FARM·FIELD AND GARDEN

IMPROVEMENT OF STOCK.

To the farmer who has his land in good condition to furnish what is necessary for the proper care of live stock, and has become convinced that it would be to his advantage to make a start in the work, the next question is, how shall I begin? This looks like an easy question to answer, but it is not, as it must be settled with due regard to his financial standing and other circumstances connected with his surroundings. If he does not have capital to buy good stock, he at least has time to grow it, so that he must determine which he shall depend upon most in his work. If he decides in favor of time he will, as a rule, find it the safest plan, as very few men can go into the market with a sum of money, purchase freely in any line of stock, and feel entirely satisfied with the result. We have seen a good many herds and flocks started in that manner, and many proved failures. Those that did not were saved by changing their breeding stock after they had learned to buy what they wanted and not what the other man wanted to sell. To the man who starts in slowly, and studies the business carefully, there is little danger of loss and good opportunities for doing

A PROFITABLE BUSINESS.

If the farmer has some ordinary native, or unimproved female stock on hand, progress is comparatively easy and not at all expensive when the returns are consihered. He purchases or uses the improved sires owned by his neighbors of the particular breed he thinks most suitable for his purposes. Having made the first cross he should stick to the same breed, selecting each time some of the best females to add to his flock or herd, and replace others that are not up to his standard. If sires are carefully chosen each succeeding cross will show an improvement, and by the time he has females with four straight crosses of an improved breed, he has animals that are practically as useful to the farmer as if they were pure bred. His added cost to secure such animals, compared with the unimproved stock would have cost him, would be in a little better feeding, the cost for use of improved sires, and better shelter than is usually given scrub stock. This would only be a small part of the benefit he would receive from the improvement he had made. Whether the improvement had been made in cattle, sheep or hogs the results would be equally good. Meanwhile he had learned the business of caring for the stock, making the best selections for carrying on the work of improvement, and at a minimum of cost. This is the safest plan for the new beginner, and substitutes time, which he has, for money that he does not have. He does not run in debt and have to pay interest. The danger is that he will not persistently follow the course

FIRST MARKED OUT

and will shift from one breed to another so that his stock becomes morgerlized, and no better for practical purposes than when he first began its improvement. Or he may get a half-blood male that looks so good that he decides to breed to him, and a greater mistake could not be made, as the progeny is nearly certain to show more of the scrub dam than of the half-blood sire.

It should always be borne in mind that unimproved animals, or scrubs, are strongly bred, as they are the result of their environment. They have been neglected, and nature, which never makes mistakes, adapts them for their surroundings. The more they are neglected the more worthless they become to man, and the better fitted, they become to stand hardships and privations. Thus the improved hog, if turned loose in the woods, in a few generations becomes a razonback, the Shorthorn or Hereford as lean, gaunt and muscular as a Texan long horn, and the mutton sheep gains in speed and activity at the expense of fleece and mutton. The tendency of all live stock is to revert to its natural condition when left to care for itself, and the Holstein or Jersey that gave milk nine or ten months in the year, in a few generations dries up as soon as its cald is weaned. It has been the skill of the breeder, added to shelter and generous feeding that has given us the improved breeds of live stock, and made them so valuable as producers of

FOOD AND CLOTHING.

As soon as the feed becomes scanty and no shelter is provided, the animal reverts to its natural form, and while enabled to maintain itself is unable to do any more. The conditions that produced the improvement in the first place must be continued or all that has been gained will be thrown away. It is therefore important that the farmer arranges to provide food and shelter before starting to improve his stock, for if he does not he will never realize much benefit from his work.

Good live stock on a farm has a moral influence that should not be ignored. Its tendency is to make better farmers, and to interest the farmer and his family in improving their surroundings. It also develops sociability, for good cattle, or sheep, or hogs, will always draw the attention of neighbors. It also acts as a strong incentive for them to improve their stock also. Good stock, therefore, is always doing missionary work in a neighborhood, and is a benefit to the entire commubity. A good farmer will not long be content with scrub stock, nor will a scrub farmer ever keep improved stock. If he starts in, one or two things will happen, either the farmer improves or the stock deteriorates, and soon becomes worthless. The kind of stock a farmer keeps is therefore a pretty good indeff of the kind of farming he is doing.

FERTILITY OF ORCHARDS.

From an article on fruit growing by a correspondent, we take the following remarks on the necessity of keeping up the fertility of the soil in orchards:

"We have often heard the question asked as to what would be the best fertilizer for orchards, and I know many cases the answer has been brains. Now in the use of brains as a fertilizer I think we would find something more expensive than commercial fertilizer, as we call it. One cannot make a free use of their brains in studying out what they shall use. The soil and the plant food it contains are something like a bank. So long as your deposit is good your checks are honored, and the larger your deposit the better your credit. We can see from this that the soil is a kind of storehouse for plant food to be taken up and used by our crops. The soil where we grow our trees has been mostly deribed from the breaking down of the rocks, and although there is an immense amount of plant food there, very few soils contain in available form food more than enough to last two or three years and give maximum crops. The thing for us to do is to learn how to get the most food out of this soil and how to have at all times an ample supply. You have many times been told what kind of food our plants need. Chemists have told us we want some potash, phosphoric acid and nitrogen, and of course all of these are required. We find, however, something more than this in the soil, and the fruit grower calls it humus.

THE NAME HUMUS

has been applied to decaying plants. either plants grown upon the soil that have died and been allowed to remain there, or where we have applied manure to the soil, and in many cases you will find it is the lack of humus that reduces the yield of our tress. This humus tends to make the soil spongy-like and prevents loss of plant food. I presume that in most cases the amount of plant food that is actually lost in the soil is in excess of what is used by the plants, and in maintaining this fertility we want to be able in the first place to hold and save from loss this large amount of plant food. It is really a matter of dollars and cents. The chemist figures out what these materials are worth and will say: If you can save a pound of potash it is worth five cents, and every pound of nitrogen you can save is worth twelve cents, and five cents more for the phosphoric acid. The first thing, then, is to carry out the idea of Prof. Waite in keeping up this supply of humus by growing cover crops and turning them under, or applying manures. The best soils will run out after long periods of cultivation. The ground is, during the greater part of the year, bare and exposed to the rains and the rains have washed out this plant food. The best crop recommended for this cover crop is oats, sown about the first of August and plowed under early in the spring. The next best is Crunsan clover, sown about the same time, but the seed is expensive, and in our country it starts too late in the spring and hardly gets growth enough in the fall.

Now, we better not spend so much time watching the tops of our trees for a crop of apples, but watch and study to find out what is required around the bottoms, and then the fruit will appear in due time in the tops."

Could Not Eat Without Suffering

Sixteen Years of Great Distress From Indigestion and Liver Trouble —Doctors Failed—Cure Effected by

Dr. Chase's Kidney Liver Pills

In most cases of chronic indigestion the liver and kidneys are at fault as well as the stomach, and because of their combined action on these organs. Dr. Chase's Kidney-Liver Pills cure when all ordinary means fail.

The case of Mrs. Husband is not unlike scores and hundreds which are repeated to us. There can be no better evidence as to the thoroughness and effectiveness of Dr. Chase's Kidney-Liver Pills.

Mrs. E. Husband, Moore street, St. Catharines, Ont., states:—"I was seriously afflicted with indigestion and stomach trouble for sixteen years. Finally I became so bad that I could scarcely eat anything without suffering terrible distress. Gradually I grew weaker and more emaciated, and though treated by three doctors and a specialist I received no benefit.

"After a time a pain began in my right side, which medical men said was liver trouble. I never got relief until I began the use of Dr. Chase's Kidney-Liver Pills, and they helped me at once. By using about a dozen boxes I was entirely cured. I owe my cure entirely to this treatment, and make this statement with the hope that some poor sufferer may benefit by my experience."

Dr. Chase's Kidney-Liver Pills, one pill a dose, 25c a box, at all dealers, or Edmanson, Bates & Co., Toronto. To protect you against imitations, the portrait and signature of Dr. A. W. Chase, the famous receipt book author, are on every box.

LIGHT THROWN ON CANCER.

New Field of Observation Is Opened Up.

Great importance is attached to two recent discoveries concerning cancer which have been widely discussed in London recently. The first of these is the discovery of the existence of cancer in fishes, as in man and other warm-blooded animals living in similar conditions to man. It is hoped that the fact that cancer exists in fish, which live under such different conditions from man, may conduce to a more speedy and complete knowledge of the disease.

The other discovery was that of Prof. Farmer and Messrs. Moore and Walker. This does not promise an immediate cure or prevention, but is acknowledged to be of the highest importance. At present its practical value is diagnostic. It enables a distinction to be drawn readily, even easily, between malignant and benigant growths. The fundamental importance of the discovery must be discounted. Heretofore the most terrible thing about cancer has been the ignorance of the causes of its birth and growth. A microbe parasite has been suggested, but has failed completely to justify the theories founded on the assumption of its presence.

NOT EMBRYONIC TISSUE.

Another theory which has been accepted generally of late has been that cancer is the untimely growth of an embryonic tissue, that is a tissue which had existed in the body stationary and undeveloped since some previous stage. Evolution had started it into activity, and it developed at a furious rate in an entirely wrong way.

Prof. Farmer and his colleagues have now established the nature of the cancer cells, the method of their growth, the possible connection of their growth, and the irritating causes which provoked it, incidentally showing that cancer cells are not a development of the embryonic tissue.

It is difficult to explain the discovery briefly in popular language, but the central point is the establishment of the fact that the cancer cells are cells which under some kind of irritating stimulus behave not as ordinary cells, but as if they were cells of the reproductive tissue. The process observed during the development makes it easy to tell if a cell is malignant cancer. Research, therefore, has a new field of observation in finding what agents of irritation are causing an ordinary cell to act the same as cells of reproductive tissue.

CHRISTENING BABY.

It is a compliment to a great man to name the baby after him. But what about the baby? Even those parents who insist that their children owe everything to them will at least concede that they owe it to the child to give it a name that will not be a handicap should it ever make its way or have a business that must be advertised. And to give a child a name that has already been clapped upon the tiptop pinnacle of fame is to make it the victim of ridiculous contrasts all its life. The baby's name is most important. It should be short, simple, sensible—fit to become the nucleus around which an individuality may crystalize. We cannot have too many Johns and Marys, or too few Julius Caesar Jonses and Roberts Buller Kitchener Browns.

The following good story is told of the secretary of a musical society: A gentleman rang his door-bell one ev- combustion. Iron and steel filings and turnings, when mixed with oil, will ignite spontaneously after becoming carbonized

THE GREAT SMITH FAMILY.

It Beats the Joneses, the Browns, and all Others.

If numbers make for greatness then is the Smith family incontestably the greatest of all the families inhabiting these islands says the London Daily Mail.

The pride of Smith is writ large upon the pages of the new Post Office London Directory, for in the "court" sections are enshrined the names of 504 Smiths, to which may be added 21 Smyths and 9 Smythes. There are individually recorded here 36 ladies whose sole appellation is plain "Mrs. Smith."

At the head of the family list stand a Judge, a Baronet, 2 Knights 2 Members of Parliament, an Admiral, 3 Colonels, 1 Lieutenant-Colonel, 1 Major, 4 Captains and 13 Reverends, all of the name of Smith.

In the much larger "commercial" section of the directory are found eighteen columns of Smiths, each containing the names of about ninety individual Smiths; so we may take it that there are at least 1,600 Smiths inhabitiog the commercial world of London.

A large number of permutations and combinations of Smith are to be found. Thus we have Smith and Smyth, or, with the addition of the genteel "e," Smithe and Smythe. In the plural we have Smiths, Smithes, Smithyes, Smythies. In the comparative degree, Smither, Smiters, and Smythers; there is no Smithest. We also have the allied active forms Smithem, Smitham and Smithett, also Smithson and Smthson.

Foreign forms are Smit, Schmit, Schmitt, Schmidt, Schmitz and Smits. There are doubtless other variants, but the above are all that the eye of the untrained man is likely to detect, further differentiation may be left to Smith experts.

The Joneses muster but 295, of whom 42 are plain "Mrs. Jones." There are 203 persons named Brown besides three named Browns and 57 Brownes. The Robinsons are nowhere, by comparison.

SURE.

The Robust Physique Can Stand More Coffee Than a Weak One.

A young Virginian says: "Having a naturally robust constitution far above the average and not having a nervous temperament, my system was able to resist the inroads upon it by the use of coffee for some years but finally the strain began to tell.

"For ten years I have been employed as telegraph operator and typewriter by a railroad in this section, and until two years ago I had used coffee continually from the time I was eight years old, nearly 20 years.

"The work of operating the telegraph key is a great strain upon the nerves and after the day's work was over I would feel nervous, irritable, run down and toward the last suffered greatly from insomnia and neuralgia. As I never indulged in intoxicating liquors, drugs or tobacco in any form I came to the conclusion that coffee and tea were causing the gradual break-down of my nervous system and having read an article in the Medical Magazine on the composition of coffee and its toxic effect upon the system, I was fully convinced that coffee was the cause of my trouble.

"Seeing Postum spoken of as not having any of the deteriorating effects of coffee I decided to give up the stimulant and give Postum a trial. The result was agreeably surprising. After a time my nerves became wonderfully strong, I can do all my work at the telegraph key and typewriter with far greater ease than ever before. My weight has increased 35 pounds, my general health keeping pace with it, and I am a new man and a better one." Name given by Postum Co., Battle Creek, Mich.

There's a reason.

Look in each package for the famous little book, "The Road to Wellville."

MAGNETIC STORMS.

The occurrence on October 31st of a great magnetic storm, which interfered with telegraphic lines more or less all over the northern hemisphere, coincidentally with the reappearance of vast groups of spots upon the sun, has reawakened discussion of the question of the influence of sun-spots, or rather of the forces that produce sun-spots, upon the magnetism of the earth. The prevailing opinion among astronomers and physicists is that disturbances in the sun, recurring at intervals of about 11 years, do exercise, in some as yet undefined manner, an electro-magnetic influence upon the earth, and that to this influence is due the appearance of brilliant displays of the aurora borealis and the occurrence of magnetic storms that affect telegraphic instruments and magnetic needles. But not every group of sun-spots is accompanied by these extraordinary phenomena.

HAS 500 ROOMS.

A hotel covering an area of two acres, containing practically 500 rooms, and costing $5,000,000, has been opened at Manchester, England, by the Midland Railway company.

DR. A. W. CHASE'S CATARRH CURE ... 25c.

is sent direct to the diseased parts by the Improved Blower. Heals the ulcers, clears the air passages, stops droppings in the throat and permanently cures Catarrh and Hay Fever. Blower free. All dealers, or Dr. A. W. Chase Medicine Co., Toronto and Buffalo.

DISTRESS AFTER EATING.

Can Only Be Cured by Removing the Cause of the Trouble.

There is only one way to cure indigestion; the medicine must act upon the digestive organs—not upon their contents. Medicine should not do the stomach's work, but should make the stomach do the work nature intended it should do. Dr. Williams Pink Pills do this as no other medicine can. They tone up the stomach, restore the weakened digestive organs and promote natural digestion. There is no doubt about this—it has been proved in thousands of cases that Dr. Williams Pink Pills cure indigestion when all other medicines fail. Mr. Elcear Robidoux, St. Jerome, Que., offers his testimony to substantiate this. He says:—"For some years I was a great sufferer from indigestion. My appetite became irregular, and everything I ate felt like a weight on my stomach. I suffered much from pains in the stomach and was frequently seized with diziness and severe headaches. Nothing I tried did me a particle of good until I began the use of Dr. Williams Pink Pills, and these, after taking them for about two months, completely cured me. It is nearly two years since I discontinued the use of the pills, and I have not since had the slightest return of the trouble."

Dr. Williams Pink Pills cure not only indigestion, but every trouble due to poor blood and shattered nerves. They will not fail if the treatment is given a fair trial. Don't take any pink colored substitute—don't take anything but Dr. Williams Pink Pills for Pale People. You will find the full name printed on the wrapper around every box. Sold by all medicine dealers or sent by mail at 50 cents a box or six boxes for $2.50 by writing The Dr. Williams Medicine Co., Brockville, Ont.

BLOW TO TRUE SCOTS.

Bagpipes Were Introduced to Them by the English.

The true Scotsman will spend a sad half hour when he learns that Scotland cannot really boast of being the mother—or father—of the bagpipes, and that these harmless and necessary musical instruments had been actually dumped on to the land of heather and gorse by England!

As this charge was made at the annual gathering of the Incorporated Society of Musicians—and in Glasgow, too—it is an insinuation that must not be treated too highly.

Scotsmen in London are already thinking of combining in a big protest against this slur upon the pipes. However, enquiries were set afoot, and it was found that the bagpipe goes back into dim days of the Old Testament, and that it was used by the Egyptians, the Greeks, and the Romans long, long before either England or Scotland produced anything beyond mud and paleoliths.

It has been known in various countries and languages as the musetto, the sackpfeife (a most descriptive word) -and the cornamusa. In Nero's time it was a popular instrument, for history has it that wicked emperor "promised to appear before the public as a bagpiper." It is very probable that it was not the fiddle that Nero played while Rome was burning—but the bagpipe.

Shakespeare talks of "the drone of a Lincolnshire bagpipe," and a far greater than he—the British Encyclopaedia—gives much evidence "to disprove the common notion that the instrument has always been peculiar to Scotland."

After this blow to Highland traditions some cynical investigator will prove, perhaps, that the haggis came originally from Australia, that the Scotch broth was made first in Germany, that the kilts were aboriginal garments many years B.C. (as, indeed, they were), and that the best Scotch whiskey comes from Ireland.

But there is still butterscotch remaining. Nobody can prove that this delicacy was dumped into Scotland by alien confectioners.

A MOTHER'S PRAISE.

"From the time my baby was born," says Mrs. Robt. Price, of Combermere, Ont., "he was always sickly and costive until I began giving him Baby's Own Tablets. He is now, well, strong and growing nicely, and I can hardly say how thankful I am for my baby's cure." In every home where there are young children this medicine should always be kept on hand. The troubles of little ones come when least expected, and a dose of the Tablets promptly given may save a precious little life. Baby's Own Tablets cure all the minor ills of little ones, and an occasional dose will prevent sickness. They are guaranteed to contain no opiate or harmful drug. The Tablets are sold by all medicine dealers or sent post paid at 25 cents a box by writing The Dr. Williams Medicine Co., Brockville, Ont.

EVERY LUXURY PROVIDED.

A dog's tailor exists in Paris. The tailor is a woman and in her reception rooms the dog has rugs, water and even biscuits to refresh him during the trying on process. Here are the daintiest water color pattern books to choose from, and anything from sealskin to chamois is provided.

Everything comes to him who waits —except the money he loaned a friend.