

"MANY of the agricultural journals," says the *Christian World*, "are sorely troubled to know whether a hen sits or sets. If some editor of dignity would set a hen on the nest, and the little editors would let her sit, it would be well with the world. Now a man, or woman either, can set a hen, although they cannot sit her; neither can they set on her, although the old hen might sit on them by the hour if they would allow. A man cannot set on a wash bench; but he could set the basin on it, and neither the basin nor the grammarians would object. He could sit on a dog's tail if the dog were willing, or he might set his foot on it. But if he should set on the aforesaid tail, or sit his foot there, the grammarians as well as the dog would howl, and yet, strange as it may seem, the man might set the tail aside and then sit down, and neither be assailed by the dog nor the grammarians." If some of the agricultural editors would sit on the editor of the *Christian World*, it would make him set up a howl that would be heard from city to city and would not tend to settle this perplexing question. If he comes along our way, we will, without consulting the grammarians, be happy to try the experiment of "sitting" on him or "setting" our favorite bull-pup on him.

At the annual convention of the Ontario Teachers Association, held in Toronto in August last, Mr. Thomas Shaw read an admirable paper on "Agriculture in our Rural Schools." It was then stated that a text book on agriculture for use in these schools was in course of preparation by the Department of Education, and that it would treat of the soils of Ontario, rotation of crops, the principles that underlie successful farming, fertilizers, feeding animal and plant life, weeds and insects, livestock and products, farm agriculture, horticulture, bee-keeping, beautifying the home and surroundings, etc. All those who have the welfare of agriculture at heart will welcome with exceeding pleasure the advent of this promised text-book. While we rejoice to know that it will soon make its appearance, we would humbly suggest to the powers that be that something more is required to give practical effect to this important movement. Would it not be wise for the government to appropriate a sum for the purpose of providing instruction to a certain number of select school teachers on the subject of agriculture, thus equipping them for teaching the young farmers not only the methods of agriculture but the principles on which success depends. The professors at the Agricultural College, Guelph, could devote say one month out of the twelve, for a course of lectures to these teachers who should be remunerated for the extra cost entailed upon them in attending the lectures. The advantages to be reaped from the adoption of such a system are apparent and need not be enlarged upon.

THE other day an advertisement appeared in a weekly paper in Connecticut asking for information about two girls, aged 17 and 14 years respectively, daughters of a farmer, who had left their home and gone to either Boston or New York. A despatch to the daily papers commenting upon this advertisement, said, "Hardly a month passes that bright, ambitious country girls do not desert their homes and kindred to tempt fortune in the metropolitan 'Camelot.' In many cases they are beguiled away by drummers and strolling actors and not infrequently by the glittering fiction of cheap society novels. Sometimes the fugitives are traced and eventually returned to their homes, but often no tidings are received from them." There is something in this despatch for fathers and mothers in this country to ponder over, as it is just as applicable to Canada as it is to the United States. In our large cities, such as Montreal and Toronto, there are many young girls who have been enticed from their homes in the country by the sophistry of some well-bred scoundrel or the baneful effects of reading sensational novels full of murders, suicides, intrigues, and elopements. Parents cannot be too careful of the books their children are allowed to read. A large percentage of the trashy literature of the present time has a tendency to weaken both the moral and intellectual natures of girls and boys, and instead of being made strong to meet the

snarles and temptations that surround them when they begin the battle of life, they are ready to be turned this way or that or to go down when the pressure comes. Let anyone inquire at the public libraries what class of books young readers call for as a general rule and they will be amazed at the result. No words can over-estimate the mischief of bad reading, and parents who shirk the moral responsibility cast upon them in this respect will have cause to regret it all their lives.

THE question of whether farming pays is being discussed by several agricultural papers in the United States. One writer says, "For farming to be profitable it must be conducted on improved methods, or methods which will enable the owner to compete with other farmers, and those branches of farming must be made prominent to which the farm itself, the climate and location are peculiarly adapted. It is not in human nature to be happy in a business that is not fairly profitable, whether it be farming, merchandising, or professional work. The world admires success, and there is nothing which gives any man higher social standing than the fact that he is a success. There are unpleasant and disagreeable things connected with every business, and farming is no exception. The highest manhood is shown in courageously performing these disagreeable tasks and in enduring patiently all the discomforts that are clearly unavoidable." There is sound sense in this. In Canada, like the United States, there are districts which are able to grow some one thing or a few things better than other things, and therefore it should be a continual subject of experiment on every farm as to what will grow and thrive remarkably well, and having found this out, what would be the prospects of a good market for it. The farmer who carefully and successfully experiments in this way and is not satisfied to remain in the beaten track like his neighbors, as a rule, gets rich. And so it is with the man of business. Successful businesses are generally the result of a series of experiments as to what can best be done. Farming is surrounded by endless and obscure conditions which call for constant study and watchfulness. It is therefore incumbent upon the farmer to obtain a sound, practical education. In the words of the immortal Charles Dickens, "Let him begin with the tillage of his brains, and it shall be well with his grains, roots, herbage, and forage, sheep and cattle—they shall thrive and he shall thrive." It is also well for him to keep in mind that "the certainty of reaping what you sow and gathering what you strew is all important to the man who looks to agriculture for a living."

A SUGGESTION was recently made to Hon. Chas. Drury, Minister of Agriculture of Ontario, by Mr. Lauder, of Whitby, that a profitable market might be found in the Old Country for two-rowed Canadian barley. With his usual energy Mr. Drury at once placed himself in communication with Mr. Byrne, the agent of the Ontario Government at Liverpool, England, and received a prompt reply that there was an unlimited market in Great Britain for barley weighing from 53 to 55 lbs. per bushel of good bright color. The English market has been largely supplied with this class of barley by California, the River Platte district, and France. Some years ago large quantities of the ordinary Canadian barley were shipped to England, but it was found to be too thin for malting purposes and the demand for it dropped. The English crop of barley for the past year has been a comparative failure and there has been in consequence a big demand for outside supplies. The top price for good barley for malting purposes is thirty-six shillings per imperial quarter and the average price twenty-eight shillings. Mr. Byrne suggested that a few samples of Canadian two-rowed barley be sent him to be tested by practical men. This has been done, and Mr. Drury expects to know the result by the middle of February, when he will publish a bulletin giving full particulars. The top price, thirty-six shillings per imperial quarter, would give 92 cents per bushel, and deducting 12 cents for freight, etc., would leave the producer 80 cents per bushel f.o.b. Montreal. The following table will show the importance and extent of this branch of Canadian commerce. For the fiscal

year ending 30th June last the imports and exports were as follows:—

	Imports.	Exports.
Barley, bushels....	6,856	9,870,158
Malt "	35,326	193,465
Indian Corn "	3,491,916	1,203,195
Oats "	46,923	566,721
Peas "	7,664	2,164,069
Wheat "	5,321,717	7,299,694
Wheat Flour, bls. .	35,326	193,466

Mr. Drury argues that as Canadians are practically shut out from the American markets they must go elsewhere, and he looks therefore to Great Britain as their natural market. If his present efforts are crowned with the success which they so richly deserve, Canadian farmers will have two distinct markets—their present one for ordinary barley and the English market for two-rowed barley. England produces very fine barley, but owing to climatic conditions it discolors, and therefore consumers look to California, France, and River Platte for their supplies. Our climate is good both for weight and color, and if the tests prove satisfactory, which it is to be sincerely hoped they will, a large and profitable market will be opened for Canadian two-rowed barley.

How Papier Mache is made.

IN accordance with our promise to give a series of articles on "Simple Studies on Interesting Subjects," we begin this pleasing duty in this issue. For our first article we have selected "How Papier Mache is made." The subject should be one of much interest, as many household and fancy articles are now made of papier mache, and as time progresses man's ingenuity will, no doubt, devise a great many more useful ways in which to utilize it. All those bracelets of large black beads studded with Scotch imitation diamonds; all those necklaces, pins, clasps, and trinkets of all sorts that are taken for pitch, coal, or some precious wood, are manufactured from this substance. All those handsome bracelets composed of semi-lucid and opaline globules that seem to have been cut out of a stone formed of concentric layers, like certain precious stones, are merely papier mache cemented with white varnish and coated with the same. Those beautiful nacreous, painted and gilded trays, round tables and caskets that are known as Japanese work, are nothing else but papier mache. You may ask how was this substance first thought of? This is answered by a writer in a contemporary who says:—

Who does not remember those projectiles of our school days which we called "spit-balls," and which when thrown at a wall or ceiling adhered thereto with tenacity? What was most striking about these balls was their extraordinary hardness after they became thoroughly dry, this being the more marked in proportion as the chewing had been more perfect. It was through observing such hardness that the idea occurred to some one to employ paper pulp in the manufacture of various objects. Yet the substance employed in the industry is not a "mashed" paper in the absolute sense of the word, but is paper converted into a soft cardboard by mechanical processes."

ITS MANUFACTURE.

This is the way in which papier mache is manufactured. The raw material used is a bluish-gray unsized, strong, fine-grained paper. The sheets may be compared (whiteness, which is of no account, being excepted) to Annonay lithographic paper. Cotton forms the basis of it. These sheets are pasted together by means of a layer of dextrine or starch, applied with a steel spatula. When the desired thickness has been obtained, the mass is put into a hydraulic press that operates in a highly heated drying room. Under the immense pressure of this apparatus there forms a solid block, which is as hard as boxwood or ebony, and which is perfectly plain or has the form of the mould in which the raw material, so ductile when moist and so hard when dry, was compressed. It can be moulded into any shape whatever, that of table legs, chair arms,