

## FARM AND GARDEN TALK.

## THE CANADIAN FARMER WILL TRY TWO-ROWED BARLEY THIS YEAR.

Profits from Barley.—The Science of Farming.—Notes of Interest for the Amateur who Farms for Pleasure, and the Farmer who Works for Profit.

The low price obtained for barley of late years, coupled with the proposed imposition under the McKinley bill of a duty of 20 cents per bushel on all barley entering the United States has led the Canadian farmer to attempt a revolution in that crop. Instead of raising a two-rowed barley for the United States, he is about to try his luck at growing the two-rowed variety for the British market. Mr. Goring, the Dominion Minister of Agriculture, has taken the matter up with vigor, and is applying two-rowed seeds besides furnishing much valuable information to the farmers regarding the proper method of cultivation. A considerable acreage of two-rowed barley will be sown in Ontario this spring, and the Manitoba settlers are also embarking in the business. The chief danger to which our climate is likely to be exposed in our climate is loss of weight arising from the shortness of our summer season, which makes against a slow and steady ripening. This species of barley, like the other species, grows best on a light soil where the plant is visited by the moisture of sea breezes. When grown for inland the barley is apt to become light and flabby. Experiments made in the interior of the United States show that the tendency to shrink in weight, in fact, some authorities say that in order to keep the sample up to the standard weight it is necessary to use a two-rowed barley grown on the farm of Mr. Andrew Clark, near West Oxford, recently forwarded to leading English brewers. The Guinness Company of Dublin considered the specimen "well" and "satisfactory" and did not think the barley would sell for making purposes. Bass & Co. and Allsop & Burton-Oxford said the barley had ripened too quickly and lacked mellowness. A similar opinion was given the other day by the same firm. A specimen raised in Southern Dakota is scarcely necessary to add that excessive moisture is another source of danger to the barley. Warm rains are desirable after sowing, but when the ripening process has begun the weather can hardly be too dry.

The conditions exist in a complete degree in California, and as a result California barley is a higher price in England. It is unfortunate that just when the Canadian farmer is about to experiment with two-rowed barley the price in England should exhibit a disposition to drop.—Toronto Mail.

Grafting Different Species.—Barry, who is standard authority on the subject, says: One species is frequently grafted with success on another by which certain important modifications are wrought upon both the size and fruitfulness of the tree. This is a graft with beneficial results in many cases with beneficial results in the quince, strong growing species and varieties on weaker ones, and vice versa. There must, however, be a close alliance between the stock and the graft. We cannot graft an apple on a peach, nor a cherry on a pear, but individuals of a naturally allied group may, with more or less success, be worked upon one another. Some are usually cut in the fall or winter and are kept dormant until used, but not in a place so dry as to shrivel the bark. They are sometimes cut from the tree at the time they are needed, but in such cases it is best they should not be so far from the stock as the stalks. In grafting, the bark of the scion and stock must be in close contact, and the operation should be performed in early spring before there is a rapid movement of the sap.

Profits from Barley.—Barley for market should be made a matter of business and care. It is desirable to get the crop out as early as possible, as the very first spring crops command enormous prices, but this does not last long, as the price will get to about twenty-five cents a bushel and stay there for awhile. The cost of raising the crop is only four cents a bushel. Suppose 500 bushels were raised. At this rate the cost would only be 500 times four cents, or \$20, while the price they sell for is 500 times twenty-five cents, or \$125. The profit is a clear profit of \$105 for the trouble of raising them; and of course when larger numbers are raised the profit is still greater. The prices are higher during March and April, when crops that weigh less than a pound retail at forty or fifty cents, but along with the price the crop gets daily to twenty-five cents, but even such prices as this make the business very profitable and well adapted for all classes of people.—Southern Farmer.

GENERAL NOTES.—Barley makes good pork, and its cheapness this year has caused much barley to be fed to swine. Sheep are kept in some sections on land that is too hilly to plow, and a fair profit is made. Billy heads should always be put in the soil, and no plan for doing so is better than that of raising sheep. It may be possible to give a nearly perfect rotation to an animal, but it is not always advisable to use such a ration. It is possible that in some seasons or in some sections the cost of an element in that ration would make it unprofitable to feed. We must feed, to some extent, according to circumstances, always keeping in mind that it never pays to feed what will absolutely injure the animal, however cheap it may be.

Much of the comfort and thrift of a cow depends upon the stable depending on frequent brushing and rubbing to clear off the dirt that will otherwise accumulate. In the field, when rubbing against a post or tree; but in the stable there is more need of the curry-comb and brush, and they get less of it. The cow should be rubbed with a brush, and a proportion of down are kept in stables the brush through their grooming becomes a matter of increasing importance. Try your cow with the brush, and see if she does not like it, and respond by better condition in every way. To wash or not to wash? That is the question. Practically the washing amounts to much little, so far as cleaning the fleece is concerned. It is very disagreeable if not injurious to the animal; it is a disagreeable and questionable job for the owner, and it adds nothing to the price of the wool. Washing may possibly reduce it some, but the common sense appears to indicate that the wool should be cleaned as it is, and the cleaning of the fleece is not a matter of much loss and can be done at much less cost and with less trouble. Such cleaning amounts to some extent, while that of the farmer, if they have a good reason, may be a matter of much loss and can be done at much less cost and with less trouble. Such cleaning amounts to some extent, while that of the farmer, if they have a good reason, may be a matter of much loss and can be done at much less cost and with less trouble.

LAND PUBLIC SCHOOL.—A GENTLEMAN TEACHER, preferred salary \$35 per session to be made to W. M. Robson, Sec. to Board of Trustees, Mayne Island.

## POPULAR SCIENCE.

## What It Is that Now Produces Remarkable Inventions.

Drivers by the sea have noticed for ages that their window panes grow dull by the sand blown against them. General B. C. Dickinson, of Philadelphia, about twenty years ago was the first to see how much this familiar fact meant. He thought that if a little sand lightly blown against glass cut its surface, the operation could be reduced from years to minutes if a great deal of sand were blown against the glass by pressure. His experiments proved his surmise to be true, and now in hundreds of factories throughout the country the sand-blast is busy, not only etching glass for ornamental purposes, but etching grates for buildings, and finishing files of hard steel for tool shops.

When one strikes a common sulphur match the phosphorus burns with a purplish flame, then the sulphur with a yellow one, and last of all the wood glows with reddish rays. From nothing that every substance yields its own peculiar color in burning. Sir John Herschel long ago suggested that these colors might serve to identify the substances burning them. Some time after he threw out the suggestion the spectroscope was devised, and now by its aid we are able to tell what elements are glowing not only in the sun, but in the stars as well.

That oil repels water would not seem to be a very promising fact for an inventor to begin with. Yet it enabled Herschel to give the world lithography. He found that writing executed in oily ink could be transferred to stone so that he could print from the impression. When ink from a roller was applied to it the oily lines repelled the ink, as all the rest of the stone was washed with water, the inked portions alone remained. Several beautiful printing processes based on photography depend on a principle as simple as Herschel's—namely that certain gelatine compounds are rendered insoluble by the action of light. A picture taken on a compound of this kind is carefully washed, leaving in relief every line on which light had fallen.

It has been recently discovered that strong as steel is, it can be made yet stronger by an alloy of three to five per cent. of nickel. This means that in the future we can have larger bridges, higher towers and lighter machinery than ever. Shipbuilders and the passengers as well, will have no small cause of anxiety in the susceptibility to magnification of the iron so largely used in shipbuilding. It would seem that the chief source of error in compasses may soon be removed, as it is found that a little manganese alloyed with iron produces a metal with scarcely any capacity at all for magnification. Both iron and steel are now secured against another old foe of theirs, rust, by an ingenious process which coats them with a magnetic oxide of iron.

The sensitiveness of electrical apparatus to changes of temperature has been employed not only in constructing automatic fire-alarms, but also to give notice on ship-board of the approach of icebergs. And electrical appliances can be used not only to register and give notice of changes of temperature, but also of variations in light, sound, and every other form of force, and this in degrees of the utmost minuteness. Indeed so sensitive is Prof. Bell's phonograph to changes in the intensity of light, that he can find no artificial source of illumination which does not create a continuous noise in it. Since the approach of an ironclad ship can be clearly indicated by a delicate electrical appliance, a range-finder has been added to the resources of the United States Navy, whereby its gunners can correctly fire at a ship they cannot see.

Photography to-day performs automatically a thousand services for us which a century ago were the laborious toil of draughtsmen and artists. It does yet more. In camera of the instantaneous pattern we are now able to catch pictures of birds in the act of flight, horses as they trot or gallop—pictures which show that that may of its conventional attitudes are false. What were considered more grotesque in the art of Japan, in its representations of animals in active motion, are now found to be the only to more careful observation than that of the Western world.

It is only of recent years that inventors have begun to understand the full meaning of the old proverb, that "it is a poor rule that will not work both ways." A turbine, which is much the best device whereby to derive power from a head of water; a turbine reversed in motion is one of the most efficient water-lifters an engineer can use. Gramme, a Frenchman, invented what is perhaps the best dynamo for obtaining electricity from mechanical power. His dynamo reversed is a capital means of getting mechanical power from a current.

Sometimes a fact of the commonest kind gives an inventor a golden hint. The descent of a maple seed in the air gave the idea of a screw propeller to its inventor. A new invention so far from its degree exhausting what remained to be found, but lights up a new horizon for exploration. It is like a new octave in music, which multiplies the musician's possibilities if composition by the whole width of his gamut. Or like an extension of the visible spectrum which would enlarge us a bound the whole realm of art and of color.

A Swindler's Suit of Clothes.—An ingenious swindle was recently worked successfully upon a Chestnut-street druggist and a Chestnut-street tailor. The criminal was a young man of intelligent address, whose somewhat shabby clothes were brushed clean and his boots polished. Entering the pharmacy he informed the proprietor that the tailor, whose name he gave, was suffering with dyspepsia, and had requested that some medicine be sent to him. The druggist ordered a prescription, and while it was being compounded, entered into a chat with the stranger, who paid for the bottle of medicine, and, before taking it away, asked the druggist to have another visit ready, and said that the tailor would call for it in a day or two. Then the swindler went to the tailor and ordered a suit of clothes, the price of which was \$50. He wanted the garments made up in a hurry, and they were ready for him two days afterwards. He put them on in the store and left his back number suit to be sent to a fictitious address. "My friend," he said to the tailor, "giving the name of the druggist," "has some money of mine, and if you will walk down there with me I will pay your bill." The tailor and the artful dodger reached the pharmacy. "I presume we are all acquainted," the swindler said as they shook hands. "Now," he continued, speaking to the druggist, "give Mr. [name] his I left here for him any come me for a moment." With that he slipped out of a side entrance, and the druggist handed the tailor a vital wrapped in the customary white paper. "What do I want with this?" asked the sartorial artist. "That," responded the master of the pharmacopoeia, "is what your friend said you were to give him." "Not at all!" the swindler ejaculated. "I understood that you had the cash for the clothes that he got from me." They stared each other in the face for thirty seconds, and made a simultaneous break for the door through which the mutual friend had disappeared. But he was not in sight.

## E. M. JOHNSON,

REAL ESTATE AGENT AND NOTARY PUBLIC.

ESTABLISHED 1879.

## ELLISTON

Is Beautifully Situated.

About 5 minutes beyond the Jubilee Hospital and end of Electric Tramway.

The lots are half acres and run from \$400 to \$750 each, on

## EASY TERMS:

One-fourth cash; one-fourth 4 months; one-fourth 8 months; one-fourth 12 months; at current rates of interest, or 10 per cent. off for Cash.

These prices are one-third of those asked for land on the Esquimalt Road for similar areas, and one-half of the Gorge Road prices.

## MONEY

For Investment on Mortgage, at Current Rates, In Large or Small Sums.

## CONVEYANCING

In all its branches.

## COLLECTIONS

Promptly made and accounted for.

## Large Plans and all information, at E. M. JOHNSON'S,

37 Government Street.

