

Matters in Nebraska.

THE STATE IN A NUTSHELL.

There was liberal attendance at the Sappy county fair and the exhibits were fine.

The record of the mortgage indebtedness of Cumby county continues to show a gratifying decrease.

Edwin Botstrom, aged 21, fell under train No. 4 at Ogalala and was killed. His body was badly mangled.

Harlan Wyman, a 16-year-old Lincoln boy, was killed by the street cars, under which he fell from a bicycle.

A Fremont gardener raised 160 bushels of potatoes off two town lots and will dispose of them at \$1 a bushel.

Fifty cattle were inoculated at the farm of John Warren north of Beatrice to prevent the appearance of blackleg.

The home of Dr. R. W. E. Casterline of Graf, Johnson county, was burglarized recently. Thieves entered some time between 2 o'clock in the morning and daylight and made away with \$210 in cash.

Dom Mortes, a prominent German farmer living four miles north of Table Rock, was severely injured by being struck by a train two miles north of town. He was sleeping on the right of way.

The farmers in the vicinity of Fairbury are becoming indignant over the operations of chicken thieves and extensive raids are reported almost daily. At one place over 400 chickens were taken in one night.

The Fremont league of baseball clubs has \$512.25 in its treasury, indicating a total paid attendance at thirty games played amounting to 5,123. After paying ground rent and expenses there will be \$350 left.

The run on corn at the Beatrice cannery factory the other day was a record-breaker in the history of the plant. More than 30,000 cans were put up. The pack of corn will be unusually large this year and of a fine quality.

A peculiar disease, pronounced as lackjaw by veterinarians, has made its appearance among cattle on the farm of John Lenz a few miles southwest of Beatrice. From the symptoms it was at first supposed that the cattle had blackleg, but it later developed that it was lackjaw.

A movement is on foot in West Point to organize a Commercial club, whose object it will be to foster the trade of the city, improve the avenues of communication, encourage manufacturing and generally to exercise supervision over the material interests of the city.

Charles Rosencrans, a Papillion man, who has been working in South Omaha at the carpenter trade, has disappeared and every effort to locate him has failed. He received a telegram at his boarding house in South Omaha a week ago, took his departure at once and has not been seen since.

Word has reached Beatrice that Bert Dodge, who left that city several years ago and located at Houston, Tex., has become a millionaire in the Texas oil belt. Dodge purchased 400 acres of land that is just now in the center of a new district and a few days ago big gushers were struck on the land.

The Frontier county fair has closed. It was one of the best fairs in the history of the county. The attractions during the three days were many and varied.

Mrs. Selbold, living five miles from Papillion, had an experience from the effects of which she will not quickly recover. During the absence of her husband, Andrew Selbold, the hired man became suddenly violent, and with a revolver in one hand and a shotgun in the other, threatened to exterminate the family.

Otis Hefflinger, who was arrested last spring at Concordia, Kas., in company with Bill Blowers, on a charge of stealing a team of horses from his father in Beatrice was arraigned in district court and pleaded guilty to the charge. Judge Letton sentenced him to one year in the penitentiary. As Hefflinger has served seven months in the county jail this time is to apply on the sentence. Fred Davis pleaded guilty to stealing chickens, but the court did not sentence him, as this is his first offense.

No clue has yet been found to the burglars who entered the Union Pacific depot at Dannebrog. It now seems that a small haul was made, about \$6 in change, a gold watch, quantity of jewelry, some clothing and other property having been taken. The thieves left on a handcar.

Rev. E. A. Osborne, rector of St. Luke's Episcopal church, Wymore, has accepted a call to St. John's church in Brooklyn, N. Y., and he and his wife will go there about October 1.

The Fillmore County Independent Telephone company have completed the installation of their local village exchange in Grafton. Many farm residences have also been installed and more will be put in at an early date.

The old soldiers of the district comprising Brown, Keya Paha, Rock and Holt counties closed their annual reunion at Bassett. Forty-five soldiers were in attendance. Judge Barnes of Norfolk and Captain Fisher of Chadron delivered the principal addresses.

Harry Vertes, injured several weeks ago near Beatrice by a bridge giving way while crossing it with a threshing machine, in company with Charles Földen, who was killed, has begun suit for damages against the county in the sum of \$5,000.

Mabel Beah, a little girl whose home is in Blue Springs, was so badly burned at Beatrice that she would die. In passing a gasoline stove her clothing caught fire and she immediately ran out in the street enveloped in a mass of flames.

NEBRASKAN SUICIDES ABROAD.

John D. Kilpatrick of Beatrice Takes His Life in New York.

NEW YORK—Ruined by reckless speculation in Wall street, John D. Kilpatrick of Beatrice, Neb., 27 years old, killed himself in his bachelor rooms in the fashionable Martinique apartment house, 56 West Thirty-third street.

The bullet from his revolver lodged in his heart after passing through two letters and an unmounted photograph of a handsome young woman, which were inside his waistcoat pocket.

Young Kilpatrick was a director and stockholder of the New York Import and Transportation company and a member of the firm of Kilpatrick & Collins of Nebraska, the largest railroad contractors in the country. He had inherited a large fortune, all of which, it is believed, he gambled away on the stock market. He lived at the Martinique with Charles Lindley, who had been his classmate in Ann Arbor university. He had come to New York a year ago after a tour of the world and connected himself with the New York Import and Transportation company, of which J. Edward Lombrie, his stepfather, is president.

According to Mr. Lindley, Kilpatrick had been speculating heavily on the stock market for several months past. Another story is that the young man had been paying attention to a society girl, who refused to marry him. Some of his acquaintances declare it was for love of her that he died.

Kilpatrick was a graduate of Ann Arbor university. He enlisted as a private in the Spanish-American war and after being promoted to a lieutenant joined the army in the Philippines and fought under General Funston. He was a native of Beatrice. On his body was found \$4.85 in change and a gold watch and chain. Many scraps of torn paper littered the floor of his room. The revolver used was a brand new one, loaded with cartridges from a freshly opened box.

CAUSE OF CATTLE MANGE.

A government bulletin says: Scabies, or mange, of the ox is a contagious disease caused by a parasitic mite. The mite is found on the skin of the cattle and is transferred to other cattle by contact with the scabs of the class Arachnida. The mite is one which most frequently affects the skin and gives rise to great irritation and itching by biting, and is most numerous upon the head and neck and shoulders, at the base of the horns, and the root of the tail. From these points it spreads to the back and sides, and may invade nearly the entire body. Its principal manifestations are more or less numerous papules, excoriations, and abundant scaling off, or desquamation, of the skin, falling out of the hair, and the formation of dry gray-brownish scabs. In the course of time the skin becomes thickened, stiff, wrinkled, and acquires the consistency of leather. When mange has spread over a large surface of the body, the animals lose flesh and become weak and anemic, rendering them constitutionally less able to withstand or combat the effects of the mites. At the same time the decreased vigor and lessened vitality of the affected animal prevent the more active attention of the mites and the further extension and intensification of the disease. Thus we have cause and effect working together, with the result that scabies, or mange, in cattle may in some cases prove fatal; especially so when the mites are abundant upon the latter part of the body, in the latter part of a severe winter among immature and growing animals, or those of adult and full age when in an unthrifty condition at the time of becoming infected. There have been noticed variations in the progress of the disease depending upon extreme seasons—wet weather in winter alternating with improved weather in summer.

KEEP UP SEARCH FOR MADISON.

HASTINGS—Small losses were hastily organized here and continued to search the ravines northwest of Red Cloud for Madison, with no results. The officers have not yet returned, but it is believed that Sheriff MacArthur has gone to some point south of Lincoln to work on a clue there.

TOPEKA—The Smith county officers have not yet succeeded in apprehending Thomas Madison, the supposed murderer of three women in that county. Madison is supposed to be somewhere in Nebraska. Governor Bailey offered a reward of \$300 for the arrest of Madison.

CONVICT MAKES MISTAKE.

E. L. Simon, a convict at the state penitentiary, is roaming around the country somewhere and Warden Deemer is again up in the air over the slowness of the contractors for the new steel cells. Simon was allowed to roam outside the walls for a little while and he is still roaming, leaving a year behind him. He had been shut up from Saunders county for trying to take a shot at a tenant with whom he had trouble.

FOUND DEAD ON BRIDGE.

COLUMBUS—Henry Rudat, a farmer living south of town, was found dead on the Loup river wagon bridge. He was coming to town with a load of corn and, while no one witnessed the accident, indications point to the fact that the neckyoke came down and Rudat was either dragged from the wagon or fell off and his skull was crushed by one of the wheels of the heavy load. Rudat was a well-to-do farmer, 54 years old.

MORTONS DONATE LAND.

NEBRASKA CITY—The Overland Investment company and Morton brothers of Chicago have made an offer of twenty acres of ground south of Morton park providing a local country club is formed. The Mortons will build a \$2,000 club house.

FREMONT MAN IS KILLED.

LAS VEGAS, N. M.—Russ Povova of Fremont, Neb., fell from a passenger train here and was killed.

LIVE STOCK

Feeding the Dams.

With regard to the grains best suited to the nourishment of the female while carrying the young, it is only necessary to say that these should, for the most part, be rich in protein. These foods help to build muscle and keep the nervous system in a vigorous condition, and hence the foetus is more likely to be well nourished, and be strong and healthy. Carbohydrate foods, such as corn meal and other starchy products, should be avoided for reasons in opposition to those already advanced. Foods thus have a very important influence, not only on the health of the dam, but on the development of a vigorous offspring, and the nourishment of the female should receive more consideration at the hands of the average breeder. It would not be a difficult matter to provide an abundance of the most useful foods if more care and forethought were given to the rotation practiced on the farm, and the benefits accruing to the breeder are such that he can well afford to adapt his rotation to the best needs of his stock. The importance of nourishment to the dam so as to produce a foetus of good quality is originally recognized. While the size of the foetus is probably controlled by the dam, its after development depends largely on its proper nourishment before birth, and that the dam should be liberally fed is clearly apparent. In most instances she is not only expected to be a productive forer, either in the field or at the milk pail, but to provide plenty of nourishment for her young as well. Where an animal is expected to do double duty the food supplies must be liberal or else one or both of these duties will be inadequately performed with disastrous results in the case of the young. For example, if a mare is overworked, so much of the energy of the mother is used up that the foetus necessarily suffers, and so instead of growing and developing uniformly and strong and vigorous in every respect, it is permanently stunted and injured, and this will be evident throughout its whole life.—Prof. A. M. Soule.

Invention of Separators.

J. H. Monrad in New York Produce Review says Professor Farrington writes in the Farmer's Sentinel, Milwaukee, Wis., an article on the evolution of the separator as follows: 'One of the first applications of this principle to cream separation was made by Massachusetts man in about 1875. He placed graduated glass tubes filled with milk in pockets, something like those now used in the Babcock milk tester and whirled these tubes in a machine constructed for the purpose. After whirling about twenty minutes the thickest of the cream was measured in each tube. This machine was designed to be a cream tester for milk. It was, however, a pattern for the first commercial cream separator, which were constructed on the same plan, excepting that pails holding fifty to sixty pounds of milk were substituted for the glass tubes. It was first used in Germany, and looks like the fact that it was Prof. C. J. Fuchs of Germany who suggested the use of centrifugal force in testing milk as early as 1859 and that in 1864 Antonia Prandti of Munich experimented with raising cream by placing milk in glass tubes and whirling them in an ordinary centrifugal machine. It was, according to Ed. Burnette, 'about 1870 when Rev. H. F. Bond of Massachusetts made his experiments with two glass jars attached to a spindle making 200 revolutions. Let us give the honor where it is due, that is, to Germany, as the original inventor of the idea, but also for the first use of a separator (crude as it was) in a commercial creamery.'

AGRICULTURAL COLLEGE COWS.

It is with pleasure that we note the addition of twenty high-bred cows to the herd of the California Agricultural College. This will give them thirty cows in all, representing the three breeds, Holsteins, Jerseys and Guernseys. Lack of good cowmen is one of the chief deficiencies in the equipment of many of our agricultural colleges. In the past the appropriations have been so small that the funds have been barely sufficient to pay the charges of the instructors and keep up the buildings. The live stock departments have been the last to receive attention. Probably this could not be helped. But it is hoped that the day of inferior herds at the fountain head of our dairy instruction is passed. There are several other colleges that need better dairy herds than they have at present. They have some good ones before them the best types of cows and abundant opportunity to see the good and bad points of the various dairy breeds. It is not enough that all dairy breeds should have their representative in the college herds. Otherwise the student will have one-sided education in this regard, and he will go from college prejudiced in favor of one breed and against another.

HOUSING GEES.

From the Farmers' Review: There is probably no fowl or animal on the farm that is so generally neglected as the geese after they reach maturity. Give them straw or something of the kind to sit on and they appear to be comfortable even in the coldest weather. An open shed of almost any description, which will keep out the snow, is an ideal place for the breeding of geese. They should never be confined in a close building. For the young goslings a different place is needed. Mine are nearly all hatched with hens. As fast as they get out of the shell I take them in a covered basket and place them near the house. They are then fed with soft, clumsy things that they can often crush in the nest, if not removed at once. When they are all out and well dried off, I place them in an ordinary coop with the old hen. If it is early in the spring and the weather is cold, it is generally best to keep the geese in a shed until they are two or three weeks old, but later in the season, as the weather becomes milder, I discard the old hen entirely after the goslings are three or four days old. They are then kept in a dry place and shut up at night in a coop that is raised above the ordinary A-shaped coops. They shed the rain well and are easily made. Goslings should be well sheltered from rains until their backs are well feathered out. After that your troubles are practically over with them. Turn them out when they can find plenty of grass and water and a feed of meal once a day, and you can almost see them grow. My experience is confined to the Toulouse variety, and I have found them very hardy and easily raised. They are a profitable fowl for the farmer and should be more extensively raised.—Harvey H. Huggett, Columbia County, Wisconsin.

UNHEALTHY SURROUNDINGS.

At a medical convention recently held in England the cow and her surroundings came in for discussion in relation to the public health of the country. The doctors pointed out some things that should and some things that should not be. One of them said that in many of the stables the cows had too little air space per cow. This should not be less than 800 cubic feet per hoghouse divided off into pens. If you haven't enough hogs to fill your hoghouse shut off part of the space; give them just enough room to occupy and no more. After you have fed them clean the feeding trough. If you don't clean it up after you feed it, the dishes set out on the table from one morning to another. Suppose the supper was served on the same dishes. You would say to yourself that you wished you had not married that woman. I would no more feed my hogs on a feeding table that had not been cleaned up after you feed it, than I would eat my dinner off the breakfast dishes without washing. I have done it for thirty years. It is a small matter. We have a wooden box made out of 2x4 three feet in length; have an old saw for the lower edge. This is wide enough to sweep off three or four feet at a time. If your floor is smooth and if you can do it immediately after feeding you can clean it off as clean as if swept. By having the floor three feet high on one side you can clean it off month after month and the refuse will not pile up on you. No matter how wet or muddy it is, if your hogs are confined in this building their feed is always clean. Feed your hogs corn and water. I would add a few oats and perhaps a backed or two of raw potatoes once a week, but my main feed would be corn and cold water.

SELECTING A BULL.

I would not buy a bull to-day to use in a cowherd unless I knew his ancestors back three or four or even five generations. I do not simply want to know what his dam is. Succeeding generations of his dam may show improvement, but not from her own qualities alone. It comes from her sires, and that is the point where very often in the bull come from three or four generations back.—V. E. Fuller.

EFFECTS OF LOSS OF PIGS.

From Farmers' Review: On my own experience with spring pigs this year was satisfactory. From four sows—one with her first litter and two with their second litter—we raised thirty-three thirty pigs. They now average about 100 pounds each, and half of this was made from pasture, part rape that wintered. But complaint was quite general this spring of loss of pigs, even from farmers that care well for their stock. So, notwithstanding the stimulus of high prices toward increased production, it is not likely that we will not market more hogs this year than last.—P. F. Nye, Elkhart, County, Indiana.

NEW NAME FOR TEATS.

The girl who expressed so much sympathy for the poor farmer because of his cold job in harvesting his winter wheat is equal in agricultural knowledge to the one who expressed a desire to see a field of tobacco when it was just plugging out. But the damsel who asked which cow gave the most butter milk is entitled to the whole bakery. A girl on her return from the country who was asked if she ever saw any milk cow replied: 'Oh, yes, indeed I have; it just tickled me to death to see one jerk one of the faucets at the same time.'—Ada Index.

POULTRY

Sub-Earth Factors.

The farmer is not generally looked upon as a manufacturer. Yet on his lands and under them, on the roots of all leguminous plants, there are at work the microscopic creatures that labor in changing the free nitrogen of the air into soil nitrates that may be used by the plants. Every nodule on the root of a plant is an immense factory. It may be smaller than a pea, yet in it are multitudes of the little workers. They existed from the beginning of the development of leguminous life on the earth, but man has only recently discovered them. Before he understood that they were the friends of man, he regarded these factories as symptoms of plant disease, and various remedies were invented for the cure of the said disease. But later such efforts were found to be misplaced, and it was recognized that these same tubercles were part of the machinery of Mother Nature, by which she kept the soil supplied with the so-readily soluble forms of nitrogen, which alone can be taken up by the roots of plants in the woods or on the prairie. There are numerous forms of leguminosae, which help to keep up the balance required. There are the wild peas, the beggar weeds, the vetches and their relatives. On all of their roots are the little nitrogen factories crowded with workers. Man is able to assist these laborers and make up for what they lose to increase their product. This is a manufacture in which there is not danger of over production.

Cow Peas and Velvet Beans.

On light soils especially cow peas and velvet beans prove valuable as fertilizers. They have been experimented with long enough for people to be certain that their use as green manure is fully justified. Even where crops of beans and peas are taken off and the rest of the plants turned over, the supply of nitrogen added to the soil has proven of immense advantage to the succeeding crop. It is freely stated by experimenters that any kind of cow pea will furnish enough nitrogen to the soil to fully meet the demands of any following crop, that is, of the next year. In some tests recently conducted, we noticed that the increased yield of corn crop following the plowing under of cow peas and velvet beans was to be 80 per cent. When crops of velvet beans and cow peas were gathered and the hay was stored, the remainder of the plant being plowed under, the increase of corn was over 30 per cent. In wheat, the yield of wheat over 200 per cent, and of graham hay over 50 per cent. The plants that seem to utilize most the fertility from these legumes, especially on light land, are oats and wheat, probably for the reason that these two plants begin to cover the ground at once and to send down their roots to catch the nitrogen that may be leaching out of the soil. The plants that leave the land unoccupied for the longest time are the ones that profit least from the plowing under of the previous legume crop.

CRATES FOR FRUIT PACKING.

In the gathering of fruit, especially of fruits that bruise easily, like peaches, pears and plums, it is advisable to have a strongly built rigid crate. Baskets are quite generally used, and we see pictures of men carrying bushel baskets on their heads, holding them by the two handles. This is considered by the best packers detrimental to the fruit, which should be rubbed together as little as possible. There is some 'give' about all baskets, and a basket on the ground will be crushed and retain its shape entirely when lifted from the ground. The apples are pushed together opposite, the handles and are shifted more or less in the other parts of the basket. In a greater degree bags cause the bruising of fruit. A two-bushel bag is filled and is generally lifted by the middle. The fruit between the apples is pushed closely together by the two ends of the bag, and they roll back again when the bag is set down. One Michigan packing house has made a picking crate that will hold a little more than a bushel. It is rectangular and composed of slats. Care is taken to have the slats on the bottom close together, so that the fruit will not project below the slats. This crate will largely take the place of the other receptacles used in picking and delivering fruit.

THRASHING BROOM CORN.

The removing of the seeds from the brush is variously termed seeding, scraping, or thrashing. This is accomplished by bringing the heads of the broom corn in contact with a cylinder the surface of which is set with teeth or spikes. A thrasher of the kind now in general use in sections growing much broom corn costs from \$150 to \$200. Such a machine with eighteen to twenty men to keep it running steadily can clean a acre in a day. The seed heads are not drawn entirely by the cylinders as in thrashing grain, but are held firmly and evenly by means of a toothed belt which carries an even stream of brush in front of and at an angle with the cylinders, so that, beginning at the top portion, the seed is removed as the heads are carried farther and farther between the cylinders. With all the seed removed the belt deposits the brush on a table at the other end of the cylinders. The feed of the seed heads to the thrasher and the removal of the cleaned brush and storing it in the drying sheds requires a force of twelve to fifteen men (fig. 5)—Bulletin 174, Department of Agriculture.

WOOL PRICES.

F. E. Warren, president of the National Wool Growers Association, writes the Farmers' Review as follows: 'This season's wool clip in Wyoming was short from fifteen to twenty per cent, owing to last year's dry summer, and the past hard winter. Prices have been very fair, and I should say about one cent per pound higher, on an average. The future as to the price of wool looks well, because there is a shortage in sheep everywhere, not only in this country, but throughout the range season. The supply of wool have been exhausted. Wool will be wool before the next clip is on the market, if I am any judge of the situation and prospects.'

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POULTRY

Experience With Broilers.

From the Farmers' Review: To be candid, I wish to say my experience along this line is somewhat limited. However, I will give what little I know and trust it may be of benefit to some brother poultryman. In the past, space, we must have the right kind of brooding stock. Now it is not what variety we like the best, but the variety that finds the most favor in the market. We must raise what the consumer likes the best. I believe the White Plymouth Rocks or White Wyandottes make the best broilers; for the reason that their fine feathers do not show as badly as do those of their darker-colored cousins, and therefore present a nicer appearance when dressed. Now, after having nothing but good healthy birds in my flock, we begin saving eggs for hatching and the first of February, and as soon as we get enough to fill the incubator, we start it going. We have been reasonably successful with the incubator and much prefer it to the hen.

THE NEXT THING IN ORDER IS TO SEE THAT THE BROODER IS IN GOOD SHAPE.

We have an old house with stove in it, so we can fire up in severe weather. There is where we put the brooder, cover the floor of the brooder with sand, and about 12 hours before taking the chicks out of the brooder, light the lamp and heat the brooder, and make up about 85 degrees. After the chicks are two weeks old the temperature need not be over 85 degrees. We have found that it is best not to feed anything for at least 26 hours, then give a light feed of rolled oats and a little sweet skim milk.

For feeding milk we use a can with hole in the top, and an inch from the top. Fill with milk and invert it in a saucer. This makes an ideal drinking fountain. It is best, in my opinion, to feed rather sparingly the first week. Then, feed five or six times a day till they go to market. Rolled oats, wheat and cracked corn are my main feeds, always feeding corn the last thing before they go to roost.

I throw chaff from the barn floor onto the floor of the room and scatter wheat, and once in a while, a little millet seed into it. This will give the chicks exercise, which they must have to be healthy and strong. We have heard it said 'Don't let the chicks have all the water they will drink.' My experience leads me to believe that they should have water constantly before them. A little pounded rolled oats, grits and a very essential. In eight to ten weeks they should have 2 or 2½ pound broilers, and they should be marketed at once. There is good money in the business, but to run it on a large scale requires considerable capital. This we do not all have. But we can raise a few nice juicy broilers, and a few tables and maybe a few heads.—Charles E. Newbold, Logan County, Illinois.

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CRATES FOR FRUIT PACKING.

In the gathering of fruit, especially of fruits that bruise easily, like peaches, pears and plums, it is advisable to have a strongly built rigid crate. Baskets are quite generally used, and we see pictures of men carrying bushel baskets on their heads, holding them by the two handles. This is considered by the best packers detrimental to the fruit, which should be rubbed together as little as possible. There is some 'give' about all baskets, and a basket on the ground will be crushed and retain its shape entirely when lifted from the ground. The apples are pushed together opposite, the handles and are shifted more or less in the other parts of the basket. In a greater degree bags cause the bruising of fruit. A two-bushel bag is filled and is generally lifted by the middle. The fruit between the apples is pushed closely together by the two ends of the bag, and they roll back again when the bag is set down. One Michigan packing house has made a picking crate that will hold a little more than a bushel. It is rectangular and composed of slats. Care is taken to have the slats on the bottom close together, so that the fruit will not project below the slats. This crate will largely take the place of the other receptacles used in picking and delivering fruit.

THRASHING BROOM CORN.

The removing of the seeds from the brush is variously termed seeding, scraping, or thrashing. This is accomplished by bringing the heads of the broom corn in contact with a cylinder the surface of which is set with teeth or spikes. A thrasher of the kind now in general use in sections growing much broom corn costs from \$150 to \$200. Such a machine with eighteen to twenty men to keep it running steadily can clean a acre in a day. The seed heads are not drawn entirely by the cylinders as in thrashing grain, but are held firmly and evenly by means of a toothed belt which carries an even stream of brush in front of and at an angle with the cylinders, so that, beginning at the top portion, the seed is removed as the heads are carried farther and farther between the cylinders. With all the seed removed the belt deposits the brush on a table at the other end of the cylinders. The feed of the seed heads to the thrasher and the removal of the cleaned brush and storing it in the drying sheds requires a force of twelve to fifteen men (fig. 5)—Bulletin 174, Department of Agriculture.

WOOL PRICES.

F. E. Warren, president of the National Wool Growers Association, writes the Farmers' Review as follows: 'This season's wool clip in Wyoming was short from fifteen to twenty per cent, owing to last year's dry summer, and the past hard winter. Prices have been very fair, and I should say about one cent per pound higher, on an average. The future as to the price of wool looks well, because there is a shortage in sheep everywhere, not only in this country, but throughout the range season. The supply of wool have been exhausted. Wool will be wool before the next clip is on the market, if I am any judge of the situation and prospects.'

BEFORE WE BRING HAPPINESS TO OURSELVES WE MUST FIRST BE HAPPY OURSELVES, NOT WILL HAPPINESS ABIDE WITH US UNLESS WE CENTER IT ON OURSELVES.

POULTRY

Sub-Earth Factors.

The farmer is not generally looked upon as a manufacturer. Yet on his lands and under them, on the roots of all leguminous plants, there are at work the microscopic creatures that labor in changing the free nitrogen of the air into soil nitrates that may be used by the plants. Every nodule on the root of a plant is an immense factory. It may be smaller than a pea, yet in it are multitudes of the little workers. They existed from the beginning of the development of leguminous life on the earth, but man has only recently discovered them. Before he understood that they were the friends of man, he regarded these factories as symptoms of plant disease, and various remedies were invented for the cure of the said disease. But later such efforts were found to be misplaced, and it was recognized that these same tubercles were part of the machinery of Mother Nature, by which she kept the soil supplied with the so-readily soluble forms of nitrogen, which alone can be taken up by the roots of plants in the woods or on the prairie. There are numerous forms of leguminosae, which help to keep up the balance required. There are the wild peas, the beggar weeds, the vetches and their relatives. On all of their roots are the little nitrogen factories crowded with workers. Man is able to assist these laborers and make up for what they lose to increase their product. This is a manufacture in which there is not danger of over production.

Cow Peas and Velvet Beans.

On light soils especially cow peas and velvet beans prove valuable as fertilizers. They have been experimented with long enough for people to be certain that their use as green manure is fully justified. Even where crops of beans and peas are taken off and the rest of the plants turned over, the supply of nitrogen added to the soil has proven of immense advantage to the succeeding crop. It is freely stated by experimenters that any kind of cow pea will furnish enough nitrogen to the soil to fully meet the