

FARM AND GARDEN NEWS.

ITEMS OF INTEREST ON AGRICULTURAL TOPICS.

The Wild Carrot Weed—Quack Grass on Sandy Soil—Harrow for Cultivating Corn—The Shepherd's Crook—Etc., Etc.

THE WILD CARROT WEED.

There is scarcely a weed that is more of a nuisance in pastured land than the wild carrot. It is a biennial, like the cultivated carrot, making only small growth the first season, but sending up seed stalks, and bearing its quota of seeds the second year. On poor land it grows very small, but seeds, even though the stalks are only a few inches high. It is hardest to crowd out on poor soil. Where the land is rich and seeded with clover, that will smother most of the plants the first season. If any escape the smothering they will grow up much higher than the clover. After a very heavy rain, so as to wet the soil several inches deep, the wild carrot may be pulled out by putting the hand low down and grasping the top of the root. It is not easy work, and the dust from carrot blossoms is often injurious to those who have severe colds or catarrh.—American Cultivator.

QUACK GRASS ON SANDY SOIL.

Where quack grass is fully established on sandy soil, its roots go down very deep, and it is harder to destroy than is quack in a soil that is clayey or loamy. In the latter, both air and light are better excluded from the quack roots than is possible where the soil is sandy. It is, besides, exceedingly difficult to plow or dig down deeply enough to bring all the quack roots to the surface. But as the quack roots secure permanent sod, they are of less disadvantage on sandy soil, which is often hard to get seeded with either grass or clover. In fact, some sandy soil farmers have told us that they considered the quack grass nearly as much advantage as detriment to their farms. But we have generally noticed that this avowal was made after determined but unsuccessful efforts to get rid of the quack grass, and their praise of its good qualities must, therefore, be taken with some allowance.

ABOUT SILOS.

Two silos built high and narrow are better than a single one which presents a larger surface to the air. Then we can feed from one at a time and expose the less area while feeding is in progress. The old way of cutting corn for the silo before the grain has formed has been wholly abandoned by good farmers. Wait until the stuff has some sustenance in it before trying to make it into feed. Cut it up, ears and all, and keep it well covered.

Results obtained by feeding the corn whether dry cured or kept in the silo, are essentially the same, but there is no doubt whatever that the silo offers much the less laborious way of storing the crop and feeding to the cattle, and in a way, too, which makes the farmer almost independent of the weather at harvest time, for the weather does not interfere much with work of filling the silo. Then the food is all chopped and ready for winter handling.—Farm News.

HANDINESS WITH TOOLS.

One of the most important qualifications needed in a farmer or one employed in farm work is that he have sufficient mechanical ability not merely to use farm tools, but if need be to repair them. This is more than ever true now that so much farm work is done through implements in which the horse, steam or wind power furnish the motive power, while the man's work is only to direct and keep the implement doing its work. Many of these farm tools require much mechanical ingenuity to keep them in order. An unskillful man in charge of a reaper or mower will not only fail to accomplish much, but he will very probably have a broken machine on his hands that it will require a good deal of expense to repair. It is far better to employ men as farm help who are ingenious enough to manage or repair all kinds of machinery, even though they require higher wages. It is this kind of skill that most surely commands good wages everywhere.

THE HARROW FOR CULTIVATING CORN.

The best implement I know of for cultivating corn is the common harrow, which I have used with success. When the corn is three to five inches high I go over the field with the harrow, being careful to have the horses walk astride the row each time. The work may appear wasteful at first. True it may pull down and cover some, but to remedy this evil two, three or more young people or children follow with hoes made as follows: Take a piece of tough board 1x1 1/2 inches and six inches long and into it drive four or five three-inch wire nails one inch apart, get old broom or rake handles and fasten on for handles. These are easily made. I give one to each helper and take one myself. With these we follow the harrow, pulling up the down or covered corn, thus stirring the ground thoroughly, making a good job. The work is mere play. If need be I run the harrow over the other way across the field a few days later, thus pulverizing the ground and giving the corn a splendid start, following the harrow each time with the hoes. After this put on the one-horse cultivator or scuffer every eight or ten days until the tassels are on or you are out of sight in the corn. This was my mode of cultivation last summer

and my neighbors admitted I had one of the finest corn fields in the neighborhood, with scarcely a hill missing.—John W. McKenzie, Canada, in American Agriculturist.

THE SHEPHERD'S CROOK.

How many herders in this country use a shepherd's crook, and how many men are there who know how to make one? Any blacksmith of ordinary ingenuity can make one with a little instruction. Take a rod of spring steel five-sixteenths of an inch thick; weld it to the socket of an old hoe handle, bend it into a hook about four inches long, an inch wide on the inside at the bulge, and seven-eighths at the neck, so that it may spring open and close again on the leg; flatten it at the point and turn it out about an inch or more and back, with a roll or knob on the end, to prevent laceration of the sheep's leg. The wooden handle should be six or seven feet long. With the sheep hook in his hand the herder's labor is greatly lessened and simplified. If a ewe is to be caught it is clumsy and cruel to create an uproar and set all the other ewes and lambs to running about and trampling down the weakest. Instead of that let him quietly reach out with the hook and seize her by the leg, preferably a hind leg, and no great disturbance is created.

SPRAYING MIXTURE FORMULAS.

Paris Green—For destroying insects. Mix one pound paris green, three pounds fresh stone lime and 100 to 200 gallons water. Stir well and don't allow to settle while being used.

Arsenate of Lead—For destroying insects. Mix eleven ounces acetate of lead, four ounces arsenate of soda and 100 to 200 gallons water. Mix the acetate of lead and arsenate of soda separately in about a gallon of warm water, then mix all together.

Bordeaux Mixture—Make a solution containing five pounds sulphate of copper (blue vitriol), five pounds lime and forty-five to fifty gallons water. When applied to orchards paris green should be added to it in the proportion of one-half pound to each forty-five or fifty gallons, thus making a combined insecticide and fungicide. On preparing this solution, take a barrel filled with water and put the lime and paris green in immediately. Then put the sulphate of copper in a porous bag and hang it in the barrel. When copper is all or nearly all dissolved the mixture is ready for use.

Hellebore—Used dry or mixed with water in the proportion of one ounce to two gallons. Is an internal poison but kills some insects by contact.

Whale-oil Soap—For plant lice and other sucking insects on plant in foliage, use one pound of soap dissolved in five gallons water. For San Jose and other scale insects, two pounds of soap to one gallon of water.

Kerosene—This should be applied in the form of a very fine spray at a time when the tree is perfectly dry. Should not be used on damp or cloudy days.

Kerosene and Water—Mix together under pressure in any proportion desired.

Kerosene Emulsion—For destroying sucking insects. Dissolve one-half pound whale-oil soap in one gallon heated water. While hot remove from fire and add two gallons kerosene. Stir mixture until a creamy mass. This thickens on cooling and can be kept indefinitely and diluted with ten or fifteen volumes of water when desired for use.

Tobacco—An excellent contact poison prepared by steeping one pound tobacco or tobacco stems in two gallons of water.—Orange Judd Farmer.

ORCHARD AND FRUIT GARDEN CULTURE.

Trees and fruiting plants in general need fertilizers, but they require tillage more. Cultivation is the key note of successful fruit culture. To seed a growing orchard down to grass is certainly a most unwise and unscientific practice. We should regard our trees as we regard crops of corn and potatoes, and whoever heard of sowing down these last named crops to grass. No, we want a loose mellow soil, to admit sun and air, to promote growth and thrift. We do not wish any crop in our orchard. Let the fruit have all the room and moisture and fertility there is. Keep the cultivation moving, surely until August, to render the soil friable and to conserve moisture.

This matter of tillage cannot be too strongly emphasized.

The really rational mode of pruning is to use principally the thumb and finger for the work, that is, visit the orchard frequently during the growing season, remove surplus branches while they are still in the bud or tender shoots. Why allow the tree to expend much vitality in producing wood which must be eventually cut away? Better by far only allow what wood is actually needed to be grown, and reserve all remaining energy for producing fruit buds and fruit.

The less sawing done in an orchard the better. I do not by any means advise withholding the saw if it be needed.

Scientific pruning is really very useful to successful fruit culture. What I do mean is to urge growers to as far as possible prune the young shoots and thus do away with the necessity of large use of axe or saw.

Thinning is another vital principle of fruit culture. It often requires some courage to thin fruit as it should be done. It seems to be a loss and a pity to destroy so many fine specimens of growing peaches, plums, etc.; but it must be done to secure highest results. Surely one large fruit is worth more than two small ones. The large one not only sells for more

but exhausts the tree less than the two small ones.

We cannot afford to allow a tree to over bear. It means a sure loss.—M. Summer Perkins in Farm, Field and Fireside.

OUR DEADLY FOUR-INCH GUNS.

A Favorite on Board the Best Ships of the Navy.

In every engagement which permits their use, we read of the effective work done by the four-inch guns of the Navy. The main batteries of all four-inch rapid fire rifles, which are altogether the most popular weapons in the service for offensive and defensive purposes on the lighter vessels. The Castine, the Helena, the Machias, the Nashville, and the Wilmington are each equipped with eight of these guns, while the Annapolis, the Marietta, the Newport, the Princeton, the Vicksburg and the Wheeling each mount six of them. The Hancock relies upon four, and the Dolphin upon two as their chief fighting powers.

Even the formidable Iowa has six of them upon her superstructure to deter the approach of torpedo boats, and the armored cruiser New York mounts twelve in her secondary battery. The fastest two vessels in the navy, the Columbia and the Minneapolis, have eight apiece, and the double turret monitor Puritan is provided with six to support her four 12-inch monsters. The chief advantage of these guns lies in their extreme rapidity of fire and ease of manipulation, while their penetrating power at all ranges enables their projectiles easily to pierce all unarmored cruisers and lightly protected gun positions.

This gun of four inches calibre weighs, without its mount, 1 1/2 tons, or exactly 3,400 pounds. Its length is 13.7 feet, and its greatest outside diameter is 13 inches, its total length of bore being 157.5 inches, and the twist of its rifle bore 128.12 inches. The twist of its rifle begins at zero and increases to one in 25, there being 30 grooves. It fires a 33-pound shell with 14 pounds of smokeless powder, which develops a muzzle velocity of 2,099 feet a second and a muzzle energy of 915 foot tons. Such a shot will perforate a seven-inch plate near the muzzle and will go clear through a five-inch plate at 1,500 yards' distance. Ordinary crews of all the gunboats get a rapidity of fire of six a minute out of these 4-inch rifles, four men handling the ammunition, while two sight the piece and fire it.

This speed enables a 4-inch gun to throw as much weight in a given time as the 5-inch rifle, which is practically twice its size, the latter weighing three tons and firing under the best conditions four 50-pound shells in a minute. The best penetration of the 5-inch rifle is barely an inch more than that of the four-inch at all ranges, but in ten minutes the 4-inch gun will throw 60 well aimed shots, while the 5-inch cannot be relied upon to throw more than 20.

A Man's Chance of Life.

In the English Illustrated Magazine, Mr. J. Holt Schoaling works out some interesting results as regards the chances of males at ages 20, 30, 40, 50, 60, 70, 80 and 90, living for 10 years more, 20 years more, 30 years more, etc. For example, as regards 1,000 men aged 20, 939 of them "live 10 years more," i. e., to age 30; that is, 94 per cent. live to age 36 and 6 per cent. do not, so the chance at age 20 to live to age 30 is not quite 16 to 1 in favor of living. Similarly, 539 out of 1,000 "live 40 years more," i. e., to age 60, so that the odds in favor of a man aged 20 living to age 60 are 65 to 44, say 5 to 4, in sporting phrase. Again, as only 10 out of the 1,000 "live 70 years more," i. e., to age 90, the chance of a man aged 20 attaining age 90 is only 1 in 100, or odds of 99 to 1 against him. As to the chances for men aged 50, 70, 80, 90, 1,000 live 10 years more, i. e., to age 60; therefore, we may say the chance of a man aged 50 living to 60 is represented by odds of 77 to 23, or about 7 to 2 in favor of the man aged 50 living 10 years more. This chance, favorable as it is, is of course not nearly as great as the 16 to 1 chance in favor of a man aged 20 living to age 30. Glancing at men aged 70 we see that only 235 per 1,000 live 10 years more, i. e., to age 80; this means that 34 per 100 live the 10 years and 66 per 100 do not, so the chance at age 70 of a man living to age 80 is represented by the odds of 2 to 1 against him. As for men aged 90, 1,000 men alive at age 90, only 4 live to age 100. Thus at age 90, the chance of living 10 years is very small, it being represented by the long odds of 249 to 1 against the man—quite an outside chance.

Protection From Flying Splinters.

In the old wooden vessels of former times, casualties from flying splinters were often as great as those caused by actual shot and shell; and to stop these, nettings of stout rope, thickly tarred and then sanded, were placed next to the sides of the ship. Similar nettings are still used, but they are now made of steel rope, or of ordinary rope and leather, or are woven into a thick mat, which is quite efficacious against small pieces of bursting shell. In addition, many ships are now fitted with steel traverses or bulkheads, placed crosswise of the ship, between the guns, and these also serve to prevent destruction of life by flying fragments.—New York Independent.

Restaurant dining is becoming more than ever the rage in London, England.

Artificial legs and arms were in use in Egypt as early as B. C. 700.

AFRAID OF INDIANS.

Terror Vanished When the Red Men Began to Sing Hymns.

About sixty-five years ago, says a writer in the Montreal Witness, two youths came from Scotland, and struck out for the wilderness of Oxford County, in what was then Upper Canada. They had heard that Indians might be found in the region, and they kept a sharp and somewhat fearful watch. Nearing their destination, they encamped one chilly night by the side of a stream. While they were getting their lunch, hovering over the fire, they were overwhelmed with astonishment and fear by seeing a small band of Indians suddenly arrive.

As it was too late to try to escape, and as the Indians were too many to fight, the young fellows decided to parley with the savages; but their "parleying" was rendered of no effect by the fact that while the Indians spoke not a word of English the Scotch boys were totally ignorant of the sign language in which the Indians tried to converse.

But presently the savages made a gesture which the boys understood. It was a beckoning sign and plainly meant come along.

"Well," said one of the boys to the other, "it is evident that we have got to die, and we may as well die at their camp as here."

"In any event we will die like men," said the other.

"We will."

So they started along, following the Indians, or rather followed by them. Soon they reached a large Indian lodge which they entered. The Indians beckoned them to sit down in front of a large fire in the center of the lodge, which was directly beneath a hole in the roof that served for chimney, window and ventilator.

The Indians offered them food, but appetite had been scared out of them. The Indians ate and then got out hatchets and knives.

"Our time has come," said one of the boys.

"So it seems," said the other, "but let us sell our lives dearly."

However instead of falling upon them with the weapons, the Indians procured a lot of strips of ashwood and went to work making baskets, stripping, measuring, splitting and bending the wood. The boys were a little reassured and yet they agreed that probably the savages would pretend to fall asleep and would murder them in the night. They resolved that but one of them should lie down, while the other would sit up and watch, each taking his turn.

After the Indians had worked at basket making for some time, one of them, who seemed to be a sort of chief, suddenly gave a yell that froze the blood in both boys' veins. The Indians threw down their implements and formed in a circle about the fire, and the white boys. The terrible ceremony of death was about to begin.

Then the chief Indian sounded a note with his voice, and all the Indians began to sing. But what was it that they were singing? The Scotch boys, piously reared, knew the tune well; it was the one to which they were accustomed to sing the words:

How pleased and blest was I
To hear the people cry,
"Come, let us seek our God to-day."

The boys looked at each other in astonishment, and when the Indians had sung this song—in their own language, of course—they sung a greater and more thrilling one, "Rock of Ages, Cleft for Me."

The fears of the boys were gone. In their own tongue, they joined in the song with more unctious, no doubt, than they had ever before known in singing it; and when the Indians had finished their devotions, for it was with a devotional purpose that they had sung, the boys lay down to sleep and slept soundly in the warmth of the fire.

The tribe was one which had been visited by missionaries, and the men had no other purpose than one of grateful hospitality in bringing these wandering white youths to their lodge.

The next morning they ate with gusto to the food which their hosts offered them, and expressing their thanks as best they could, went their way.

What Two Flags Represent.

England's national flag has been called "a triplet of crosses," for it is composed of the cross of St. George, the cross of St. Andrew, and the cross of St. Patrick. Thus: The flag of "St. George for merrie England," a red cross on a white ground, the red lines drawn straight from top to bottom, and from side to side; the flag of St. Andrew for Scotland, a white cross on a blue ground; the flag of St. Patrick for Ireland, a red cross on a white ground, the narrow red lines drawn from corner to corner. By placing the cross of St. George on that of St. Andrew we have "the Jack," as ordered in 1506 by James I, whose signature was always "Jacques"; hence the expression, "the Jack." By laying the cross of St. Patrick over that of St. Andrew and then placing that of St. George over both, we have "the Union Jack," as borne since the union with Ireland in 1800. An eloquent Canadian writer finds that the American flag and the English flag wave together with singular beauty and harmony, "the one proclaiming the starry heavens, symbolical of God's infinite power—the other emblematic of his greatest work, the redemption of mankind."

The Origin of Blue Blood.

After the Moors were driven out of Spain the aristocracy of Spain was held to consist of those who traced their lineage back to the time before

the Moorish conquest. These people were whiter than those who had been mixed with Moorish blood. The veins upon their hands were blue, while the blood of the masses, contaminated by the Moorish infusion, showed black upon their hands and faces. So the white Spaniards came to declare that their blood was "blue," while that of the common people was black. The phrase passed to France, where it had no such significance, and thence came to England and America. It is now used arbitrarily to designate old aristocracy or families proud of their ancestry.—New York Tribune.

THE GUNS OF THE LADRONES.

Old Cannon to be Found in the Islands of the South Pacific.

A cannon being too big to be mislaid, it is generally known what becomes of old guns. The smoothbores of the civil war are known to have been used up in soldiers' monuments and G. A. R. emblems. Condemned cannon of an earlier period now keep the peace in many coastwise towns, buried in street corners to the trunions and protruding upward either the cascabel or the muzzle blocked with an old cannon ball shrunk in. The old forts and the military museums account for a few more. But these uses cannot account for all the big guns of the past, and the melting pot is supposed to have received the rest of this metal of war.

Much of the antique ordnance has been melted down into the pots and pans of peace, but there are very many thousands of ancient cannon scattered all over the Pacific and the East Indies. It causes the experienced island no more surprise to find ancient founders' names on the guns lying in the grass of savage towns than the trader in Africa feels at discovering still in use the muskets that served their turn in the wars of Marlborough. Some of these guns were mounted and employed by exploring expeditions of old, when new-found territory was calmly taken by the first comer. Such are the guns at Nukahiva and Hiva-on which tell the tale of the time when Americans annexed the Marquesas and built up a navy in the Pacific to defend them. Such, too, are the guns at San Juan of the Ladrones, which the Manila expedition has just seized. While none of the batteries at San Juan is modern or efficient, one is conspicuously inefficient. This is a bastion so placed as to protect the old careening beach on which the galleons were hove down to make ready for the long voyage to Acapulco. These guns, richly decorated and piously dedicated, date back to the time when the whole Pacific was a Spanish lake closed to all adventurers, but the stately march of the plate galleons between Manila and Mexico. Some of the guns in this bastion are old enough to have seen service when Drake pried open the rich Pacific.

Others of these guns are pirates' loot from armed merchantmen. Of such acquisition are the many guns in the beach towns of Mindoro and Mindanao and other southern Philippines, where piracy was relinquished only when its profits vanished as the gunboats patrolled the straits. But the biggest trade in old cannon used to be carried on in the South Seas. Every whaler carried a supply as ballast bound out, and each gun was a thing of value at the islands. For a cannon and one keg of powder any savvy chief was glad to equip the whaler with all the kanakas needed for boats' crews. Each chief was anxious to make a show of ordinance, and could not have too many cannon. The guns were seldom mounted; if fired at all they were loaded just as they lay haphazard on the ground, and the one object was to make a noise. The guns are still there on the islands, but the civilized races have put a taboo on powder, and it is long since the South Sea Islanders have heard the sound of their neglected artillery.—New York Sun.

Uncomfortably Near to Fame.

Some lawyers were talking the other day in a Piscataquis town about the quick wit of Chief Justice Peters. To illustrate one of them told a story of what occurred once upon a time between Peters and "Old Cornelius," the porter of a big hotel in Bangor.

The chief justice was then plain Mr. Peters. He had boarded at the hotel for several years and as a matter of course had had a good many frolics and good times there, all of which were fully within Cornelius' knowledge. One day Cornelius came to him in great seriousness. "Mr. Peters," he began, "I am going to publish a book telling my experiences and recollections since I have been porter in the house. How many copies will you take?"

"Thunderation, Cornelius!" replied Mr. Peters instantly. "If you are going to tell what you know, I'll take the whole edition."—Lewiston, Me., Journal.

Austrian Army Shelter Tent.

The Austrians have recently adopted for their army a shelter tent, which when not pitched, is separated into pieces cut to fold over and form storm coats for the soldiers. The material is a light, strong, waterproof linen, bound along the edges with wire braid and provided with cords, which serve the double purpose of fastening either the tent or coat. Upon halting for a night the soldiers remove or unpack their coats in pairs, tie them together and form their tent upon their two rifles, which, with bayonets fixed, are stuck into the ground to form tent poles.

There was a striking clock in Westminster Abbey in 1638.

MADE A REPUTATION.

An Erudite Man's Conversation With a Boy and the Result.

Some good men are naturally such teachers, and so full of benevolence, especially toward the young, that they cannot help spreading wisdom wherever they grow. That the seed may fall upon stony ground is proved by a story which a gentleman, who went hunting into the interior of Nova Scotia, tells in a letter.

The hunter was carried sixteen miles at night by a boy sixteen years old and a horse fifteen years old. The ride was tedious, and the boy driver was inclined to fall asleep. The hunter, therefore, thought to interest him in something.

"I see we are going due west," he said.

"How do you know that?" asked the boy. "Was you ever here before?"

"No, but there is the North Star."

"How do you know it's the North Star?"

"Why there are the pointers."

"What pointers?"

The hunter explained, and told the boy how to find the North Star. The boy seemed wide awake now, and the hunter went on to give him his first lesson in astronomy, telling him how Jupiter was 1200 times as large as the earth, and how Mars showed changes of seasons, how it held boys, and apparent canals and so forth, and how it was supposed by many to have intelligent inhabitants.

When, after his hunting, the stranger returned to the town where he had hired the conveyance and the boy, he found that the people seemed to have a certain humorous interest in him. It was so evident that he was the object of some curiosity that he made inquiries, and finally found a man who could tell him.

"Why," said his informant, "you've made a great reputation for yourself around here."

"In what way?"

"Oh, the kid that drove you over to the other night came back the next day and told all the 'setters' at the hotel that of all the liars he ever heard, you were the slickest."

"What lie did I tell him?"

"The boy said that you pretended to know the number of miles to the sun, and that you pointed to a star that you said was called 'Jumper,' and that you said it was 1200 times bigger than this world, and that you pointed to another star that you said was one where folks lived."

"Oh," says that boy, "you just ought to hear him! He's a peach. Old Haskins ain't in it with that feller for lynx. I tell you he's the biggest liar in Nova Scotia. I'll point him out to you when he comes back."

The boy had pointed him out, and he was at the moment enjoying the reputation of the champion of all the liars who had ever come to Nova Scotia.

Riveting Electrically.

One of the new phases of electricity about shipyards is for electrical riveting, this being claimed to be a more efficient system than either the pneumatic or hydraulic. If a central generating station and system of transmission wires is already a part of the yard, and there are very few yards where this is not the condition, electrical riveters will be less expensive than laying down any other system. As regards quantity of work, an electrical machine is stated to do 1,200 rivets in a day of ten hours with three men and a boy. The electrical riveting machine can be moved about at will and will work in any position. The pressure of the die for various sizes of work is easily regulated in the machine by an electro-magnetic clutch so that only the necessary amount of work is done to suit the size of rivet.—Pittsburg Post.

About Coughs.

Every person who coughs should not alarm himself with the idea that he is in a bad way. Experience has convinced us of a fact that there are two distinct kinds of coughs—one proceeding from an affection of the lungs and air-tubes, as in a cold, the other proceeding from effervescence in the stomach. The lungs cough is a symptom which all know to require attention, lest serious consequences ensue. The stomach cough is a much more simple matter, and may easily be got quit of. It is caused by the food and drink which are put into the stomach effervescing, and producing an irritation. A knowledge of this fact ought to lead persons so affected to ponder a little on the nature of their ailment and the tone of their digestive powers.—New York Ledger.

A New Method of Handling Grain.

The conveying of large quantities of grain from one point to another is frequently attended with very serious loss, and plans of all sorts have been adopted at one time or another to avoid this waste. One of the newest ideas in this line is the carrying of grain in tight boxes or tanks and transferring it from one receptacle to another by what is equivalent to pumping. Flexible pipes are distributed through the tanks and powerful engines draw the grain in at one end of these pipes and deliver it at another, very much as water is conveyed. In addition to ease and rapidity of handling it is claimed that the grain is benefited by the current of air which naturally passes through it during this pumping process.—New York Ledger.

In Illinois during the past year 115 coal mines were abandoned and 79 mines opened.

Artificial limbs are usually made of willow on account of their lightness.