Tuberculosis in Cattle and People.

At the International Congress of Veterinarians, held at Brussels last year, there was an exhaustive discussion of the following questions relating to tuberculosis, phthisis, or consumption, as it is commonly known:

First—What is the influence of heredity upon its propagation?

Second—What is the influence of contagion?

Third—What are the primitive measures to be employed against the bad influence that may be produced by the utilization of the meat and milk of animals affected with the disease?

The concluston is reached that tubercle is propagated by hereditary and contagion, and numerous cases were cited in support of this view. As to the infectious nature of the disease there has been little dissent, especially since the discovery of the bacillus of tubercle. In view of the fact that consumption is transmissible by infection, the importance of adopting such measures as will prevent propagation of disease was recognized. In opening the discussion Mr. Lydtin said: "Phthisis is so common a disease that it deserves before any other ailment the name of universal panzotoic. This disease not only touches the preservation of our cattle, but also the health of man. If we succeed in solving the question we shall have reached a noble object—that of protecting at the same time the prosperity and health of the public."

The following resolutions were presented, as embodying the opinions of the veterinarians there assembled, and may be taken as embodying the views of many if not most of the scietific men who have made this matter a special study:

Tuberculosis is a malady which is transmissible by heredity and by contagion. It is a disease which should be combated by sanitary police measures.

Every stock-owner should be compelled to declare to the authorities the existence of tuberculosis among his animals, and should give notice when he observes any symptoms which lead him to suspect the existence of the disorder. It should also be compulsory to put the suspected animals in such a position as will prevent risk of the extension of disease to other animals.

This obligation is to be made to apply to every person having charge of animals in transit, and also to the owners of stables or pastures in which animals are kept. The same obligation to give notice of tuberculosis is to rest upon all veterinary surgeons or persons concerned in treatment of the diseases of domestic animals; also on all whose business it is to destroy or utilize or in any way manipulate the carcasses of animals. The existence of the disease and its locality is to be made public, and even in the herd in which it has appeared is to be named.

Meat from tuberculosis animals is not to be sold for consumption unless it is certain that the disease was in the incipient stage, and that the meat presents the appearance of being first-class in quality.

The inspection of animals afflicted with tuberculosis is to be performed by a veterinary surgeon who is to be sole judge as to the fitness or otherwise of the meat for human food.

Milk of diseased animals is not to be used for food of man or animals, and milk of animals which are suspected of contamination is not to be used until after it has been boiled.

Compensation to owners of diseased animals for losses sustained from the operation of the above police measures is to be provided by the State; and, as a means for providing the necessary funds, it is proposed to adopt a system of compulsory insurance, every owner of cattle being compelled to subscribe a certain sum in proportion to the size of his herd.

The popular idea in America has been that the domestic animals of this country, especially the neat cattle, are almost entirely free from contagious diseases, but in the strong light thrown upon the matter by the investigations following England's act in forbidding the admission of American cattle, the truth has become widely known. It is found that contagious pleuro-pneumonia has had an almost uninterrupted existence in the United States for many years; anthrax, lung-worms and Spanish or Texas fever kill many cattle each year, and actinomycosis has been seen almost every day of the last ten years, at least in the cattle markets of the West. Milk, butter and meat convey to mankind the living germs of tuberculosis, with which there is no doubt the cattle of America are more or less affected. By this means this dread disease, which has killed more people than have been killed by wars, is kept in existence and its hold upon the people is extended day by day.

According to the conclusions reached by M. Daremburg, and set forth by him before the Academy of Medicine of Paris, tuberculosis is transmissible by inoculation, inhalation, or by alimentation; it is always caused by the absorption of a germ from without; when occurring by inhalation the quantity of the contagion is of little moment; it can operate only in a suitable soil. Contagion is an influence to which all are exposed, but which is operative only in those individuals in whom hereditary or acquired vices of nutrition have prepared a field suited to the growth and reproduction of the germ. Local and general tuberculosis differ only in degree. Scrofula appears to be a diathesis, while tuberculosis is an infection engrafted upon a diathesis. The infectious germs are not usually inherited, but rather the vices of nutrition which have provoked the disease in the ancestors. Finally, the learned gentleman concludes that the destruction, through attention to general hygiene, of the causes which prepare a fit soil for the reception of the germs, should be a principal object in the treatment of the disease. After the disease is established the attack should be made upon the infectious agent, to put a stop to its existence and increase.—*Chicago Tribune.*

Breaks in Wool.

Farmers who keep sheep are sometimes painfully surprised when the wool is examined by a buyer to find the fibre breaks off in the middle at some weak spot and the wool is rejected. This is an exceedingly bad fault, as it makes the wool almost worthless except for felting, and buyers are extremely cautious in looking for it. The cause is bad care in the winter. Exposure, irregular feeding, or anything that weakens the sheep produces this effect by stopping the growth of the wool until the sheep recovers its health. Many farmers have the belief that sheep do not need water in the winter, and that eating snow is more conducive to their comfort than pure fresh water. Thirst interferes with digestion. Any animal can better go without food for a week than be deprived of water for half that time. Water is food in every sense of the term, for it is a necessary of life and contributes seventy-five per cent of the bulk and substance of an animal, and, as without sufficient water to dissolve the food this cannot be digested, the want of water is not only a serious deprivation of an absolutely indispensable substance, but it produces partial starvation in another way, because the non-digestion of food is equivalent to short rations. This so common neglect is one of the frequent causes of break in wool. Every other neglect that interferes with the continuous growth of the sheep is another cause. The present time with its usual rigors calls for precautions in this respect.—*N. Y. Times.*

Treating a Lumpy Soil.

There is a difference in this kind of soil, depending upon the character and condition of the land when plowed. If broken up when dry and hard, the lumps are readily reduced after a rain has soaked them, if allowed to dry somewhat. Still, the reduction is not fully what is desired; the ground is not mellow; only an approach to it. With the aid of frost, a satisfactory condition can be reached in most cases, by fall plowing. Where the clay is quite obstinate, a good coat of manure applied after plowing will be an additional aid. Thorough working of the surface as early in the spring as the ground will allow, and no later—the point is important—will secure a good seed bed, with the promise of a good crop, the seed being sown at the time of working the soil. The land thereafter can be kept good, and even improve in condition, until it becomes a mellow clay loam, which is among the best of soils. It only needs to continue to work in manure and vegetable material, which sod, green crops and vegetable stable absorbents best furnish. Such land, with the necessary drainage, makes the best general soil, allowing all kinds of crops to be grown, and most of them to the greatest perfection; for wheat, not surpassed; for oats, barley and peas, equally good; for corn, in a warm, showery season, reaching maximum yields, the rich, warm river bottoms exceeding it only in cold seasons. As to grass and clover, no soil can equal it either in quality or quantity.

Here is where farmers have a great advantage—greater than they are generally aware of. Instead of availing themselves of it, what do we see? Comparatively little clay soil can be found that is not more or less hard in a dry time, and less productive than it ought to be. Even where manure has been used, the manure, owing to the unfavorable mechanical condition, does not afford the same benefit that a mellow soil admits of, though it will aid somewhat in improving the texture. Then there is the delay of putting the crop out in the spring, owing to the wet condition of the land, the water withdrawing slowly, and the further danger of rain extending the delay, sometimes till too late, the soil becoming more and more packed as the time is extended. To plow it will not do.

Right here is where the great danger comes in, and where clay soil receives its greatest hurt. It is usually wet, especially early in the spring. Even if comparatively dry on the surface, when turned up it will show mud, or an approach to it, which in drying becomes baked and hard, and no amount of rain during the season can reduce it to mellowness. It may be broken by implements into smaller lumps, but the harshness, the brick-like quality, remains. The frost of one winter only partially corrects it. It will take years before it can be brought to a fine mellow condition, requiring the action of the elements in connection with the use of implements and barnyard manure. Instead of this the spring plowing is sometimes repeated, making bad worse. When thus reduced it is seeded down, with the chances against a good catch. Not unfrequently it turns out that the seed has been lost, and the land has to undergo another plowing, with sometimes a second failure at seeding; but oftener a poor catch is made to do, giving a chance for weeds if the ground is strong enough to grow them; if not, manure will bring them. I have seen many fields of this character. In one case the weeds were plowed under, giving them a shallow covering and, when rotten, working the surface with cultivator and harrow, securing thus a tolerable seed bed followed by a fair crop of grain and successful seeding down.

Clay soil is the most difficult of all soils to manage. It requires the most careful treatment, and always, whether in preventing hurt or in curing it. But it is worth the attention. This attention is, to a greater or less extent, thrown away if the land lacks drainage, which, it is well known, it does to a large extent. Is it a wonder then that our clay soil, exposed to the hot sun, and subjected to bad treatment in an undrained state, should yield so lightly, often not paying expense, when it has the elements of the best of soils, waiting for a chance to develop them?

It is doubtful whether our efforts to reduce cloddy lands with implements pay. A certain reduction, to get rid of the roughness, is necessary, but the finest condition to which it is reduced is only to lessen, by division, the size of the lumps, preventing that close contact with the roots which is necessary to a successful growth, leaving the soil open to the effect of drought. Time is required to correct such soil, and the means are heat, rain and frost, aided by manure. Plow when the soil is dry—never when wet, not even in the fall, though it is less harmful, especially when done late enough to get an effect of the frost soon after, or before the ground is dried out. But sometimes a heavy snow will fall before the ground is frozen, and remain till spring—as was the case last winter—and pack the ground, leaving it in a condition for the spring winds and sun to dry hard. The safe way is to make it an inflexible rule to plow when dry enough to prevent packing and a greasy appearance. With the land drained there is no difficulty in effecting this. Then there will be little trouble from lumpy soil. Prevention, and not cure, is the true doctrine here, as with sickness.—*F. G., in Country Gentleman.*

Corns.

A correspondent asks for description and treatment of corns in horses' feet. At first they are simply bruises of that part of the sole which is between the bars and wall of the heel, but after awhile is frequently the formation of a horny tumor which presses on the quick. In some cases the bruise causes active inflammation and produces matter, which may burrow generally toward the coronet, but sometimes around the toe, and causes disease of the cartileges or the bone. In some cases when the corn is pared out the heels curb forward and inward, having lost the support of the sole. The inflammation and suppuration will in such case be kept up. The presence of corns may be determined by lameness in the animal, with a tendency to "point," with the heel slightly raised when at rest, and a short stumbling step when in motion. If the affected heel is tapped with a hammer the animal will wince. The treatment, if it is a recent bruise and uncomplicated, is to apply a shoe with the bearing surface of the affected heel rasped down, and the feet are placed in water or the walls kept moist with wet swabs and the sole with oil meal. Remove the shoe before it presses on the heel. If suppuration has taken place, pare down the heel until the matter escapes, remove all horn detached from the quick and pare the horn around this to a thin edge, poultice until the surface is smooth, dry and free from tenderness, and then put on a bar shoe, a leather sole and a stuffing of tow and tar. Horny tumors must be pared out, and treated in the same way. *Western Rural.*

—The saving effected by having wide tires on farm wagons is noted by the *American Cultivator.* It is strange how slowly so obvious an improvement is adopted. Like the use of "blinkers," the narrow tire hangs on in spite of reason and common sense. The draft is lighter, and the roads are not so cut up with the broad as with the narrow tire—two conclusive arguments in their favor.

"Splints."

By many persons splints are regarded, after a horse has attained a certain age, as a necessity to his existence, and though there is a deal of truth in the observation that scarcely one horse at five years old is unaffected, yet it is not necessarily true. Splints are to be found among all classes of horse-flesh, but the question of their presence, in every instance, is not proved by practical experience, and, undoubtedly, their existence is materially controlled by the circumstances under which the animal has been reared and the management he is subjected to, both before and after being put to work.

Nature and Causes.—A splint is a conversion of the fibrous material uniting the cannon-bone and plint-bones into bone. Generally there is a small bony outgrowth present with it, but the condition may exist without such evidence. Splint in the fore legs is more frequently found on the inner side, being more under the center of gravity, and the limbs having a greater liability to concussion. In the hind legs it is generally on the other side, and here is more often produced by a blow or kick. Splints found on the limbs of aged horses are, as a rule, of but little importance, but those on animals three or four years old are very objectionable. A large splint is more serious than a small one, owing to the liability of the animal striking it with the other leg when in action. Position, too, carries a deal of weight; when far back on the leg it is a great drawback, as here it usually interferes to some extent with the working of the suspensory ligament. When close under the ruse it also frequently hinders the proper flexing of the joint, and in this place is more likely to be struck by the opposite leg; when situated on the outside of the limb a splint is seldom of any consequence. When the formation of a splint is accompanied by an outgrowth of bone and the inflammatory action in the part is got rid of through the case being properly treated, the probability is that the outgrowth will become partially if not wholly absorbed; but a splint, when once formed, always exists, whether there be any decrease or not in its size. Hereditary predisposition has undoubtedly much influence in the case of splints. Of other causes, concussion is the main, and injury from external violence.

Symptoms.—Lameness of the animal will draw attention to the limb, and on passing the hand down the groove, between the cannon and splint bones, an enlargement will be felt; when there are two or three little elevations in a line, it is termed a chain splint. In young horses the lameness, whilst the splint is forming, is most marked; it is evinced when the weight of the body is thrown on the limb, and just so much whether the horse is run on soft or hard ground. The leg, particularly when the suspensory ligament is interfered with, is brought with an outward movement to the ground, and often there is a disinclination of flexion of the knee to its fullest extent. There is pain on pressure of the part where the splint is forming, and more heat in that leg than the other.

Treatment.—Frequently in young horses, unless the lameness is very acute, the throwing out of work, feeding on low diet and putting on a wet bandage will be sufficient. In the more severe cases, and the patient is older, he should be well prepared for and have a dose of physic, followed by a low, succulent diet. The leg should be well fomented and a warm wet bandage applied and kept continually wet. Cooling lotions are good aids. As soon as the heat of the leg is sufficiently reduced, blistering is necessary, and perhaps nothing is better than the application of ointment of biniodide of mercury for three or four days consecutively, till a good scurf is raised. In the course of from two to four weeks, as a general rule, the horse will be fit for use again. Where the splint is large and the lameness obstinate, setoning, or that form of firing known as pyro-punctuation, is adopted. In the most severe cases the operation of periosteotomy is practiced. In a general way, however, these latter operations are not requisite, and for the former cases nothing more than has already been spoken of is necessary.—*Dr. Smith in Farm and Home.*

A Gold Coast King.

"Old King Peter, down on the Gold coast," said a former African trader to a *Tribune* reporter recently, "was a great 'swell' among the monarchs of that region. He was a rich old fellow and had a large wooden palace and fifty wives. I have frequently seen him after dinner lying on a mat, his head supported by one wife, while two others fanned him. He fancied himself a great magician and was so regarded by his subjects. He had been a great fighter in his day, but as he grew old he gave up war and devoted himself to trade and necromancy. One day I wanted to go aboard our ship, which was lying off the King's village. The surf was so high that no boat would venture out. I called on the King and found him just disposing himself for an after-dinner nap.

"'King Peter,' said I, 'what time surf go down? Me want go aboard ship.'

"'Surf go down?' said the King; 'me make surf go down all one time.'

"He took a little vial from a closet, and going to the beach poured the contents of a vial on the water, chanting an incantation the meanwhile. The next day the sea was as calm as a millpond, and every boat in the village was out. The old King was proud enough of what he considered his complete victory over the ocean. Poor old Peter, he is dead now, and all his wars and conquests and all his necromancy are dead with him.

"It is extremely dangerous down there for one not acclimated to get wet. If a boat is overturned in passing through the surf, a person thrown into the water is sure to have the fever, if he isn't drowned. I was going ashore one day in a boat in which there were some women. Being younger than I am now and much more gallant, I stood up in the boat and held up my cloak so as to shield the women from the flying spray. Of course I got wet myself and a few days after I was taken down with the fever.

"Once when we got down there we took the Attorney General of Liberia along. He wanted to prospect for gold. The natives are extremely adverse to having any prospecting done in their country. They want no gold nor anything else taken away, except in the course of trade. We did some digging, but the natives opposed all sorts of obstacles to us and we were unsuccessful. All the gold we got we got by barter. The natives do not take very kindly to their civilized brethren of Liberia, whom they call black gem'man.'"—*N. Y. Tribune.*

—John T. Raymond, who is an inveterate gamester, tried to match somebody for his brougham and horse against a one thousand dollar bill. Not finding any matches he raffled the turnout at sixty chances at twenty-five dollars each. At the beginning of his season last year he won a pair of horses and a set of harness by matching a coin.—*N. Y. Herald.*

—Arrow-root gives a certain richness to sauces which renders less butter necessary than if flour is used for thickening.—*Troy Times.*

—Dr. A. S. Walker, of Scottsville, Ky., fell dead at the bedside of a patient recently.

RELIGIOUS AND EDUCATIONAL.

—The Argentine Government donates 4,000,000 National dollars to further public instruction in the provinces and for the erection of three hundred schools.

—Mrs. Mary Wright Sewall, in her girls' classical school in Indianapolis, has secured for general every-day use a "school dress with loose waist and short, light skirt, and common-sense shoes."—*Indianapolis Journal.*

—Rev. Jasper is a martyr to science. He says the membership of his church has dwindled from two thousand to about twenty since his remarkable utterance: "The sun do move." But he will never retrogade from that great truth, not even to get back all his wandering sheep.—*Chicago Inter Ocean.*

—The strict Baptist churches are dying out in England, so one of Spurgeon's pupils tells the New York Baptist Ministers' meeting. Spurgeon's church is now about the only one which requires its members to be immersed, and even that lets anybody come to the communion table.—*N. Y. Times.*

—The pressing need of educational reform is not in adding to the attractiveness of school as a place of daily resort, nor chiefly in rendering the study more thoughtful, but mainly in this: To so arrange the course of study that the average boy and girl can acquire the rudiments of English education within the time which their parents can afford to send them to school.—*Chicago News.*

—The family of Indian girls at the Lincoln Institution in Philadelphia was increased to fifty recently by the arrival of twenty-seven girls from the training-school at Carlisle, Pa. They will be joined by twenty-five more, and this will fill the Philadelphia quota. Among the tribes represented are the Pawnees, Sioux, Cheyennes, Comanches, Diggers, Osages, Omahas and Delawares. The girls are divided into two divisions, each of which devotes half of each day to household duties and half to study. They rise at six o'clock in the morning and go to bed at eight in the evening.—*Philadelphia Record.*

The Kangaroo's Tail.

Science, which in these modern times utilizes everything, has found a new service for the remarkable appendage which makes the kangaroo one of the strangest members of the animal kingdom. Surgery has been practically revolutionized in the last decade, and one of its most important advances has been made in the tying of blood-vessels and the closure of wounds with the tendons of animals. It has been determined that animal tissue properly prepared may be inclosed in wounds and become so changed that it is ultimately replaced by living tissue, and this, in its practical bearing, is one of the most important contributions to modern surgery. Catgut thus prepared and applied came into a very wide use, and at first seemed all that could be desired. The connective tissue bundles of which it is composed are much less strong and trustworthy. The tendons of the large animals were brought into use and found much more serviceable.

Many experiments have been made in this direction, and knowledge was sought from the Indian tribes who have long used these materials in the place of thread in the sewing together of skins for tents, robes, making of clothing, etc. The tendons from the tail of the squirrel were found composed of long parallel fibers, and could be split as fine and even as floss silk. These, however, were not large and long enough for most surgical purposes, and the thought arose that the immense tail of the kangaroo would furnish tendons of size and strength sufficient for any purpose. Through the kindness of Mr. Alonzo H. Newell, of Boston, for many years a prominent merchant in Australia, a supply of these tendons was secured some years since, and have been used quite extensively by the surgical profession. For such purposes they are far better than those of any other animal, not excepting the great Northern moose of America. The tail of the whale furnishes tendons of remarkable length and size, but they are fatty and fray out, and on this account can only be used as ligatures of the larger size. The tendons of the tail of the kangaroo can easily be split into threads two feet in length, rivaling silk in strength, softness, fineness, beauty of color and finish. Such tendons for ligatures or sutures promise to supplant silk almost entirely in surgery. They are of a commercial value, which should cause this innocent, innoffensive animal to be considered as a friend rather than an enemy of mankind, and not to be slaughtered because it consumes a little of the superabundant pasturage of Australia's enormous ranges. When killed these tendons should be carefully preserved, split in the fresh state, quite before any decomposition has ensued, into bundles of thread of different sizes, and dried.

They keep perfectly well in this condition, and this is the only preparation required to make them an article of exportation. It is with difficulty that they can now be obtained, except in London, and they would find ready sale in every commercial center of the world. Dr. Henry O. Marcy, of Boston, in an article upon the animal ligature, published in the New England *Medical Monthly*, says: "Tendons from the tail of the kangaroo have proved the most satisfactory of any yet tried, after experimentation with those of many animals, since they are of sufficient length and size for any purpose, and yet may be split very fine and even, when dried, they closely resembling in appearance the silkworm gut. There can be little doubt that these tendons, antiseptically prepared with care, offer certain marked advantages over catgut either for ligature or suture, where it is important to have them remain in the tissues unchanged for a considerable period. In modern wound treatment the carbolized animal ligature fills a place of the greatest importance in conjunction with and second only to drainage and antiseptic protection."—*Boston Advertiser.*

What the Color of Buoys Mean.

"I will tell you something about painting buoys," said the pilot. "When you enter any harbor in the world where the channel is marked by bouys you will find that those on your right as you pass in are painted red, and those on your left black. If you should see one painted in red and black horizontal bands the ship should run as close to it as possible, because that indicates the center of a narrow channel. Buoys with red and black vertical stripes always mark the ends of spits and the outer and inner ends of extensive reefs, where there is a channel on each side. When red and black checkers are painted on a buoy it marks either a rock in the open sea or an obstruction in the harbor of small extent with a channel all around. If there are two such obstructions and a channel between them, the buoy on the right of you will have red and white checkers, and the one on your left will have black and white checkers."

"Supposing a wreck obstructs the channel?"

"A green buoy will be placed at the sea side of the wreck, with the word 'wreck' plainly painted on it in white letters, provided there is a clear channel around it. Otherwise an even number will be painted in white above the word 'wreck' when the buoy is on the right side of the channel, and an odd number if the buoy is on the left."—*N. Y. Star.*

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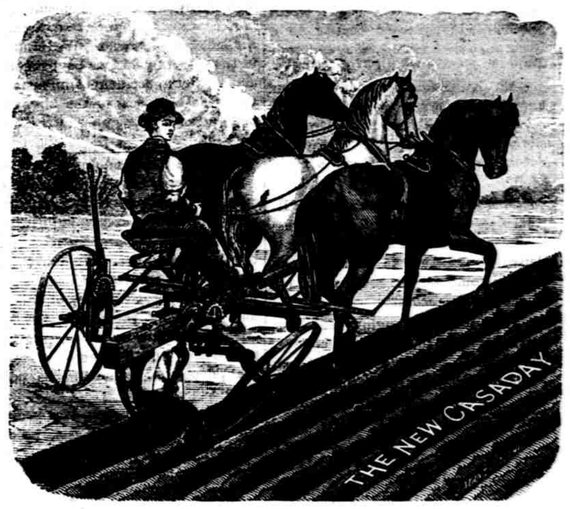

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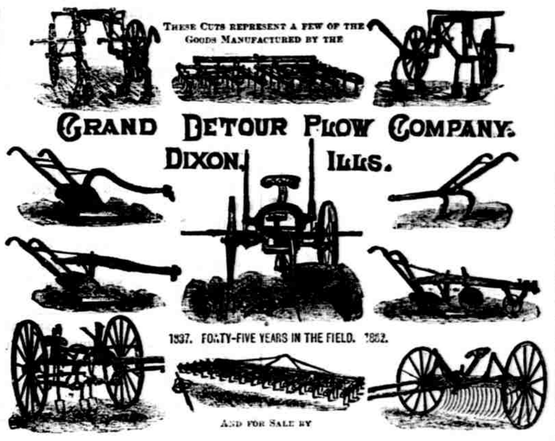

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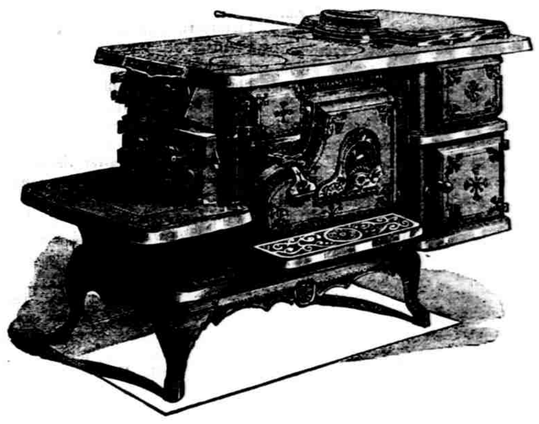

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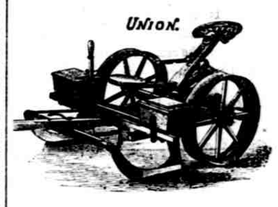

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