. The board floor should then be kept covered with two or three inches of dry soil, which should be repeatedly renewed.

The only way to make roosts is to make them on a movable frame, that may be taken out of doors, there to be scalded with boiling hot water in which is a little crude carboli acid. Make the roosts all on a level and not more than two feet high, thereby preventing much quarrelling and the bumble foot.

Ducks and chickens should never be kept on the same place unless they can be sepa-rately fenced. Ducks are not the cleanest animals in the world; they will foul any water to which they may have access. If this be a running stream or a large pond kept purposely for their use, well and good; but if they must run with the chickens, or if the horses must drink after them, verily the duck

Ducks grow very rapidly, and one engaged in the duck business can turn his money over quickly if he will go into the business in a systematic manner, prepared to make it a study and to take advantage of every good

point the duck has.

It is quite probable that the Pekin is the best breed for all purposes. The feathers are white and will sell well, and it is said that the feathers alone will pay for the feed of a flock. They may be placked every six weeks, and if not plucked, the feathers fall off and are wasted. When they are what is called ripe, they come out easily and will cause no pain.

The ducks commonly found in this country under the name of the Pekin are not of that breed at all, but are much smaller. They are the White Aylesbury. The Pekin is a Ducks should be fed every two hours. Every other feed should be of green food alfalfa, clover cabbage, turnips or potatoes. Milk when it can be had promotes rapid growth, as does also lean meat, of which they should have one meal a day. Corn should be fed only the last ten days, when it

and iat meat should be given in plenty, just as much as they can stand.—Cackler. HOW TO FEED SUGAR TO BEES.

YOW to feed is an important question. The ordinary regulating bottle-feeder will be of little service this season; fast-feeder may be used. There are plenty of these to choose from, and where expense is of little object, any of the boxes of numerous divisions, upon the principle of which most fast-feeders now are made, can be used, but there other and cheaper methods of making a fast-feeder the following one we frequently use:

Obtain a tin dish, having almost perpendicular sides; into this place a wood float almost fitting the dish, and having a number of holes, freely dispersed, bored through, We place this on top of the frames, after filling it with syrup, and under the quilts. allowing, by laying pieces of wood across the tin dish, the bees to work up over the edge and take the syrup down. It is not what we call a tidy way of doing it, but it answers

as well as the most expensive feeder. The dish is refilled through the hole in the quilt, and will hold about four pounds of syrup. The quilts must be tucked down snugly around. A good colony with this feeder can be fed up in about ten days or less, if the weather is warm.

It is very noticeable that beet sugar is objected to by most bee keepers, and rightly so. Although beet sugar is, chemically speaking, cane sugar, it is vastly inferior in its saccharine properties to sugar made from the sugar-cane. If we place a quantity equal in bulk to what we usually find with sugar-cane sugar sufficient for sweetening a cup of tea, it will be found quite unsuited to our taste, necessitating a further addition of at least one-fourth the original bulk. Bees fed on the same do not winter in at all a satisfactory manner : therefore we think that a knowledge as to where to get a sugar free from beet will of great service to our readers, and likewise a comfort to our bees through the rigours of the winter of 1888-9. - British Bee Journal.

## WINTER QUARTERS.

CORRESPONDENT of the Iowa Homestead, writing about the time at which bees should be put into winter quarters, says :--I see it is advised by some writers

not to put bees into winter repositories until cold, freezing weather. This, I think, cannot be endorsed by practical beekeepers, although we know of bees that wintered under these circumstances. Yet I call it bad economy. It may be advisable to avoid long confinement, as I see it very often advised to give bees a fly when the weather will permit luring the winter. This I do not approve of, as bees can be kept in a good repository for a much longer time than is required in this

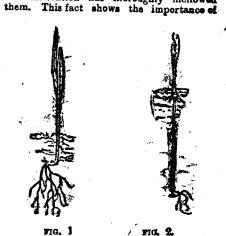
climate, and kept in good condition.

To winter bees well they should be put in the winter quarters before frost gets in the hive, be it the first of November or the last. I had two colonies put in on the 24th day of October and weighed. The very same day I also weighed twenty colonies and left them on their summer stands. On the 16th day of November I weighed them again, and put them in the repository. I found that they consumed on the average three pounds to the colony, while the two in the repository only consumed one pound. On the whole number I lost 160 pounds of honey on those I left on the summer stands; or, in other words, I should have saved 160 pounds of honey if I better than a greater depth. But if a

very light in stores, and placing them in winter quarters early may save many a colony. To keep them in long confinement, these three points are necessary: First, place them in the repository before the frost gets in the hive, or approach of cold weather; second, the temperature should be kept at 40 or 45 degrees above zero, either by natural or artificial heat (mine is natural); third the ficial heat (mine is natural); third, they must never be so disturbed as to break their cluster when in winter quiet or hibernated.

#### SOWING WINTER WHEAT.

T often happens at the time that farmers are sowing their winter wheat in the earlier part of autumn, that dry weather perc or autumn, that dry weather prevails, and there is not sufficient moisture in the soil to cause the newly sown grain to germinate. In such seasons, and at the time when wheat fields are expected to present a uniformly green surface, large patches are seen where the ground remains entirely bare. The young plants have not started. Now if such fields are examined, it, will commonly be found that the soil of the bare spots is hard or cleddy, or has not been finely pulverized, while such vorticulars as present the green and while such portions as present the green surface of the new crop are of such a nature that cultivation has thoroughly mellowed



preparing well the soil to receive the seed for the purpose of securing a prompt vegeta-

tion, so important to subsequent success.

But whether to guard against drouth or not, there are other strong reasons in favour offine pulverization in preparing for the wheat ground meal or hour; or his the attempt to raise a hill of pumpkins in a heap of stones. The practice of many of the best farmers has proved the value of repeated harrowings to render the soil mellow. Land which has given so small a return in the crop as scarcely to pay the cost of cultivating, has been made to give thirty bushels or more of wheat to the acre by putting it in a fine condition

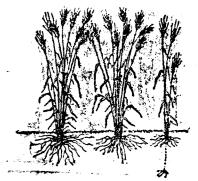
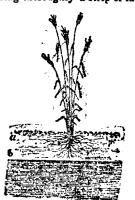


FIG. 3.

with the harrow and other implements. Our correspondent W. F. Brown reported some years ago to the Country Centleman instances in his own neighbourhood where poor crops, resulting nearly in failure, were at once changed to twenty-five, twenty-eight and thirty bushels to the acre by thorough and repeated use of the harrow. plank drag, roller and other tools for reduc-ing the land to fine tilth before sowing; and he came to the conclusion that one dollar per acre in extra work with pulverizers would add from five to ten bushels per acre in the crop.

Another advantage of a fine preparation is in avoiding deep planting. Farmers who deem it necessary to give much depth to their sowing in order to get down to the moisture, are suffering a loss every year. A satisfactory and instructivet experiment, teaching a valuable and durable lesson may be mad by preparing thoroughly a strip of land, and



especially with a mellow surface, and sowing the grain on it just deep enough to germinate freely; and on another strip without good preparation setting the tubes of the drill six nches or more in depth, and then observe the difference in the new crop when it makes its appearance. Or the experiment may be tried on a more limited scale. The seed covered at a moderate depth will start at once and grow freely, as shown by fig. 1; the deeply covered seed will be several days longer in coming up, the time will be lost, and before it can get a strong hold of the nearer the surface as in fig. 2.

In experiments which we have made, seed buried one inch deep came up in 6 days; two inches deep in 7 days; and four inches deep

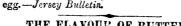


in 10 days. A month later the one-inch plants were stronger than two-inch, and much

FIG. 5.

stronger than the deeper plantings. Fig. 3 shows the comparative strength of thedeep and shallow planting as the crops approach maturity. No invariable rule can be given for the best depth. It must vary with the character of the soil and of the season.

If the surface soil is moist enough, one inch would be better than two, and two-inches placed in their proper positions in the had put them all in on October 24. Bees are sufficient preparation has been given, is



answer given:

of pure water, so essential to the making o fine butter. Now, springs and brooks fail much sooner than twenty-five years ago. Third. In some cases cows are driven to and from pastures by dogs. Cows that get hot and nervous give milk that is fatal to good butter, and will taint the entire lot. To make good, sweet butter, requires healthy cows, good, sweet food, pure water and

speed the cob can be ground so fine that one | shell is protected and the hoof cannot break. | -Orange County Farmer.

#### RIPE CREAM. eaved over the self-rake reaper and hand binding. This claim is only good when it can be shown that grain should be bound as last as

ITH cream there is a certain stage of ripeness, if I have use the only secure the greatest amount of butter from a given amount of cream, but will likewise produce the finest flavoured article. Vary this either way and you will meet with disappointment. Unripened cream makes less butter, overripe

STAR OF STEWARTON, (588), (5376).

Imported by William Rennie, Toronto, July, 1887; foaled May 7, 18 5. Colour, brown, with white stripe on the face. He is a horse of

ve y compact build, round body, short legs, flat and well feathered and has grand action. He strongly resembles his famous sire, old Darnley. Was bred by John McCamon, Kirranrae, Kirkholm, Scotland. Now owned by Mr. Rennie.

cream inferior butter. How shall this golden mean be secured? I answer, only by patient observance and painstaking efforts. There are no set rules that will always secure the same invariable results; and experience, tempered by judg-ment, is the best guide. Under certain atmospheric conditions cream will ripen sooner at one time than at another. Again, the cream of certain cows will ripen sooner than others, or the kind of feed that is eaten will influence the ripening process. I have observed that corn meal fed a little in excess will hasten the ripening of the cream, but the butter therefrom was soft and oily; on the other hand, an excess of bran feed will retard not only the process of ripening, but churning as well, and the butter will be pale and sickly looking, as well as "crumbly." despite your best efforts. Any or all of these causes combined, help to make "butter It is only close observation and prompt action that will insure you continued success at the churn. After the cream is skimmed into the receptacle for ripening, be it crock, pan, bucket or jar, stir it frequenty, say once every day, at least—the æration is a help in the churning. Keep at a uni-form temperature if possible never allow it to get too warm-keep below rather than bove the required temperature. If necessary you can easily raise to the required tem perature, but once get above the requisite neat and your product is spoiled, manipulate it as you may. You can no more "doctor" scalded butter than you can mend a broken

THE FLAVOUR OF BUTTER.

Ta recent meeting of dairymen in Sherman, New York, an old reliable butter buyer remarked that the standard quality of butter in Chautauqua county is not as high as it was twentyfive years ago. The question was asked, it it was true, what is the cause? This is the

Twenty five years ago there were nearly 109,000 sheep in Chautauqua county. They in a large measure cleaned the pastures of weeds and rubbish, turning into the best of wool what is now a nuisance and the first cause of bad butter. The sheep are gone, and now our pastures and meadows blossom out with white and yellow daisies, rag weeds grow up, golden rods beautify the fields, toad plantain runs up in seed rods, adder tongues speckle the hills. All of these and many others grow laxuriantly in this country. Cows eat them, and thus every pound of button; made bitton, and it is young to butter is made bitter, and it is impossible to make good butter from such feed. assured, any bitter herb taints and defects the butter.
Second. In many cases during the latter

part of the summer, cows do not get plenty gentle treatment.

If these are the causes for reducing the high standard of butter in New York, may they not be the cause of the low standard of some butter? We should suggest that where there are no sheep to keep the pasture clean, that a hoe be used, and that everything you would not cut for hay be cut with the hoe. If you have any not facilities for having water where your cows can help themselves at any time, give them an opportunity to do so at least three times a day, and don't dog them.

## ripeness, if I hay use the term for cut, or that it is no injury to grain or straw the want of a better, which will not to so bind.

It was anciently claimed that bound grain could be threshed to better advantage than loose grain. This claim had a good deal of merit, when grain was threshed by hand If the heads were uniformly together, the flail would hit more heads at a single blow than if the grain was in a loose condition. But since the advance of civilization to threshing machines, the claim is destitute of

merit, reason or sense.

So much for the claimed advantages of binding grain. Now what are the known losses and disadvantages? In the first place it takes three horses on a

self-binder, to cut the same grain two horses will do with a self-raker, reaper, a loss of onethird of the power. It will take a good man to shock what a self-binder will cut. It must te left three times as long in the shock to dry out and be in condition to house or stack us it requires if left in the gavel, thereby trobling the danger of loss by exposure to storms. It takes double the time to unload bundles by hand in the barn than it does to anload loose grain with a horse fork. There is absolutely no gain, in threshing, to have it bound. Repeated trials, last week, showed that a ten-horse thresher run out one and one-half bushels of barley per minute from bound grain and from unbound barley from the same field, two bushels per minute were uniformly threshed, and both grain and straw were in better condition from the unbound. Poes any observing farmer believe that barley and oats are in fit condition to bind, when cut, if they are cut as early as they should be to save loss of grain from shelling and to get full value of straw for feeding stock—always worth to the dairyman \$4 per ton if mixed with nitrogenous food The experience of the present harvest has convinced me that barley and oats should never be cut with a self-binder, and that to bind after a self-rake reaper is worse than labour lost. If gavels are turned, the next day after reaping, and placed so as to leave an opening for the waggons, the day follow-ing and pitched on with barley forks, the crops can be put in the barn with less labour than

to bind and put it in shock. Study, investigation and experiments have convinced dairymen that the full value of a corn crop, for feeding purposes, can be secured in the silo, and the labour of shocking, husking, shelling and grinding saved. The same investigation and experiments will convince the observing farmer that binding grain under the most favourable conditions is dead loss of labour, no benefit to the grain, and an almost certain damage to the straw. Large bundles nearly always smell musty under the band. The musty odour will impregnate the whole stack, and cattle eat it with no better appetite than men eat musty bread. Binding grain delays the precious time of harvesting, which delay often entails loss. My entire harvesting and threshing was done before any other farmer in the neighbourhood had completed binding and hauling in, and several days before any grain cut with a self-binder was in fit condition to go in. If labour can be saved, and better results can be secured, by not binding grain, the question is worthy of consideration.

## TO CLEAN THE POULTRY HOUSE.

IRST remove all the contents—nests, roosts and boards for catching the droppings. Then slake some stone limits with the contents—nests, with warm water, and make a bucket of thick whitewash, adding a tablespoonful of carbolic acid. Apply it thickly, inside and outside, and into every crack and crevice, not even overlooking and under part of the roof and the floor. With a sponge apply kerosene to the roost poles. nests and boards, first cleaning them thoroughly and set fire to them. They will only burn until the oil is consumed, when the fire may be extinguished. This will destroy every egg or parasite on them. They may be again anointed with kerosene and

is only on the lightest soil that a greater depth than twoinche will be required. Withs rough land and clods, it may be necessary to

give a greater depth. Gardnershave tound it important to "firm" the soil in order to insure the germination of fine seed sown slightly below the surface. For large seed this operation is less essigntial. but cases may occur when with a dry or loose soil, rolling the ground may be of much use. But wherever resorted to, the farmer should carefully observe if it makes the particles of soil adhere together, in which case it will do more harm than good. The same care must be used whether to sow before or after rain, where the farmer has the choice. If the soil is granular or cloddy, a shower may aid in making it mellow when worked, and better fitted to compress all the sides of the seeds On such land sowing before rain may leave the seed lying loosely among the clods. But a long and heavy rain may render the soil unfit to be worked, and preceding it would be a better time. It is absolutely necessary for the farmer to use his judgment in all cases of the kind.

A thorough preparation of the soil, as already stated, is by far the best insurance against any failure; and while deep tillage is valuable to promote the subsequent growth of the crop, a fine tilth is essential to its early progress nearer the surface.

A crop raised in the way here recommended will be less liable to harm by winter killing and on all soils requiring thorough tile drain ing, both will be essential. Soils apparently dry enouga at the top, often have a water-soaked or muddy subsoil, and the difference between such soil and one well underdraine is shown in figs 4 and 5, one representing the plants stunted by the water below, and the other in full vigour in dry subsoil. - Country

## LIGHT AND AIR ON BUTTER.

ROF. DUCI.AUX, says the Mark Lane Express, has lately been at work examining the conditions for keeping butter. As a true scientist, he first tries to find out the exact difference between fresh and deteriorated butter, especially in the fatty and the volatile acids, and their products of decomposition. Thus he finds that the relative portion of butyric acid is but very little affected by long keeping in air-tight pack. ages, while in an open package butyric acid is quickly developed, beginning from the outside. Organisms are partly the cause of rancidity, yet Duclaux first investigates the influences of warmth, air and light. Fresh butter already contains about 0.1 per cent. free butyric acid, the proportion of which increases to more than one per cent. in rancid butter. This increase is caused by partial decomposition, especially of the glycerides of the volatile oils—a more or less spontaneous phenomenon at which an important oxydising takes place. By numerous experiments, Duclaux shows that the oils are constantly absorbing oxygen slowly in dark ness faster in moderate light, and very quick in bright sunlight, which also fades the surface of the butter. In consequence of this absorption of oxygen in sunlight, a considerable increase of weight is observed in the butter, while now volatile acids are formed, even to the amount of two per cent., the fatty acids changing into formic acid. To avoid these changes it is important to protect butter against the influence of oxygen (air) and sunlight. Even immediately after churning Duclaux thinks precaution should be taken. By the fermentation of the cream during its preparation for churn-ing, carbolic acid is developed which drives out the oxygen from the churn, and care must be taken not to introduce oxygen at later stages. Thus, washing the butter with water rich in oxygen should be avoided, and, if necessary at all to wash it, only spring or well water, or even water artificially charged with carbonic acid, should be used, while surface and rain water is absolutely to be Butter should, under no circumstances, be exposed to sunlight.

## SHALL WE QUIT SHEEP?

HY, no, of course not. Quit sheep?

No more than we shall quit cattle, horses, hogs, wheat, or any other staple farm product. Texas has quit to an alarming extent, and many other sections, but they have done so rashly, and will rush back again. It is the old, old story of history repeating itself, and the damages, to the enduring the benefits. "But wool is so low, and promises to be for a long True, and may be for ever and ever but wool is only one profit from raising sheep. Count them all up, and figure close. A small aggregate profit on sheep beats wheat, with all its labours, expenses and uncertainties, its wear and tear on land, on men and women, teams and machinery. The chances on sheep are sure for more profits. though small in cash immediate. They come twice a year, a fleece, a lamb. As auxiliaries to good farming they are working all the time, day and night. The chances on wheat raising are desperate if debts are to be paid. The raising of cattle and horses are slow and expensive ways of making money. It takes three or four years for them to come to market. They often eat their heads off before they are sold. A sheep comes up every six months and pays its bills; it does not die in debt. Though the profits are small they come around often. Small profits. if safe, are better than larger ones, if risky. Yes, we are going to raise sheep. We can't do better. If we quit, it will be because we have to. We shall not be scared out of sheep. Some are scared now. They are ys ready to run. They are like sheep, afraid of everything they see that looks funny.—Journal of Agriculture.

## A SUBSTITUTE FOR THE SILO.

HE English farmers have adopted a system of stacking green fodder such as clover and grass, and stretching wires over the stacks which are drawn very tight by a simple contrivance resembling a small windlass. Lord Powerscourt in a recent letter to the London Times makes the following comments.

It is not necessary to build silos. Take the wet hay and pile it up into stacks in the fields where the stock are to be wintered pressing it well down by the trampling of labourers, and make stacks of some seven or eight feet high, and if there are brewers' grains to be had, put in a layer of them half way up, or near the top. When the wet hay is well pressed, put eighteen inches or two feet of any rough weeds or fern on the top, press that down firm, then get pieces of strand wire long enough to cross the top of the stack, and tie heavy stones or weights to the end of the wires, hanging down on each side, so as to weigh the stack well, and leave it so till the winter, when the silage can be cut and thrown down in the fields for the cattle. There will be some waste on the outside of the stack, but most of it will be good silage, and the wet hay is of no use as it is, and may in this simple and inexpensive manner be made into good wintering for horned stock, sheep or farm horses. Lord Cloncurry has tried this in the County Kildare for the last two or three years with great success. I saw his stacks last year, rom 30 to 40 yards long, and 8 or 9 feet high. It will heat to some extent, but that does it no harm, and if it is well pressed, it will not take fire. Of course, there would be danger of that if not pressed enough. Whether our more severe weather would

allow the convenient use of such stacks is a question for practical farmers to consider; we see no other reason why they can not be made useful here. - Mass. Ploughman.

## HARVESTING FRUIT.

HE question as to the proper time to harvest the apples in any particular orchard should be settled by the owner, and the decision should be made after a careful examination of the condition of the fruit; his judgment should not er, and the decision should be made be warped by the fact that one or a half a dezen neighbours have commenced to harvest their fruit, because the location and the apples, when opened, should be all as near character of the soil will often make from a of the one size and colour as it is possible to

week to week to time of ripening and the bound on a light, warm I w. But to gather his apples at least a week earlier than if on a cold, heavy soil, and if the land has been kept well cultivated during the season, the fruit will mature earlier than it the land is n grass. When an apple is fully matured it should be picked from the tree, because, if not picked, it will be very likely to drop, and thus, as a rule, be so bruised as to destroy its keeping qualities, but if it does not drop it becomes overripe, which means the com-mence ment of decay. The fruit grower who has a good, cool fruit house to stope his apples in, may begin to gather earlier than one who has to store in a warm barn, or leave the apples in barrels under the trees, because there is often a warm period during the first few weeks in October which does great injury to apples that are exposed to sudden changes of weather; an even temperature near the freezing point is best adapted to the

long keeping of both apples and pears.
Having decided when to commence gathering apples, the next important point to consider is the manner of gathering and sorting. It is very safe to say that the value of the apple crop would be largely increased if more care was taken in handling the fruit; every apple should be picked from the tree and carefully deposited in a basked lined with cloth, and when the basket is filled the fruit should not be carelessly emptied from it into an empty barrel, but taken out by hand and assorted into three qualities; the first to be carefully packed in good clean barrels for shipping, or a select home market, the second quality also to be put up in barrels, to be sold for early winter use, the third quality to be stored for feeding to cattle, or made into cider. No apple that has fallen from the tree should ever be put with the first quality, however well it may look, for the chances are that it will have received a bruise that will cause early decay. For home use fruit should be put up in square boxes that hold about a bushel, and the cover of each box should be hung on hinges, so when the apples are wanted one or more can be easily taken out and the box left shut tight from the air. Barrels are entirely unfit to keep apples in for family use.

## APPLES IN NOVA SCOTIA.

L. WAKEMAN, in a letter to the Cincinnati Times, during a trip through Nova Scotia, says of the fam-

ous Nova Scotia orchards: I have more faith, however, in Nova Scotia apples than in her gold. The Annapolis and Gaspereau valleys contain about 600 square miles of cultivable land. At the resent time one-tenth of the area, or nearly 40,000 acres is planted with apple trees. Almost a half-million barrels of Gravenstein, Baldwin, King of Tompkins, Nonpareil, Russets, Ribston Pippins and other varieties of apples are now annually yielded and exported. Over three-fourths of the area is yet young trees. From 5,000,000 to 10,000, 000 barrels of apples will certainly be raised annually in these two valleys whihin ten years' time. They are proven to be the finest and hardiest varieties in the world, and the demand is never met. In the fail, American buyers fill the region, purchasing in 1,000 barrel lots. Experience has proved that the European markets are just beginning to know this fruit region, and, as every barrel which can now be secured is taken there, th competition between American and English buyers will always insure the Annapolis Valley apple raisers from \$3 to \$5 per barrel in gold. The method of English shipment is highly interesting and is additional good luck to the Nova Scotia apple farmer. He has only to pack his apples carefully, stencil and brand his name upon it, mark it Doe," or "John Roe, London," and deliver it at any depot of the Valley railway. If he send 100 or 1,000 in this way he has no fur-ther trouble or anxiety. His apples go direct to Halifax. There steamship agents, who are practically agents of London buyers, care for them. In three weeks' time the apple grower receives by mail exchange on London for the apples he has left at the station plat-form and the price is the highest paid in the world. These conditions are giving a great impotus to the apple culture in this wonder-ful valley. About torty trees are planted to the acre, and at maturity yield from three to seven barrels of apples, for which never than less \$3, and often more than \$5 per barrel is secured. The whole valley is a vast orchard and every farmer is rich, or rapidly getting

On every apple farm-for the extent culture has long since passed the orchard area with each apple-grower—from 100 to 10,000 new trees are set out each year. At this rate of development and with the con stantly increasing scientific care and atten-tion, the possible limit to apple growing in the Annapolis and Gaspereau Valleys is something startling to contemplate. Six hundred square miles, or 384,000 acres of land are available. All of this tract is valued at from \$50 to \$200 per acre. It is almost impossible to purchase at any price The region may be justly regarded as the very richest in the world, actual results, conditions and possibilities being considered. In wandering through the valley an interesting reflection came to me, and I wondered whether it might be so to others. That was that wherever apples grow, a kindly, sturdy and progressive people are ever to be found. Think it over and the idea grows upon one. Great houses, greater barns, fine stock, ample competence, large provision for all season and needs, sturdy ways, sensible thrift, genial neighbourings, and all that dear procession of countryside life that has vigour and cheer, with autumn's noble housings and stores and winter's large and generous de-lights, marshal the thought in memory's bravest trappings.

## BARRELLING APPLES.

THE president of the Ontario Fruit

Growers' Association, Mr. A. D Mc. Allan, makes the following suggestions on this subject: Choose a solid place on the ground and place a barrel upon solid piece of plank. Lay the first course of apples with the stem end down. The packer should not take special samples for this course, but just take them as they come, and place them so as to make a solid row on the bottom. The next row also should be put in carefully but the blosom end down. The barrel should be carefully snaken down on that solid plank after each basketful. When the packer comes to the top of the barrel he evens them off according to the variety. One variety will press down closes than another, and that is where a little judgment and experience is required. A man must know every variety he is packing, in order to know how many to put in the barrel; whether he will fill it to the chine, an inch above the chine, or even further Then the last row has to be placed so as to be in an oval position before you put the press on, with the stems up, so that when you put the press on they will press down evenly and level, and afterward on opening the barrel you cannot tell on which end you com-menced. This is a barrel packed properly, and it will carry, and carry thoroughly. If the apples before packing have been what we call sweated, and the best place to sweat apples is on the ground, they should f possible, remain on the ground for a week after being picked from the tree, they will carry much better. Of course in wet weather they are better taken into the barn floor or some other convenient place, but, as a rule,

cess, they will carry much better. Before packing, the first thing to do is to make up your mind how many grades you are going to have in a pile from which you are packing. There will be two grades at least, and the chances are not more than three. For instance, take a Baldwin grown on the inside of a tree, that is apt to be rather green, that will be one grade. All the medium-sized apples, have them all the one size as much as possible, and pretty high coloured, that is another grade. A barrel of

they should remain for a week or ten days after being picked; the skin toughens in that

time. I find quite a difference in the Northern Spy, which has such a tender skin; in

places where they are left on the ground to

toughen and get through this sweating pro-

have them. If you pack your barrels in that way, and brand them accordingly, the buy-ers in Britain and elsewhere will soon get to know that that brand represents well-selected, honestly packed apples, and the result will be that they will pay a fancy price for it. The price is not so much of a consideration with them as it is to get the very best article.

## QUINCES ON APPLE STOCKS.

CORRESPONDENT wishes to know whether he can grow quinces on apple stocks by the root grafting process, and whether the quality of the fruit would probably be affected? Yes, he can grow the quince in this way. The so-called Meech Quince has been propagated by tens of thousands in this way. Whatever effect this mingling of blood might exert upon stock or graft can hardly be known, but the effect on the fruit would pro-bably be slight. The quince is generally and readily grown from cuttings in moist soils. Its tendency is to make a mass of fine fibrous roots. The apple makes no such mass, and if its roots were the sole dependence of graft and stock the growth would probably be affected. But as both stock and graft are affected. But as both stock and gratt are planted below the surface of the ground, the quince would eventually root, the apple stock acting as a support or starter till the quince roots were produced. This is the result in the case of Dwarf Pears on quince stock. When the pear stocks root above the quince, the trees become standard pear trees, and the quince stock finally dies or be-comes so enfeebled as to be of no further use, because, perhaps, their natural rooting place is near the surface. Whether this would be the final result of the apple and quince union I do not know, and I hardly think the practice has been tried long enough to de-termine. My experience with pears on apple stocks is that they make a feeble growth for a few years and finally die. The neompatibility is fatal.

Time and experience with the uncongenial affinities of pear and apple has tended to materially modify the Dwarf Pear craze, so popular twenty-five years ago, so that its most zealous advocates are seldom heard from now, and some have so far revised their opinions as to declare they would not plant them as a gift. In conclusion, I think it safe to say that the practice of root graiting the is only admissible in case of rare or scarce varieties. — Garden and Forest.

## CHRYSANTHEMUMS.

EFORE the appearance of the chilly nights of late September it is well to have all Chrysanthemum plants under cover, as the cold nights, following the warm days, check the young growth and prepare the way for mildewed foliage and poor flowers. While it is a wise plan to keep the plants in the open air as long as possible, they should be securely housed in a light and airy structure before there is any possibility of frost, for although the plants are quite hardy the young buds are very tender, and often a slight frost. when they are just beginning to show, will ruin a whole crop of flowers. The house should be one that will admit an abundance of light and air, for good plants cannot be grown if either of these is wanting. When placed in the house the plants should have plenty of room—that is, they should not touch each other, but stand so that there may be a free circulation of air about them and as soon as possible after they are under cover measures should be taken to prevent mildrew, which otherwise may spread rapidly, to the great injury to the plants.

The most efficacious means of preventing mildew is fumigating the house with sulphur, but the grower should be warned that he is dealing with a very dangerous element if carelessly handled. Ordinary sulphur when evaporated is not injurious to the plants, but when heated above a certain degree it is con verted into a very different thing—sulphurous acid—which is exceedingly destructive Our method of applying the sulphur is by evaporating it over a small oil stove in a common two-quart agate ware stewpan, filled "about one-third or one-half full of flowers of sulphur. The wicks of the lamp are so arranged that the sulphur will boil without burning. As long as it does not catch fire it is safe, but the moment it does so the sulphurous acid is formed, and the house will be quickly filled with the choking, irritating gas, and the plants will appear as if en scorched by a severe from thev had When simply boiled the sulphur is thrown off much like steam, and will crystallize in very minute particles upon every part of the plants, thoroughly eradicating every particle of mildew; and if this is repeated occasionally the plants can be kept entirely free from

As soon as the buds get large enough to be easily handled plants should be disbudded, using a penknife with a small, sharp point. No set rule can be laid down for this opera tion, but generally speaking the plants set more buds than can be brought to perfection and the supurfluous ones should be removed if large and perfect blooms are wanted. Many varieties will form a full, strong bud at the extreme end of each shoot, with several smaller ones clustered close beneath it. These latter should always be removed in the largeflowered kinds, as they greatly interfere with the development of the bud that is to remain, and when a specimen bloom is wanted, not only these, but every other bud on the branch, should be taken away, so that all the energies of the branch can be devoted to developing the one left at its extremity. Soon after the plants are housed they need stimulating by some quick fertilizer to bring the blooms to perfection and keep the foliage green and fresh. Liquid manure made by leaching stable manure will answer all pur poses, and should be applied rather weak, and quite often while the buds are forming. In fact, once a day, when the plants are badly pot bound, will be none too often if it is applied in a weak state.

Ordinary, artificial heat will not be needed in the house until the nights become cold enough to freeze or during cold, rainy weather, when a little heat will be found useful in drying the air. - Garden and Forest.

## BREED VS. FEED.

AJOR H. E. ALVORD in the American Cultivator, thus defines his exact position on the above controls. is a curious fact that in quoting a man in print, and especially upor some disputed agricultural subject, often made to say a thing was black, when he has tried hie best to express his opinion that it was white. This thing would be very exasperating if it were not so common.

In several places lately I have seen Dr Sturtevant and others, as well as myself, quoted as stating broadly that it did not make any difference what was fed to a cow, as the milk could not be changed by the food. I hope few people have been led to believe that the persons named ever made such ab-

What I have said and written upon this point has been merely a repetition of the general truth, which is abundantly sus-tained by experimental evidence, that the more effect than the feeding breeding has upon the quality of milk, if not the quantity, which is produced by any given cow. If a cow, as a result of a long line of breeding in a particular direction, has fixed upon her and her dairy products the characteristics of her breed and family, these will never be materially changed by the way she is fed, or even neglected, so long as she remains healthy. If bred a butter cow and inheriting this trait, she will always be a butter cow. If by nature her milk is poor in butter fats, it will always be so, relatively, no mat-ter how she is fed. If by inheritance a large milker, a generous yield will be her habit even upon scanty rations; and if naturally a small milker, no quantity of feed will profit ably increase her product. Now these state ments, which are certainly well substantiated, are perfectly in accord with the wellknown increase or decrase in milk or butter, or both, from a given cow as the direct result of a change in her feeding or other treatment.

Dr. H. P. Armsby, whom I regard as an

excellent authorty on this subject, has recently expressed his views admirably, in these words: 'The quality of milk which a cow can produe depends upon her breed and individualit, and in this sense, the quality of the mix is more dependent upon breed than upon feed. On the other hand the quality of mik which any given cow will produce is very argely dependent upon her feed." Other god authorities may also be quoted, I believe orrectly, as follows: quality of milk is most dependent upon breed." "The deposition by breed will preponderate." "he quality of the milk is mainly dependentupon the breed of the cow but not exclusivly." "If by quality is meant richness of milk, it certainly depends, primarily, upon the breed." "The good cow will give good mix on quite poor feed; the poor cow will give better milk on good feed than on poor, bu always a small mess of

than on poor, bu always a comparatively infeior quality. It may be regarded as a settled fact that every cow has he limit of capacity, both as to quantity and quality, or richness of milk. Beyond this limitine cannot go, and no feeding or treatment on force her beyond it. It does not require much observation to determine what this limit is and ascertain beyond what point food is wasted if consumed. In the well-bred annual the limit of possible production is much farther removed from average product than in a common cow hence, as a rnle, hghly bred cows can be fed highly with profit. While we speak of a cow being unable to debetter than her best, it is true that our cowe are seldom at their best
—rarely maintained at their utmost limit of production, and st it is generally easy, by some change or inprovement in feeding or care, to get direct results and prove that food does not affect product. The general tatement remains tue, however, that in the dairy cow breed is nore potent than feed, in determining the product and the profit of the animal

## ENSILAGE EXPERIMENTS.

PR THOMAS J. HUNT, assistant at the Agricultural Experiment Sta-tion at Chanpaign, Ill., has prepar-ed a reporton the silo in use at the University farm, and the results obtained with the essilage corn put in last year. The silo was a room 11 feet 8 inches by 16 feet by 9 fees high, in a barn base ment, one side wall of stone, the other three of brick. One wall contained two windows three feet square, aid the room had a doorway. These were made tight by means of boards. The walls of this room were raised five feet higher by neans of studding and flooring, making the silo 14 feet deep. The floor and the walls of stone were cemented, and a tight joint was made with cement between these and the boards above. The filling of the silo was practically continuous, and was done in three days, August 20-22, 1887, with 54,525 pounds, twenty-seven and

a quarter tons of green corn.

Feeding the ensilage was begun March 10, 1888, by mixing it with twice its bulk of dry cut corn fodder, not corn stover, which the stock had been chiefly fed during the winter. The cattle soon learned to like the ensilage, and after the first week it was fed without mixing with any other substance, and was eaten rather better, on the whole, than corn

fodder had been previously.

Daily weights of ensilage fed to the stock were not taken. From what weighing was done, it is estimated that from March 17 to April 30, 700 pounds on an average were fed daily. During this time the following cattle

were given ensilage:—
March 17th to April 30th, two aged and five yearling bulls, one herfer and one dry cow were fed ensilage, hay and grain; eight milch cows, ensilage, straw and grain; ten dry cows and five heifers, ensilage and straw.

March 17th to April 16th, three steers

were fed ensilage and corn. April 13th to 30th, four heifers and two dry cows were fed ensilage and hay. It will thus be seen that for 45 days 37 head were, on an average, fed 700 pounds, about 19 pounds each, daily. Of these, 15 had ensilege and straw only; 8 had ensilege and straw with great, usually four quarts bran added daily, and 9 engilege, hay and grain. All thrived exceedingly well, con-

idering amount of food eaten. We have not room to quote the full de-tails given; the report closes with the following summary of the conclusions reach-

ed:—
1. The yield was not more than seven tons per acre of green corn, or two and one-sixth tons of corn fodder. 2. It required seven men and three teams three days to fill the silo with twenty-seven tons of green corn.
3. Difficulty was found in obtaining even-

ness of distribution in the silo and, consequently, eveness of settling.
4. Twenty-one pounds of green corn occupied a cubic foot when put into the sile and shrunk one-fourth in volume, weighted with

fifty pounds to the square foot. Size of silo desired may be approximated by allowing two cubic feet a day for each

animal. 6. With a sile of stone, brick and cement the ensilage rotted at the sides and top to the extent of one-third the entire amount. 7. There is evidence for believing that this oss could be considerably obviated by building the sile of wood.

8. Thirty-seven head of cattle, fed fortyfive days on a moderate allowance of corn ensilage with other food, ate the ensilage somewhat better than corn fodder and thriv

ed very satisfactorily.

9. Five yearling Shorthorn heifers, averaging 895 pounds each, were given daily forty eight pounds of corn ensilage each, ate about seven eighths of it, and during fifteen days made an average gain of forty-nine pounds each.

10. Analyses of corn ensilage and corn fodder made from similar corn, show a loss in the ensilage of total nitrogen, albuminoid nitrogen and soluble carbohydrates, and an increased per cent. of non-albuminoid nitrogen, ether extract, crude fibre and ash. 11. The fresh ensilage contained 1 per cent of organic acids, .065 volatile and .035

12. Ensilage was found to contain yeast and bacteria ferments. Neither from a ch ical nor from a biological standpoint is there reason for believing that the ensilage is made more digestible by their action.

## SALT FOR WHEAT.

HE question of how and where to apply salt to wheat as asked in a late number of the Farmer. I have used salt twice and will give my experience.

The first time I tried applying salt

as a fertilizer I applied in the fall, getting the saltin a good tilth by ploughing and harrowinguntil ready for the seed. I than sowed proadcast as evenly as possible, intending to use about eight or ten bushels to the acre. I found it quite a task to sow broadcast in this way, but sowed about four acres. After that the wheat was sown with a drill, using five pecks of good seed per acre. The soil I should have said was a good prairie loam and was in good tilth when the seed was

I paid very close attention to the crop and never could see that any special benefit was received, unless it was in making the straw a little bigger. The yield was no better than on the rest of the field. The next trial I made I sowed the wheat in the fall, preparing as usual and sowing in good season. Early next spring, as soon as the condition of the soil would admit of doing the work, I sowed about six bushels of common salt per acre on about three acres, taking care to scatter as evenly as possible. I am satisfied that this application paid me very well. Not only did I secure an increase yield, but the quality of the grain was noticeablg better. Of course one single experiment in this way should not be regarded as conclusive, yet others who have experimented more largely. report that applying in the spring is the better plan and for this reason: Salt is easily dissolved in water and if applied in the fall, a considerable portion is wasted before the plants are able to derive the benefit. If the application is delayed until spring, the wheat plants have started to grow, and are in a

ture and soil. So that my advice would be to defer the application until in the spring and then sow broadcast as evenly as possible, using from 8 to 12 bushels per acre, depending somewhat upon the condition and character of the soil. Make a small trial first and see if it pays before investing too heavily .-Corr. Indiana Farmer.

## POTATO BLOSSOMS.

FTER repeated experiments to determine the fact in his own mind, the editor to the Mark Lane Express advises farmers to cut off potato blossoms as soon as they appear. The ball, or true seed of the potato, which results from the blossom, are not only un-necessary of the formation of the tuber below, but are a prejudical strain on the plant. He says :--

"I have tried it again and again or a large scale—three rows left and three rows cut and the results have more than satisfied me. It stands to reason that the plant which is propagated in acknowledged agricultural economy from its budding root stem, must spend its energies and powers unnecessarily in the production of flowers and seeds which are of no economic value whatever."

## THE ONION.

IN answer to the inquiries of a correspondent we would say that onions should be pulled when the tops begin to turn. They are left in the field, in rows, until they are dry enough to permit the tops to be easily removed. It is sometimes necessary to stir these rows. When dry remove them under cover, where it is dry; and they ought to be placed on slatted structures. When kept through the winter, care must be taken to keep them where it is both cool and dry. They should be just kept from freezing, for if the temperature is too warm, they will sprout. Onions are sometimes kept in the field by covering with dirt as you would roots. The dirt is placed on them just be-fore freezing, and when the covering is somewhat frozen it is covered with something, just as we have recommended for potatoes. --Western Rural

## STORING CELERY FOR WINTER.

MALL quantities for family use can be stored in shoe or other boxes, by first boring inch holes four inches from the bottom at each end and side of the box. Turn the box on end, and pack the celery in layers, the narrow way of the box. To each layer of celery in position sprinkle over the roots only enough earth to mulch them well. Continue until the box if fulls When you set the box down shake or jar the box to settle the dirt among the roots of the plants. Then take the watering pot with nozzle and pour water through the auger holes in the ends until the soil is thoroughly saturated and 'tis done. The box can be set in any convenient niche of the cellar, and only needs occasional watering (always through the auger holes) to have a supply of crisp tender celery at short notice, without the trouble of grubbing in the frozen ground and exposing both yourself and the whole lot of celery in the trench. -Orchard and Garden.

## EGGS FROM DIFFERENT BREEDS.

AYS the New England Fancier: A correspondent who has taken the time and trouble to keep a record of the number of eggs laid by the different breeds in his possession during the past year, reports to us as follows under date of August 1st:—!
Bantams—sixteen to the pound, ninety per

nnum.
Polish—nine to the pound, 125 per annum. Hamburgs-nine to the pound, 150 per an

Legorns-nine to the pound, 160 per an-Black Spanish-seven to the pound, 140 per annum.

La Fleche-seven to the pound, 130 per

annum. Plymouth Rock-eight to the pound, 150 per annum. Houdans-eight to the pound, 150 per

Black, White and Buff Cochins-eight to the pound, 150 per annum. Dark Brahmas-eight to the pound, 120

per annum. From the above it is easy to see the folly of selling eggs by the dozen; why don't our granges unite in demanding that eggs be sold y the pound asthe custom is already in Cal-

ifornia.

THE HOME IN WINTER. TAKE home as cheery as possible, it is the only heaven we will enjoy this side of the grave. Not only must we do our utmost to be affectionately disposed one toward another, but to exhibit our love by our anxiety to make all as comfortable and happy as possible. Are the windows tight and free from draft? Will the doors close, the latch catch and so prevent the ingress of cold when it is not wanted? Ventilation is good in its place but there are proper ways of securing fresh air without cracks, crevices, and openings, at every window and door. Many a cold and Many a cold and much rheumatism and other sickness may be avoided by a little attention to these things now. Paint used now retains its colour and otherwise lasts longer and better than if put on in the heat of summer. Rooms not papered may be made more cheery all winter if whitewashed now. The roofs and clap-boarding can be examined and repaired to advantage. Cellars need to be cleaned out, and the doors and windows looked to. These are but a few of many suggestions that might be offered to the men, who love to make their homes comfortable and pleasant. and their wives and children healthy and happy. Health follows happiness much more closely than we imagine and it is these little deeds of kindness, little words of love that make our earth an Edan like to that

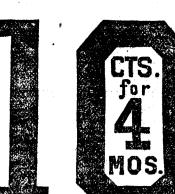
## DIPHTHERIA FROM THE CELLAR.

COULD not understand why that entire family of seven children should be stricken with putrid diphtheria till I had occasion to go into their cellar," a friend said who had been summoned to help care for the sick and dying children of a neighbour.
We always thought the Wrights, with

their trim, whitewashed fences and out-buildings, their neatly kept dooryard and garden, the evident constant warfare against filth and slatternliness in any form, the most intelligent and cleanly of families in our community, and I wondered what possible breeding place for malignant diphtheria could lurk about that home, till I went into the cellar. When I opened the stairway door a horrible stench of decaying vegetables and tainted brine rushed up from the unventilated, loathsome pit below, that they When I opened the stairway call cellar. The air was so heavy with mould and stagnant impurities that the flame of the candle I carried flickered and flapped over, as though a weight had been laid on it.

"Hardly had I stepped from the bottom stair, before my feet struck a slippery, slimy chute of rotten pumpkin, and I went down into the dreadful mush that sent out its pestilential whiffs from the very depths of its nutrefaction. The caudle still burned, and after hastily rising from this unexpected tobogganing across the cellar bottom, I held the sickly flame high and low, scanning well that breeding nest of diphtheria and other fearful terms, before cutting the slices of salted pork, for which I had been sent to bind upon the poor little, swollen, choked throats upstairs.

"Walls, green with mould and fungi; decayed and decaying vegetables everywhere; a slosh of rotted apples oozing their pungent juices from the bloated staves of a dozen barreis, a great bin of frozen, then thawed, pota-toes, that to stir meant development of gas, powerful enough to run an electric plant if much better condition to take up and use the odour is power. Under the stairs a heap of the cow will pay you no better. Still the plant food as it is made soluble by the mois- pumpkins had been stored in the late autumn, old cow will bring something, even if she is



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that decaying bloat—months before—had hoisted and rolled apart, some of the mush-ing, sliding spheers falling directly in the pathway and making the slippery chute that had unbalanced and mired me; and in every corner putrefying stacks of turnips and cabbages sending out their penetrating loath-

some breaths.
"The cellar was as dark as a coal pit, the little three-pane light under the dining-room windows being buried under the winter bank-ing that late May still found uncovered. The gases and stagnant air, thick with dreadful odours and disease germs, had no outlet of escape from the cellar only by stealthily filtering through every possible cranny and seam of the heavy timbered ceiling into the living and sleeping rooms overhead, and by strong rushes up the stairs whenever the opening cellar door stirred a current upward." And still those parents wondered why their seven young children, whom they thought to cherish and protect from every harm, should be stricken with diphtheria, and called it one of the most mysterous of God's providences when they were called to lav two of their darlings under the sod .-Clarissa Potter in the Housewife.

#### COMMON SENSE ABOUT COWS.

KNOW a cow, of no particular breed, now fourteen years old, which in her prime made fourteen pounds of butter a week in June, and a proportionate quantity the remaining months of the year. She gave milk at two years old, went farrow the next year, being in new milk every year since until this year; is now farrow, and will go to the butcher next year, because it is not thought advisable to keep a cow beyond this age. She never knew what it was to be hungry; has access to salt at all times, with plenty of water; is never forced, having nothing but her pasture in summer, and in winter never more than six quarts of meal a day (generally corn and oats) with roots (usually potatoes) and cornstalks or hay, and a run at the straw stack through the middle of the day, unless it be too stormy, then she is foddered in her stable.

Of her calves, her heifers are as good milkers as herself, her steers make good beef cattle, and all are as tractable and docile as herself, all being treated with the same consideration. Perhaps one farmer in a hundred is able to keep pure blood of whatever breed his fancy may dictate, and such a farmer is a boon to his neighbourhood; but the ninetvnine must be content with what they have. Their success lies in making the best of everything in their hands. Let these farmers breed to the best they can afford, of course, but let them take as good care of their inferior stock as they would of thoroughbreds, and mark the result. To the gook food and warm shelter let them add the currycomb and brush; exact kindness of their hired help in their care; and in a few years they will be as proud of their stock as the neighbour of his thoroughbreds, and in most ways they will bring just as good return, without that heavy expenditure which the ninety-nine cannot afford. — Amelia Louise Smith, in N. Y. Tribune.

## BUTTER OR BEEF?

HAT does it cost to make a pound of

butter or a pound of beef? know exactly, but it may be well to compare the relative cost of each. For comparison I will take a good steer and a good cow, each weighing 900 pounds, and the time the first of May, the cow being "fresh" and the steer "thrifty." The cost of feeding I will call the same for each, though I think the steer would complain if restricted to the cow's rations in winter. Having never fed steers through the whole winter, I am not certain what increase to give the steer for the snmmer months, but will put it the same as for the winter, say 300 pounds, making 600 pounds for the year. When I was fooling with beef I thought an average gain of 300 pounds per head was doing pretty well, and some feeders did better than that; more did worsa. The cow will give 300 pounds of butter and a calf as her dividend for the year. The steer 600 pounds of beef. The cost being the same, which paid the best? The cow and I figure it out this way: For the past year in the Baltimore market the best beef hos not averaged over 5c. per pound; 600 pounds of beef at 5c. is \$30. 300 pounds of butter at beef at 5c. is \$30. 300 pounds of butter at 25c. is \$75; the difference is just \$45. "Yes," you say, "but you have left out of the calculation the gain in price of the original 900 pounds." That's so. I will call it one cent per pound, which is too liberal in these times. Deduct this \$9 gain from the \$16 difference in favour of the cow, and the lower \$26, which is exactly the original it leaves \$36, which is exactly the original cost of the steer, calling it worth 4c. per pound. "But you have got to milk the cow every day." Yes, Sunday too, and have got to set the milk, skim off the cream, ripen it, get it to the right temperature, churn it, work the butter, and sell it. It makes you tired to think of all this work, don't it Well, the \$36 will help rest you. friend, hold on awhile; we are not done with our calculations yet. You were afraid I would forget the gain on the cost of the steer, and at the same time you forget some items in favour of the cow. I will suppose you are farming for a living and went to increase the fertility of your farm. That is one reason you feed steers, isn't it? You get the manure from your steer and I get it from my cow, and if you claim that the steer manure is the richest, then it is because you have fed it more feed than it can digest, and you must charge it with more cost of keep. But if you are willing to put it the same as the cow's 1 will allow one to balance the other just for comparison only, as I claim that the cow's manure is richer than the steer's because she does not take out as much nitrogen from the food. Well, we will say the manure account is eyen. Now you have sold from your farm 600 pounds of meat with all the nitrogen and phosphoric acid that amount of beef implies. I have sold 300 pounds of butter, which contains none of the farm's fertility. I think I am ahead here. Your steer is gone and you have got to run the risk of replacing him with one as go and this is an annual risk, while I still have my cow. I also have an extra scrip dividend in the shape of a calf, which is worth, if a

heifer and from a registered sire and dam,

from \$15 to \$30; if from a grade cow by registered sire \$10; if a bull calf and a grade,

what it will bring for yeal. I am not quite done yet; I have all the skim and butter-milk, which will make yeal or pork; I get weekly cash returns, while you have to wait

a whole year before you see your money, and

then you don't see much. I can sell poultry,

eggs, fruit, etc., to my butter customers when I go to town, but you can't sell "a few" of these things because it won't pay

you to "hitch up" especially for that purpose. There is one cow item I have purposely

left out and that is the value of the old cow

for beef. This need not be considered at all. or if so don't let its consideration influence

you on getting a big cow, thinking you will get your reward in the end. Would you get

much profit in feeding a steer for eight or

ten years? No. Then the extra weight of

small, and the cash received may go toward paying for axle grease, mending harness, etc. But always leave it out of your calculations about good butter cows; the butter will pay for feed, care and cow.—A. L. Crosby in Nat. Stockman.

## AN OLD STORY,

But It is Good Enough to Bear Telling Once More.

"Bill wuz old Jedge Hiram Cadwell's oldest boy—you recollect the Cadwells—used to live on the toll road near the cemetery. Old Jedge Cadwell wuz about ez shif'less a man ez l ever see, but Bill had a great bizman ez l'ever see, dut bui had a great diz-ness head—calc'late he must hev inherited it from his mother, who come of the finest stock in Hampshire county. When he wuz a boy Bill wuz always tradin' an' swoppin', an' I s'pose he started out in life with more jackknives than 'd' stock a store. An' Bill preserved in manhood all them talents which he exhibited in youth. Whenever you met a man 'at looked ez if he'd been run through a sieve you'd feel mighty safe in bettin' that he'd been havin' business dealins with Bill

Cadwell. 'One day Bill came into Eastman's store an' aliowed as how he'd be powerful glad to git a knittin' needle—his wife wanted one. h

said.
"'Mr. Cadwell, sez Eastman, 'a knittin' needle will cost you jest 1 cent.'
"Bill looked kind uv surprised like, an'

sez: 'Knittin' needles must hev gone up sence I come in fur one last winter.'
"'Wall,' sez Eastman, 'after payin' freight an' one thing an' another I can't afford to let knittin' needles go for less 'en a cent

apiece."
"Bill didn't say anything fur a minnit or
two, but after lookin' out uv the door at the
scenery he turned round an' rea: 'Look scenery he turned round an' sez: 'Look here, Mr. Eastman, I tell you what I'll do;

I'll trade you an egg for a knittin needle.
"Eastman shook his head. 'Why not?" sez Bill; 'you don't suppose 'at a darned old knittin' needle is wurth as much ez an egg

do ye?'
''I never heerd uv anybody payin' freight on hens,' sez Eastman; he wuz the most sarcastic cuss in the township, Eastman wuz.
"'No, nor I never heerd uv feedin' knittin' needles,' sez Bill; 'it don't cost nothing to raise knittin' needles.' "Well, Bill an' Eastman argued an

argued for more'n an hour about hens an' knittin' needles an' things, until at last Eastman give in an' sez:—'Wall, I s'pose I might jest ez well swop ez not, although I hate: o let anybody get the advantage uv me.' So Eastman give Bill the knittin' needle and Bill

give Eastman the egg.
"But when Bill got to the door he turnt round an' come back again an' sez:—' Mr. Eastman, ain'tit the custom fur you to treat when you've settled with a customer? You an' me hev had our dispute. but we've come to a settlement and an understandin'. Seems to me it would be the harnsome thing for

you to treat.'

"Eastman didn't see it in just that light,
but Bill hung on so an' wuz so conciliatin'
that finally Eastman handed out a tumbler

an' the bottle o' Medford rum.
"'I don't want to seem particular,' sez Bill, pourin' out half a tumblerful uv the liquor, 'but I like to take my rum with an

egg in it."
"Now, this come pretty near breakin'
Eastman's heart. He hed laid the egg on a
shelf behind the counter, an' he reached for
it an' handed it to Bill, sayin': 'Wall, I'm in for it, an' there's no use ov kickin'.' Bill broke the egg into the rum, an' lo an' behold, it was a double yelk egg! Gosh!

but Bill was excited. " 'Mr. Eas'man,' sez he, 'you've been a

takin' an edvantage over me.'
"' How so?' asked Eastman.

"' Why, this egg has got two yelks."

"What uv that? sez Eastman.
"Well, simply this, sez Bill, 'that if you're inclined to do the fair thing you'll hand me over another knittin' needle."



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"Ah! the charms of the twenty livres?

as I should be ashamed to sell myself, I shall

"Well, Natalis, you shall come with me."
I am delighted to go with you, captain."
And if you choose to follow me you will

'I will follow you wherever the drum

"I tell you beforehand that I am going to

leave La Fère, to go aboard ship. You do not

"Good! you will cross it. Do you know that a war is on to drive the English out of

And in truth I had never heard tell of

Linois, "which is fighting for its indepen-

dence. For the last two years the Marquis de Lafayette has been making himself talked about over there. Last year King

Louis XVI. promised to send soldiers to help the Americans. The Counte de Rochambeau

is going with Admiral de Grasse and 6,000 men. I am going with him to the New World, and if you will come with me we shall go and deliver America."

And that, not to be long over it, is how I came to be engaged in the expeditionary force of Comte de Rochambeau, and landar

at Newport in 1780.

There for three years I remained far away

from France. I saw General Washington— a giant of five feet eleven, with large feet,

large hands, a blue coat turned up with wash leather, and a black cockade. I saw

the sailor Paul Jones on board his ship the

Bonhomme Richard. I saw General Anthony

I fought in several encounters, not without

making the sign of the cross with my first

cartridge. I took part in the siege of York-town, in Virginia, where, after a memorable

defence, Lord Cornwallis surrendered to

Washington. I returned to France in 1783.

I had escaped without a scratch; and I was

a private soldier as before. What would

The Comte de Linois came back with us. He wished me to enter the Regiment de la

Fère, in which he was to resume his rank.

But I had an idea of serving in the cavalry. I had an instinctive love of horses, and for me to become a mounted officer of infantry I

should have to pass through many steps,

very many steps!
I knew that the uniform of the foot-

I knew that the uniform of the footsoldier was a tempting one, and very becoming, with the queue, the powder, the side
curls, and the white eross belts. But what
would you have? The horse, the horse for
me, and after much thinking I found my
trade as a horseman. And I thanked the
Comte de Linois, who had recommended to
the his friend Colonel Letters and Linia

to his friend, Colonel Lostanges, and I joined

I loved it, this splendid regiment, and you will pardon me if I speak of it with a tenderness that is ridiculous perhaps. In it I served nearly all my time, thought much of

by my superiors, whose protection was never denied me, and who, as they say in our village,

ly in its dealings with the Austrian general, Beaulieu, that I am not sorry I left it. I

will say no more about it, but return to the Royal Picardy. No finer regiment could be seen. It became as it were a family to me. I remained faithful to it until it was disbanded. I was happy in it. I whistled all its functors and days could be far it for the second of the second o

its fanfares and drum-calls, for I always had the bad habit of whiseling through my teeth.

For eight years I did nothing but go from

For eight years I and nothing but go from garrison to garrison. Not an occasion offered itself for a shot at an enemy. Bah! Such a life is not without its charms for those who know how to make the best of it.

And besides, to see the country was some-

thing for a Picard picardizing as I was. After America, a little of France, while we

were waiting to cover step on the main roads

were waiting to cover step on the main roads across Europe. We were at Sarrelouis in '85, at Angers in '88, in '91 in Brittany, at Josselin, at Pontivy, at Plermel, at Nantes, with Colonel Serre de Gras, in '92 at Charleville, with Colonel de Wardner, Colonel de

Lostende, Colonel La Roque, and in '93 with

But I forgot to say that on the 1st of January, 1791, there came into force a law which

changed the composition of the army. The

Royal Picardy became the 20th regiment of

the cavalry of the line. This organization lasted till 1803. But the regiment did not

lose its old title. It remained the Royal

Picardy, although for some years there had been no king in France.

It was under Colonel Serre de Gras that I

was made a corporal, to my great satisfac-tion. Under Colonel de Wardner I was made quartermaster, and that pleased me

That day the men of my company fusil-

We were in garrison at Charleville when I asked for two months' leave, which was

laded my knapsack and I put on my sleeves the lace which could never rise to my elbow.

Colonel le Comte.

put their shoulders to the wheel for me. And besides, a few years later, in 1792, the Regiment de la Fère behaved so strange-

the Royal Picardy Regiment.

you have? I did not know how to read!

Wayne, who was known as the Madma

"Go and deliver America!"

not take your twenty livres.

"What is your name?"
"Natalis Delpierre."

go far.'

dislike the sea?

America!

" Not at all."

America?"
"What is America?"

No, the wish to serve my country. And

My name is Natalis Delpierre. I was born in 1761, at Grattepanche, a village in Picardy.
My father was a farm labourer. He worked
on the estate of the Marquis d'Estrelle. My
mother did her best to help him. My sisters and I followed our mother's example.

My father never possessed any property.

He was precentor at the church, and had a powerful voice that could be heard even in the graveyard. The voice was almost all I inherited from him. My father and mother worked hard. They

both died the same year, 1779. God has their souls in His keeping!

Of my two sisters, Firminie, the eldest, at this time was thirty-two; the younger, Irma, was twenty seven, and I was eighteen. When our parents died, Firminie married a man at Escarbotin, Benoin Fanthomme, a working blacksmith, who, however clever he might be, was never able to start in business on his own account. In 1781 they had had three children, and a fourth came a few years later.

pend for my living. I had to make my own way in the world. In my old days I could then come back to help them.

My father died first; my mother six months afterwards. It was a great blow to me. But such is destiny! We must lose those we love as well as those we do not love. Let us, however, strive to be amongst those that are loved when our turn comes to

My sister Irma remained unmarried. Neither on her nor on the Fanthommes could I de-

depart. The paternal inheritance amounted when all was paid to 150 livres—the savings of sixty years of work. This was divided between my sisters and me.

At eighteen I thus found myself with practically nothing. But I was healthy, strongly built, accustomed to hard work, and I had a splendid voice. But I did not know how to read or write. I did not learn to do so till later, as you will see. And when one does begin early at those things, the task is a hard one. I have always felt the effects of this in trying to express my ideas-as will appear clearly enough in what follows. What was to become of me? Was I to

continue in my father's trade? A hopeless lookout, indeed! And one I did not care to Something happened which decided my fate.

A cousin of the Marquis d'Estrelle, the Comte de Linois, arrived one day at Gratte-panche. He was an officer, a captain in the Regiment de la Fère. He had two months leave, and had come to pass them with his There were great huntings of the boar and the fox, with the hounds and withworld were invited, and many fine folks, to say nothing of the wife of the marquis, who

was as beautiful as any of them.

Among them all I only had eyes for Captain de Linois—an officer very free in his manners, who would speak with anybody. The idea came to me to be a soldier. Is it not best when you have to live by your arms, that your arms should be fixed to a solid body? Besides, with good conduct, courage, and a little by luck, there is no reason to stop

on the road, particularly if you start with the left foot and march at a good pace.

There are many people who imagine that before 1789, a private soldier, the son of a tradesman or peasant, could not become an officer. It is an error. With perseverance and good conduct, he could without very much trouble become a sub-officer. That was the first step. Then, after he had acted as such for ten years in time of peace or five years in time of war, he was in a position to obtain his epaulette. From sergeant he became lieutenant, from lieutenant captain.

Then—but hait! we must not go further than that. The outlook is promising enough!

The Comte de Linois, during the shooting parties, had often noticed my strength and activity. Likely enough I was not so good as a dog for scent or intelligence, but grand days there were none of the beaters who could teach me anything, and I scampered about as if my breeches were on fire. You look like a stout-spirited fellow,"

- said the Comte de Linois to me one day. 'Yes, sir."
- "And strong in the arms?"
  "I can lift 320."
  "I congratulate you."

And that was all. But it did not rest there, as you will see. At that time there was a curious custom in

in the army. The way in which soldiers were enlisted was this. Every year recruiters were sent out into the country places. They made men drink more than was good for them; and got them to sign a paper if they knew how to write, or to mark it with a cross if they did not. The cross was as good as a signature. Then they were given a couple of hundred livres, which were drunk almost as soon as they were pocketed, and then they were off to have their heads broken for the good of their country.

That style of proceeding did not suit me.

If I wished to serve my country I did not wish to sell myself to it; and I fancy that all who have any dignity or respect for themselves will be of the same opinion.

Well, in those days, when an officer went away on leave, it was his duty to bring back with him on his, return one or two recruits. And the sub-officers were under the same obligation. The bounty then varied from twenty to twenty-five livres.

I was not ignorant of all this, and I had

made quartermaster, and that pleased me more. I had had thirteen years' service, been through a campaign, and received no wound. That was a great advantage, as you may suppose. I could not rise higher, for, I repeat it, I could not read or write. And I was always whistling; and it is not quite the thing for a sub-officer to go about like a blackbird. Quartermaster Natalis Delpierre! That was something to be proud of—something impressive! And deep was my gratitude to Colonel de Wardner, although he was as rough as barley-bread, and it was "attend to the word of command" with him! my plan. When the leave of the Comte de Linois had nearly expired, I went boldly to him and asked him to take me as a recruit.

- You?" said he.
  "Me, sir."
  "How old are you?"
- " Eighteen."
- "And you would be a soldier?" " If it pleases you." " It is not if it pleases me, but if it pleases

are my reasons for doing so.
Since I have retired from soldiering I have often had to tell the story of my campaigns during our evening meetings at the village of

granted to me. It is the history of this leave

that I am going to relate faithfully. These

Friends have misunderstood me, or no understood me at all. Some have thought I was on the right when I was on the left, some that I was on the left when I was or the right. And thence have come disputes which have not ended over two glasses of cider or two coffees-two small pots. Above all, what happened to me during my leave in Germany they seem never to understand. And, as I have learned to write, I think it best to take up my pen and tell the story of my leave. I have thus set to work, although I am seventy years old this very day. But my memory is good, and when I look back I can see clearly enough. This recital is thus dedicated to my friends at Grattepanche, to the Ternisiens, Bettemboses, Irondarts, Pointefers, Quennehens, and others, who will, I

hope, leave off disputing on the subject.

It was the 7th of June, 1792, then, that I obtained my leave. There was then certain rumours of war with Germany, but they were still very vague. It was said that Europe looked with an evil eye on what was passing in France. The King was at the Tuileries, it is true. But the 10th of August was being scented from afar, and a breeze of republicanism was sweeping over the

country.

Had I been prudent I should not have asked for leave. But I had business in Germany, in Prussia even. In case of war l should find it difficult to get back to my post. But what would you have? You cannot ring the church bell and walk in the procession at the same time. And, although my leave was for two months. I had decided to cut it short if uccessary. All the same I hoped the worst would not happen.

Now, to finish with what concerns me, and

what concerns my gallant regiment, this is what, in a few words, I have to say:

First, you will see how it was I began to learn to read, and then to write; and thus gained a chance of becoming officer, General, Marshal of France, Count, Duke, Prince, like Ney, Davout, or Murat, during the wars of the empire. In reality, I did not get beyond the rank of captain; but that is not so bad for the son of a peasant, a peasant himself.

As for the Royal Picardy, a very few lines

will suffice to finish its story.

It had in 1793, as I have said, Monsieur le Comte for its colonel; and it was in this year, owing to the decree of the 21st of February, that the regiment became a demibrigade. It then went through the campaigns with the army of the North and the army of the Sambre and Meuse, until 1797. It distinguished itself at the battles of Lincelles and Courtray, where I was a lieutenant. Then, after staying in Paris from 1797 till 1800, it joined the army of Italy, and distinguished itself at Marengo in surrounding six battalions of Austrian grenadiers, who laid down their arms after the rout of a Hungarian regiment. In this affair I was wounded by a ball in the hip, which did not trouble me much, for it caused me to get my cap-

The Royal Picardy being disbanded in 1803. entered the dragoons, and served in all the wars of the empire until I retired in

Now, when I speak of myself, it is only to relate what happened during my leave in Germany. But do not forget that I am not a well-educated man. I hardly know how to tell well-educated man. I hardly know now to ten those things. And if there escape me a few expressions or turns of phrase that betray the Picard you must excuse them. I cannot speak in another way. I will get along as fast as I can, and never stand with two feet in a shoe, I will tell you all, and if I ask you to allow me to express myself without reserve, I hope you will reply, "You are quite at liberty to do so, sir!"

## CHAPTER II.

At the time I speak of, as I have read in history books, Germany was divided into ten circles. Later on new arrangements were the Rhine in 1806 under the protectorate of Napoleon; and then came the Germanic Confederation of 1815. One of these circles, comprising the electorates of Saxony and Brandenburg, then bore the name of Upper

This electorate of Brandenburg became later on one of the provinces of Prussia, and o districts, the district of Brandenburg and the district of Potsdam. say this so that you will know where to find the little town of Belzingen, which is in the district of Potsdam, in the north-western part, a few leagues from the frontier.

It was on this frontier that I arrived on the 16th of June, after traversing the 150 leagues that separated it from France. I had taken nine days on the journey, and that will show you that the communications are I had worn out more nails in my boots than in horses' shoes or wheels of car riages—or rather carts, to be more correct. I was not quite reduced to my eggs, as they sayin Picardy, but I had not saved much from my pay, and wished to be as economical as possible. Fortunately during my stay in garrison on the frontier I had picked up a few words of German, which came in useful in getting me out of difficulties. It was, however, difficult to hide that I was a Frenchman; and consequently more than a passing look was given to me as I went by.

With it was a weman, a tall, strong, wellbuilt woman, with a corsage with laced straps, straw hat with vellow ribbons, and red and violet banded skirt, all well fitting and very clean, as if it was a Sunday or holiday costume.

And it was a holiday for the woman, al-

though it was not Sunday.
She looked at me, and I looked at her look

ing at me. Suddenly she opened her arms and ran to wards me, exclaiming, --

" Trina !" It was my sister. She had recognized me. Truly women have better eyes for remembrances that come from the heart—or rather quicker eyes. It was thirteen years since we had seen each other. How well she had kept herself! She reminded me of our mother, with her large, quick eyes, and h black hair just beginning to turn grey on the temples. I kissed her on her two plump cheeks, reddened by the morning breeze, and I leave you to imagine what smacks she gave

It was for her, to see her, that I had ob tained my leave. I was uneasy at her being out of France now the clouds had begun to gather. A Frenchwoman among the Germans would be in an awkward position should war be declared. It would be better for her to be in her own country; and if my sister chose I intended to take her back with me. To do that she would have to leave her mistress, Madame Keller, and I doubted if she would consent. That was to be inquired

"How glad I am to see you, Natalis," she said; "to find ourselves together again so far from Picardy! It feels as though you had brought some of our native air you! It is time enough since we saw each

"Thirteen years, Isnta!" "Yes, thirteen years! Thirteen years of separation! That is a long time, Natalis!" Pear Irma [" I replied."

And there we were, my sister and I, with arms linked together waking up and down

"And how are you?" isked I.
"Aiways pretty well, Natalis. you ? " The same !"

"And you are a quartermaster! There is an honour for the family! "Yes, Irma, and a great honour! Who would have thought that the little goose minder of Grattepanche would become a quartermaster! But we must not talk about

"Why not?" "Because to tell everybody I am a soldier would not be without its inconveniences i this country. When rumours of war are fly ing about it is a serious matter for a French man to find himself in Germany. No 1 I am your brother, Monsieur Nothing-at-all, who has come to see his sister.

"Good, Natalis, we shall be silent about it I promise you. "That will be best, for German spies hav

good ears." "Do not be uneasy." "And if you will take my advice, Irma,

will take you back with me to France."
A look of sorrow came into my sister's eyes as she gave me the answer I expected,—
"Go away from Madanie Keller, Natalis when you will see and understand that I cannot leave her alone."

I understood this as it was, and I thought it best to postpone what I had to say. And then I ma resumed her bright eyes and sweet voice, asking me for the news of the country and our people,
"And our sister Firminge?"

"She is well. I have had news of her from our neighbour Letocard, who came to Charle ville two months ago. You remember Leto

"The wheelwright's son?" "Yes! You know, or you do not know that he is married to a Matifas!" "The daughter of the old woman at Fou

"Herself. He told me that our sister does not complain of her heal. Ah! they have to work, and work hard at Escarbotin They have four children now, and the last one—a troublesome boy! Luckily, she has an honest busband, a good workman, and not much of a drunkard, except on Mondays. But she has had much trouble in her time." "She is getting old."

"She is five years older than you, Irma and fourteen older than I am! That is some thing! But what would you have? She is a brave woman, and so are you.

"Oh! Natalis! If I have known sorrow, it has only been the sorrow of others. Since I left Grattepanche I have had no trouble of my own. But to see people suffer near you when you can do nothing—" My sister's face clouded again. She turned

the conversation. "And your journey?" she asked.
"All right. The weather has been good enough, for the season. And, as you see, my legs are pretty strong. Besides, who cares for fatigue, wher he is sure of a wel-

come when he arrives? "As you are, Natalis, and they will give you a good welcome, and they will love you in the family as they love me."

"Excellent Madame Keller! Do you know, sister, I shall not recognize her. For me she is still the daughter of Monsieur and Madame Acloque, the good people of Saint Sausieu. When she was married, twenty-I took care not to say that I was Quarter five years ago, I was only a boy. But father master Natalis Delpierre. You will think and mother used to tell us about her." Poorwoman," said

and what a mother she

work to take the place of his father, who died

fteen months ago."
Brave Monsieur

ean!"
He adores his

nother ; he lives only

or her, as she lives nly for him."
"I have never seen

im, Irma, and I am

inpatient to know

im. It seems that I

"There is nothing

"Then let us be

"Comealong, then."

"In a minute !-

How far are we from

"I will do it quicker

" No, on my horse's

And Irms pointed

o the carriole at the

Belzingen ?"



me wise under the circumstances, when a war was threatened between us and Prussia and Austria, the whole of Germany in fact. At the frontier of the district I had a pleasant surprise. I was on foot. I was walking towards an inn to get my breakfast, the inn of Ecktvende-in French the Tourne-Coin. After a coldish night a beautiful morning. The seven o'clock sun was drinking the dew of the meadows. There was quite a

At the door of the Ecktvende a small ing nag, able perhaps to do a couple of leagues an hour if there were not too many hills.

gen. I started early this morning, and I was here at seven o'clock to the minute.

kreutzers— "Thanks. Natalis, it is don, and all wee

While we were talking the innkeeper of the Eckvende, leaning against the door, seemed to be listening, without taking much notice of us. I thought this unsatisfactory. Perhaps it it would have been better for us to have spoken to each other further off. He was a fat man, quite a mountain, with a disagreeable face, eyes deeply set, folded eyelid, small nose, and a large mouth, as if he had eaten his soup with a

sword when he was young.

After all, we had not said anything that could damage us. Perhaps he had not heard all that passed? If he did not know French he would not know that I came from France.

We got into the carriole. The innkeeper saw us leave without making the slightest

I took the reins. I started the nag briskly wespun along like the wind in January. That did not hep us from talking, and Irma told me how matters stood. And from what I knew already, and what she told me, I will now say something about the Keller family. CHAPTER III.

Madame Keller was born in 1747, and was then forty-five years olds. A native of Saint Sauflieu, as I have said, she belonged to a family of small proprietors. Monsieur and Madame Acloque, berfather and mother, had a very modest competence, but saw it grow less year by year. They died, one shortly after the other, in 1765. Their daughter remained in the care of an old aunt, whose death would soon have left her alone in the world. It was under these circumstances that she

was found by Monsieur Keller, who had come to Picardy on business. He established him self for eighteen months at Amiens, where he was engaged as a forwarding agent for goods and increhandise. He was a man of serious mind, good bearing, intelligent, and active. At that time we had not that repulsion towards the German race which grew later out of national hatred fostered by thirty years of war. Monsieur Keller possessed r certain amount of fortune, which could not but be increased by his zeal and business capacity. He asked Mademoiselle Acloque to become his wife.

Mademoiselle Acloque hesitated, because

she would have to leave Saint Sausieu and the Picardy she loved. And would she not by this marriage cease to be a French-woman? But then all she pessessed was a small house, which she would have to sell. What would become of her after this last sacrifice? And Madame Dufrenay, the old aunt, feeling that death was approaching, and alarmed at the position in which her niece would find herself, pressed her to con-

Mademoiselle Acloque consented. The mar riage took place at Saint Sanflien. Madame Keller left Picardy a few months later, and followed her hasband beyond the frontier. She never repented the choice she had made. Her husband was good to her and she was good to him. Always attentive to her, he so won her love that she seldom thought of having lost her nationality. The marriage was one of reason and expediency, and yet it turned out happy, which such marriages rarely did then or do in our time.

A year afterwards, at Belzingen, Madame Keller had a son. She resolved to devate herself entirely to the education of this child, who will fill a prominent part in our story.

It was some time after the birth of this son, about 1771, that my sister Irms, then nineteen, went into service at the Kellers.

Madame Keller had known her as a child. Our father had been occasionally employed by Monsieur Acloque, whose wife and daughter toook an interest in us. From Grattepanche to Saint Sauflien is not very far. moiselle Acloque often met my sister, kissed her, made her presents, and admitted her to a friendship which the truest devotion was one day to repay.

When she heard of the death of our father

and mother, which left us almost without means. Madame Keller thought of taking Irma into her service. Irma was then in the service of a family at Saint Sauflieu, but she gladly accepted the offer-and she never had cause to repent doing so.

Monsieur Keller was of French descent.

About a century before, the Kellers lived in

French Lorraine. They were well-to-do com-

mercial people of markad ability. And they

were prospering, when there occurred that grave incident which changed the inture of thousands of the most industrious families of France.
The Kellers were Protestants, much attached to their religion, whom no question of self-interest could induce to be renegades. This was clearly shown when the Edict of

Nantes was revoked in 1685. Like many others they had the choice of quitting their

zerland, Gong and particularly Franden-burg. There they received thearty welcome from the Elector of Prussia and Potsdam, to Berlin, Magdeburg, Stettin, and Frankfort-on-the-Oder. Twenty-five thousand natives of Metz, I am told, went to found the flour-ishing colonies of Stettin and Potsdam.

The Kellers then abandoned Lorraine, not without hope of return. Meanwhile they took up their goode with the stranger. New relations grew up, new interests arose. Years rolled by, and still they remained.

At this time Passia, the foundation of which as a kingdom dates only from 1701. possessed on the Rhine only the ducby of Cleves, the county of La Marck, and a part of Gueldres. It was in this last province that the Kellers sought refuge. There they founded factories, and got back the trade interrupted by the iniquitous and deplorable revocation of the edict of Henry IV. Generation followed generation and alliances were formed with the new countrymen, and gradually the Franch sefurces became German dually the French refugees became German

subjects. About 1760 one of the Kellers left Gueldres to establish himself in the little town of Belzingen, in the centre of the circle of Upper Saxony which comprised a part of Prussia. He succeeded in his enterprise, and was thus enabled to offer Mademoiselle Acloque the comfortable home she could not find at Saint Sauflieu. It was at Belzingen that her son had come into the world, a Prussian on his father's side, although through his mother's French blood flowed in his veins.

And. I say it with emotion that still makes my heart leap, he was a French to the soul. spirit lived again. She had fed him on her milk. In his first childish words he had



speak German, French was the language usually heard in the house at Belzingen, and French was the first language he heard.

The boy was rocked to sleep with the songs of our country. His father never thought of objecting. On the contrary. Was not the language of his ancestors that Lorraine tongue which is so French, and the purity of which the neighbourhood of the German frontier has not been able to alter?

And it was not only with her milk, but with her own ideas that Madame Keller had nourished the child. She was deeply attached to her native country. She had never given up the hope of one day returning to it. She never concealed the fact that her joy would be great when she could be great when she could ugain look old lands of Picardy. Monsieur Keller in no way objected to this. When his fortune was made he would willingly leave Germany and settle in France, but he must work a few more years yet to make sure of a proper posi-tion for his wife and child. Unfortunately death had surprised him about fifteen months before I met my sister.

Such were the trings she told me as we rolled along in the corriole to Belzingen. This unexpected death had delayed the return of the family to France—and what mis-fortunes followed! When Monsieur Keller died he was engaged in a lawsuit against the Prinssian Government. For two or three years, as contractor of stores for the Government, he had embarked not only his own capital, but certain funds that had been entrusted to him. From his first receipts he had been able to pay back his partners, but the bulk of the amount. country or changing their faith. Like many others they preferred exile.

Manufacturers, artisans, workmen of all sorts, agriculturists, departed from France to enrich England, the Low Countries, Swit-

had at last to appeal to the judges at Berlin.

The lawsuit dragged on.

It is not a wise thing to go to law with a Government in any country. The Prussian judges showed uninistakable ifl-will towards him, although Monsgeur Kolier had faith fully fulfilled his engagements, for he was an honest man. A sum of twenty thousand florins was in question—a fortune in those days—and the less of the lawsuit would be his ruin. Had it not been for the delay in this matter the position of affairs at Belzingen would have been settled for the best, and Madame Keller's wish to return to France after her husband's death would have

been accomplished.

This is what my sister told me. Her own place in the family can be imagined. She had brought up the child almost from his birth, and loved him with truly maternal affection. She was not looked upon as a servent in the house, but as a companion, a humble and modest friend. She was one of the family, treated as they were, and devoted to them. If the Kellers left Germany it was with great joy she would go with them. If they remained at Belzingen she would remain with them.

Separate me from Madame Keller! It would be like death to me!" said Irma.
I saw that not nothing would persuade my

sister to return with me, so long as her mis reas was forced to remain at Belzingen.
But to see her in the midst of a country ready to rise against ours gave me great untersiness, and pardonably so, for if a war began it would not be a short one.

When Irma had given me all the news about the Kellers she asked.

about the Kellers she asked-You are going to stay with us during the

whole of your leave?"
"Yes, all my leave, if I can." "Well, Natalis, it is not unlikely that you

will be asked to a wedding."
Whose? Monsiaur Jean's?"

"And who is he to marry? A German ?"

"No, Natalis, and that is why we are pleased. If his mother married a German, he is going to marry a Frenchwoman.

A good-looking one?" "Beautiful as an "angel." "I am glad of that, Irma."
"And so are we. But are you

never going to get married, Na-46 T 1 3

Are you married?" "Yes, Irma."
"And to whom?"

"To my country, sister ! And what else can a soldier want?" CHAPTER IV.

Belzingen is a little town net quite twenty leagues from Berlin, and near the village of Hagelberg. where in 1813 the French fought the Prus sian Landwehr. It is picturesquely stinated at the foot of Flameng, and is commanded by its ridge. Its trade is in horses, cattle, flax, clover, and cereals.

My sister and I arrived there about ten

o'clock in the morning. In a few minutes the carriole had stopped before a house that was very clean and attractive, though unpre-

tending. It was Madame Keller's.

In those parts you would think you were in Holland. The country people have long bluish coats, scarlet waistcoats, with a tall thick collar that would protect them splendidly from a sabre-cut; the women have double and triple petticoats. Their caps, with white wings, would make them look with white wings, would make them look like sisters of charity were it not for the bright-coloured dresses that fit tight to the figure, and the coreage of black velvet, which ans nothing about it of the nun. At least that is what I saw as I went along. The welcome I received may be imagined. Was I not Irma's own brother? I saw at

once that her position in this family was not inferior to what she had told me. Madama Koller honoured me with an affectionate smile, and Monsieur Jean with a hearty shake of the hand. My being a Frenchman stood me in good part.
"Mozsieur Delpierre," he said to me,

"my mother and I expect you to pass all your leave amongst us. A few weeks is not much to give to the sister whom you have not seen for thirteen years."

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swarm of birds on the beeches, oaks, elms, and birches. The country was but little cultivated. Many of the fields lay fallow. The climate is a severe one in these parts.

"Yes, Natalis; to bring you to Belzin

"Did you come to look for me in that

And if the letter you sent had come sooner Ishould have gone further to meet you." "Oh! there would have been no good in that. Come, let us get off. You have nothing to pay at the inn? I have a few

have to do is to start.

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## TID-BITS.

Picking Apples,

PPLES to pick! Applea to pick!
Come with a basket and come with a stick.
stic the trees and shake them down.
d let every boy take care of his crown.

There you go Tommy! Up with you Jim! Crawl to the end of that crooked limb. Carefully pick the fairest and best:
Now for a shake, and down come the rest.

Thump! plump! down they come raining! Shake away! shake, till not one is remaining. Hopping off here, and popping off there, Apples and apples are everywhere.

Golden russets, with sunburnt cheek, Fat, ruddy baldwins, jolly and sleek; Pippens, not much when they meet your eyes, But wait till you see them in tarts pies!

Where are the Pumpkin Sweets! Oh, here! Where are the Northern Spys! oh, there! And there are the Nogheads, and here are the Snows And yonder's the Porter, best apple that grows.

Sort them and pile them, the red and the brown What! are the Blue Pearmains not down! They're blushing purple with rage, I see, And the Oxfords are black with realousy.

Beautiful Bellefleurs, yellow as gold, Think not we're leaving you out in the cold? And dear fat Greenings, so prime to bake, I'll eat one of you now, for true love sake,

Oh, bright is the Autumn sun o'erhead, And bright are the piles of gold and red! And rosy and bright as the apples Are Jim, Tom and Harry, as merry as elves. It's papa's birthday next week, Johnuy,

remarked mamma, and you ought to thinking of giving him a present. Yairp, said Johnny. You hadn't forgotten it, had you?

Yop.
Then you hadn't thought of anything to

Nawp. Let's see. You've saved up two dollars,

Yup.
Then don't you think it would be a good thing to give him a real nice pair of slippers . Whap?

A nice new pair of slippers, with red Nawp! said Johnny, with solid emphasis; what's the matter with giving my money to the heathen?

Tubbley (bashfully, and removing his has spasmodically)—Is Miss Tremmer in?

Maid—She is, but she is engaged.

Tubbley(who settled things last night)—
I know—I'm the young man.

Buyer-How much are these trousers, Mr. Mr. Solomons-Vell, mein freund, ve are

yust givin does pants avay.
Buyer (effusively)—Thanks—thanks! I'll
take this pair. (exit rapidly with trousers) Mistress (to cook)—Bridget, I expect to take my breakfast at six o'clock to-morrow

Bridget-Yis, mum ; ain't it's not objectin' Or am mum, av yez will be so koind as to hape mine werrum for me till I come down. Wife—What does this circus advertisement mean when it speaks of a man with an liusband-Means what it says, of course

Wife—Dear me! I don't know what I would do if I had an iron jaw. Husband-You'd wear it out in about six

Indignant citizen-When I bought this horse you told me that with a little training he would make a first class animal for the

Horse dealer—And so he will ! Citizen—I tried him yesterday, and he seventeen minutes trotting a mile! se dealer—Oh, I didn't mean a race friedd. I meant a street car track. ne window of a drug store is displayed a wous sign "vaccine." A young lady hicago walked into the store yesterrnoon to get some soda water.
t syrup, please? asked the slender

Vaccine, promptly replied the fair She took it for the latest thing in soda, only she didn't get it. The clerk fainted.

They stood beneath the stars, and, silent as the heart-beats of the night, looked far away into the diamond-studded shirt front Is that Mars? he whispered, as he slipped

his arm about her taper waist and gazed up on a gilttering orb in the distant blue, No, it ain't, she exclaimed, jerking away, its mine, and if you think you are hugging mother I can tell you are mistaken.

The matter was amicably adjusted before

anvithing serious resulted. Wife-piously; Henry, I wish you would M & SWear SO. Husband-shocked: I don't swear, my

Wife-Yes you do, or just the same thing. You mustn't say 'by George,' or 'by Jove,' or 'by Ned,' or by anything.

Husband—submissively: Not even buy a

new bonnet, love? Then she was very, very sorry for her thoughtless reform movement, and coming close to him, threw her arms about his neck

and asked him to forgive her. Pa-What would you like to be when you grow up, Johnny?

Johnny-I think I'll be a soldier. You might get killed. Who by?

By the emeny, of course.
Well, then, I guess I had better be the enemy. You must give me time, George, to think

over. It is all so strong, so enexpected.

I will give you a year's time if you wish it My love for you is great enough to bear that Oh! I don't want a year—give me five

Pa, do you know that this is my eighteenth birthday?

Yes, my dear.
Ps. I want you to do me a great favour on my birthday, and the beautiful girl buried her glowing face on the parental

And what is the favour my little girl wants. haven't you? Well, yes, my dear.
Then have them remove that gas-lamp

away from right in front of our gate. Thus it was that the fond father discovered that a daughter isn't a little girl always. She

Pa, you have influence with the city council, Bobby was spending the day with his aunt. So you are learning to spell, are you, Bouby. Yes, I can spell first-rate now.

Let me hear you spell bread. I don't believe I can spell bread, auntie, but I can spell a sm all piece of cake. The bulk of my fortune I wish to bequeath to my scapegrace nephew, George, said the dying man.
Why, it was only yesterday he called you

an old skinflint, said the lawyer. I'd cut the boy off. he boy off.
That's all right, replied the testator. You make the will out the way I tell you. I know enough about wills to know that if I

leave him all the money he won't get a cent Would you mind if I lighted a cigar, Miss Clara ? he asked.

Certainly not, Mr. Sampson, she replied. And presently the old man, who was getting desperate, spoke from an open window

Daughter, he said, I left my rubber overshoes near the kitchen stove and you had better see to 'em. I can smell something The new servant girl came to the lady cry-

ing and holding on to her finger.
What's the matter? asked the lady. I've run a fork into my finger, and it's this plated stuff I'll get lockjaw.

Don't be afraid. All my silver is genuine.

I don't keep any plated ware in the house.

Next morning the servant girl and all the silver were missing, and the table ware was all plated for some time after, until the

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Uncle Rastus—All right, sah. I'll call around at yo' house dis ebenin' bout seven,

A seedy-looking man came into the office Philadelphia the other day, and said; Mr. Mr. Dreydoppel, I'm a needy man, and would like twenty-five cents.

Well, now, remarked the man addressed I consider that cool. You might have fared better if you had asked for a few pennies. With a look of real indignation, and a voice almost angry, the suppliant said:
Now, see here, Mr. Dreydoppel, you know your business and I know mine; but if you think you can give me any points on begging, just start out and try it.

Mr. Dreydoppel handed over the quarter.

She Couldn't Pass the Salt. Perhaps you can imagine the sensation created by the following incident, which occurred at a very select and formal dinner party on Beacon street one day last week ays the Albany Argus :-

One of the guests on this festive occasion was a young lady from Baltimore, whose at tractiveness-for the men, at any rate-is not diminished by a tendency to be mildly giddy. On either side of her at the table were seated two nice young men, who vied with one another in their efforts to engage her attention. With both of them she seemed equally pleased, bestowing her smiles this way and that with charming impartiality. Having been introduced to the pair but five minutes before sitting down she had seemed equally before sitting down, she had cast a spell upon them before the fifth oyster on her plate was awallowed; when the soup plates were removed they had already abandoned themselves to her fascinations, and by the time the roast was on the table each was hopelessly enraptured. When the fowl was brought it chanced that, while the butler and assistant were out of the room for a moment, the hostess, who sat close by the head of the table. wanted some salt.

"My dear," she said to the Baltimore girl, will you hand me that little cellar by you?" The young woman spoken to looked up responsively, but made no motion to comply with the request. Supposing that she had not understood Mrs. K—, said again:—
"Will you not give me the sait, if you blesse?" please?

By this time the attention of everyone present had been called in that direction. young lady from the Monumental city, however, was not perturbed. "I am very sorry, Mrs. K.—," she said, "but how can I do what you ask?" And with this she lifted her hands suddenly from beneath the table, holding in her left the hand of the young gentleman on that side and in her right the hand of his rival. Both had been holding hands with her, unknown to each other, under the mahogany.

Why He Was Called "Venus." An amusing story, related of the late Dean of Chichester, appears in the Liverpool Mercury: "While he was vicar of St. Mary-the-Virgin's church, of Oxford—from the pulpit of which Cardinal Newman delivered his of which Cardinal Newman delivered his famous sermon—a parishioner brought a male child to be christened. Upon Mr. Burgon asking the sponsors what name they desired to give the baby they replied: 'Venus.' Venus!' he exclaimed, indignantly. 'How dare you say me to call it are such arrest. dare you ask me to call it any such name ?

In the first place it is not a man's name at all, but that of a most wicked and abandoned female.' 'Please, sir, the child's grand-father was christened Venus,' exclaimed the godmother, very much alarmed. "What, do you mean to say he's got a grandfather called Venus? Where is his grandfather? The christening was suspended till he came, a poor old fellow, bent double with rheumatism, years, and toil, and looking as little like Venus as can possibly be imagined. Do

years, and tool, and looking as need has Venus as can possibly be imagined. 'Do you mean to tell ine, my good man, that you were christened Venus?' 'Well, no, sir,' he coughed and stammered; 'I was christened. Sylvanus, but folks always call me Venus." The population of Kingston has advanced

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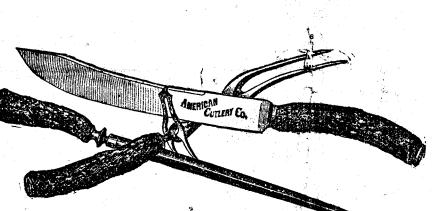
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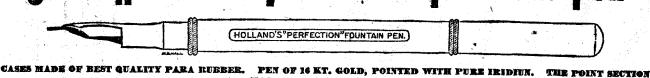
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