Are you aware
That the ITEMIZER has the Largest Circulation of any Paper Published in Polk County, and is Read by Nearly Every Family within its Boundaries. If you wish to Reach Everyone, patronize these advertising columns, and
Profit by it.

POLK COUNTY ITEMIZER.

Do you know
That this Paper has the Largest Staff of Correspondents, all precincts being represented; that its locals are the newsiest and its miscellany the choicest. Is every way a reliable family paper. You should subscribe
For a year.

VOL. XIX. DALLAS, OREGON, FRIDAY, MARCH 10, 1893. NO. 9.

PROFESSIONAL CARDS.

J. M. KEENE, D. D. S.
Dental office in Breyman Brother's building, corner of Court and Commercial streets,
SALEM - - - OREGON.

L. N. WOODS, M. D.
PHYSICIAN AND SURGEON,
Dallas, Oregon.

B. H. McCALLON, M. D.,
Physician and Surgeon,
DALLAS, RO.
Office over Brown & Son's store.

GEO. J. DALY, J. E. SIBLEY, H. C. EAKIN.
DALY, SIBLEY & EAKIN,
Attorneys-at-Law.
We have the only set of abstract books in Polk county. Reliable abstracts furnished, and money to loan. No commission charged on loans. Rooms 2 and 3 Wilson's block, Dallas.

J. L. COLLINS,
Attorney and Counselor at Law,
Solicitor in Chancery.
Has been in practice of his profession in this place or about thirty years, and will attend to all business entrusted to his care. Office, corner Main and Court ts, Dallas, Polk Co, Or

N. L. BUTLER, J. H. TOWNSEND,
BUTLER & TOWNSEND,
ATTORNEYS-AT-LAW.
Office upstairs in Odd Fellows' new block.
DALLAS, - - OREGON.

PLASTERING!
—OF ALL KINDS.—
TILE - SettinG
All work guaranteed firstclass.
J. A. BARKER, Dallas.

Prompt. Progressive. Popular.
Northwest Fire and Marine
INSURANCE CO.
Head Office:
WASHINGTON STREET, PORTLAND, OR.
The Leading Home Company.
MAKE A SPECIALTY OF INSURANCE ON
Churches and Parsonages,
Dwellings and Household Goods,
Schools and other Public Buildings,
Farm Buildings and Farm Property.
—DIRECTORS:—
J. McCRACKEN, F. K. ARNOLD, D. D. OLIPHANT
H. L. PITTOCK, J. K. GILL, J. LOEWENBERG.
F. ROGERT, F. M. WARREN, J. S. COOPER.
S. E. YOUNG, E. P. McCORNACK.
J. LOWENBERG, President. H. M. GRANT, Secretary and Manager.

D. B. McDONALD,
TRUCKMAN,
Dallas: Oregon
A fair share of patronage solicited and all orders promptly filled.

A. J. MARTIN,
PAINTER,
House, sign and ornamental, graining, kalsoming and paper hanging.
DALLAS, - - OREGON

WILSON & CO.,
Druggists AND Apothecaries.
Dealers in drugs, chemicals and perfumery stationery, toilet articles, meerchaum pipes, cigars, tobacco, etc., etc. Pure liquors for medicinal purposes only. Physicians prescriptions compounded day or night. Main street, opposite court house, Dallas, Or.

FOR MEDICINES!
—GO TO THE—
McCoy Drug Store,
McCOY, OREGON.
Dr. J. E. Bartel, Proprietor.
Dealer in drugs, oils, paints, glass, paper, fancy goods, etc.
PRESCRIPTIONS CAREFULLY FILLED.

We Are Trying To Make The Itemizer The Best Paper In Polk County. Compare And Judge For Yourselves.

DYSPEPSIA
Is that misery experienced when suddenly made aware that you possess a diabolical arrangement called stomach. No two dyspeptics have the same predominant symptoms, but whatever form dyspepsia takes
The underlying cause is in the LIVER,
and one thing is certain no one will remain a dyspeptic who will
TAKE SIMMONS LIVER REGULATOR
It will correct Acidity of the Stomach, Expel foul gases, Allay Irritation, Assist Digestion and at the same time
Start the Liver working and all bodily ailments will disappear.
"For more than three years I suffered with Dyspepsia in its worst form. I tried several doctors, but they afforded no relief. At last I tried Simmons Liver Regulator, which cured me in a short time. It is a good medicine. I would not be without it."—JAMES A. ROANE, Philad'a, Pa.
See that you get the Genuine, with red Z on front of wrapper.
PREPARED ONLY BY
J. H. ZEILIN & CO., Philadelphia, Pa

GRASS and GARDEN SEEDS
Highest Germinating Power.
PUREST STRAINS.
SEND FOR CATALOGUE.
Address, Geo. Starrett, WALLA WALLA, WASH.

CARRIAGE FACTORY.
—At covered bridge, Dallas.—
O. H. COBB, PROP'R.
New work made to order and all farm implements or machinery repaired on short notice.

Palace Dry Goods and Shoe Store.
307 COMMERCIAL STREET, SALEM, OREGON.
We are now prepared to show the best selected line of staple and fancy dry goods, challies, sateens, flannels, dress trimmings, etc.
The newest styles in spring wraps.
Our ladies, misses and childrens' shoes are all reliable goods, in handturn, etc., also a complete line of genuine pebble goat, calfskin and Milwaukee oil grain.
PRICES THE LOWEST.
Agents for Standard Fashion Co's patterns. Ladies, send us your name and get the fashion sheet by mail free.
H. S. BELLE. R. H. LEABO.

SEEDS Bee and Poultry SUPPLIES
PORTLAND SEED CO., Fertilizers
Portland, Or. TREES.
SEND FOR CATALOGUE.

Wm. Brown & Co.,
—DEALERS IN—
Hop Grower's Supplies.
Quassia, whale oil soap, hop twine, sulphur, burlap.
Sole agents for Robert's improved hydraulic pump horse power sprayer.
Wool, mohair, hides, pelts, furs and hops bought at market price.
Office, 231 Commercial street, Salem, Oregon.

WHY NOT PATRONISE HOME
—Instead of sending east for things you can buy of—
Oregon grown seed.
Grown raising.
Grass seed a specialty.
Our seeds are reliable and can be depended upon.
Send us a trial order.
SEED of all kinds, garden, grass, timber.
Send for catalogue.
COMPANY. | — | O. DICKINSON SEED COMPANY, 292 Commercial street, Salem, Orge.

BREVITIES

CHATS ABOUT MEN.

How-Qua, a merchant of Canton, is the richest man in China. He is said to be worth $50,000,000.

Senator George Gray, of Delaware, closely resembles Congressman Boutelle, of Maine, in appearance.

Benjamin Poor, of Raymond, N. H., cast his first vote for Monroe in 1816, and has not missed a presidential election since. He is almost a centenarian.

Ex-Secretary W. C. Whitney always has the appearance of being extremely busy and preoccupied. He is undoubtedly a hard worker and an industrious thinker. And still he is a millionaire and more.

Dennis T. Flynn, the Republican delegate from Oklahoma territory, was fifteen years ago an office boy in Mr. Cleveland's office in Buffalo. He subsequently studied law, and finally entered upon the practice at Kiowa, Kan.

Among "chums" of his own rank the Duke of Westminster rejoices in the nickname of "Jack Sheppard," which was bestowed upon him in his school days at Eton in consequence of his extraordinary resemblance to the famous boy burglar delineated by Cruikshank.

John P. Mason, of Lynchburg, Va., a very strong man, saw a bull attacking a colored woman in a field recently. He ran to the woman's assistance, and the bull, leaving the woman, turned upon him. Mason grabbed the bull by the horns, threw him to the ground and broke the brute's neck.

Ten years ago Henry S. Ives was a clerk at $1,000 a year. Four years ago he was a guest of the warden of Ludlow jail. Today he can afford to pay $15,000 a year rent for the house in which he has installed his bride. Some Wall street financiers are inclined to think that before he is forty Ives is going to be one of the great capitalists.

RAILROAD JOTTINGS.

It is reported that the Minneapolis and St. Louis railroad is soon to go out of the hands of Receiver Truesdale and to be at once reorganized.

The Savannah, Americus and Montgomery railroad has been placed in the hands of a receiver and President S. H. Hawkins has been appointed to that position.

D. J. Mackey still has the presidency of roads covering 710 miles of main line—the Louisville, Evansville and St. Louis, the Peoria, Decatur and Evansville and the Chicago and Ohio River.

The Great Northern railway recently completed a branch from St. Helaire to Red Lake Falls, and has begun train service in connection with the St. Helaire and Thief River Falls trains from Crookston.

The Pennsylvania has nearly completed its improvements in Baltimore. It has built iron bridges over the grade crossings of ten streets and enters Baltimore on an elevated terminal two miles long.

There are now 329 divisions of the Order of Railway Conductors. In Indiana there are fifteen divisions, in Illinois twenty-six and in Ohio twenty. Pennsylvania leads all states, having thirty-two divisions. The membership now exceeds 20,000.

FASHION'S FANCIES.

Whipcord is the favorite material whereof the tailor made gowns of many young women are composed.

Some of the new Russian velours show as many as three or four different colors. Thus, black, dahlia, golden brown and green will be combined in one cloth.

The return of the crinoline some time in the near future seems to be one of the accepted facts. Already fashionable dressmakers are stiffening their dresses as far as the knees.

The fashionable minktail trimming that was so popular at the beginning of the season is already practically out of the market, the supply of this little animal's tails being entirely exhausted.

Sealskin seems to be in greater favor than ever, and it apparently becomes more and more beautiful as the time goes on, probably because the manipulation of the skins unceasingly grows toward perfection.

For a middle aged lady nothing can be more fitting, and elegant at the same time, than a ruby velvet gown covered with black silk guipure lace, richly draped. A wide sash and stomacher of ruby velvet are worn over the corsage, which is of lace, finely gathered.—New York Tribune.

RECENT INVENTIONS.

A machine that sticks stamps with a deftness that is extraordinary.

A machine that points meat skewers as fast as you can feed the wood to it.

A spatula composed of a blade of rubber having a broad tin steel core and handle.

A bung like a truncated cone, that is adapted to screw into a bunghole that is made tapering.

A combined lead pencil and mucilage holder, the mucilage being in one end and the lead in the other.

A dinner bucket in which the central channel with an alcoholic lamp heats the surrounding compartments.

A horse's nose bag in which a rubber diaphragm tightly fitting about the animal's head prevents the waste of the oats.

A tip for crutches or canes, which can be regulated so as to be extended from the end of the cane or crutch when desired.

A safety device for window cleaners, consisting of a strap fastened to each side of the window frame and also to a hook in the belt of the cleaner.

LIVE STOCK

MAMMOTH BRONZE TURKEY.

Magnificent Specimen of the Real National American Bird.

The "Bronze King" is what its prond owner has named the turkey cock in the illustration. Here is the boss Christmas turkey. This fine strutting fellow is a product of Michigan. The owner writes of the Mammoth Bronze as follows in The Poultry World:

None, we dare say, equals the pure bred Mammoth Bronze turkeys in purity and richness of plumage and for market purposes. Their beautiful appearance when dressed will always draw attention. They are not only hardier and

BRONZE KING.

easier raised than the common or mixed kinds, but are more productive of eggs, better sitters and seem to understand taking care of and protecting their young better than the common turkey.

The Mammoth Bronze are the original descendants of the wild native turkeys of our American forests, and resemble them in shape, color and markings. For those who raise turkeys for market or exhibition purposes the pure bred Mammoth Bronze would be far the most valuable kind to get, as nothing can equal them in size and stately and handsome appearance.

Watch the Stables.

How important it is to make a tour of the stables at, say, 8 o'clock each night. And yet how few farmers, comparatively speaking, make this a habit. Many and many a time the owner of stock will on his late round notice some premonitory symptom of disease that has escaped the attention of the hired hand earlier in the evening at feeding or milking time. Many a case of possibly fatal trouble may be caught in time by seeing the condition of the animals before retiring. Cases of colic very commonly come on after the evening meal, and if attended to at once will generally respond satisfactorily to the medicines usual in such cases. Where the animals are not looked after late in the evening it is quite possible that sickness, which at that time could be treated successfully, may have proved fatal by morning. Horses wintering in stalls and loose boxes sometimes are unfortunate enough to cast themselves after a full meal. If not helped up when it is impossible for them to rise without assistance, they may be dead in the morning. About this time of year early foals, calves, lambs and pigs are commencing to arrive, and it is therefore of the greatest importance that all pregnant animals should be inspected before retiring for the night. We need not go into detail in this matter. It will be only necessary to suggest the subject, as common sense will lead our readers to accept this "jog" to their memories in good part. Just one more point. We could quote cases where horses in stalls have been found strangled in the morning from getting foul in the hitching strap, rope or chain, while others have lamed themselves for life by getting their feet caught in the same way and cutting their tendons in their struggles during the night.—Nor'west Farmer.

Hogs in Winter.

It is no damage to the manure to have the hogs rooting it over if it is not drawn out upon the fiel is about as fast as made. Neither is it any injury to the breeding stock to have them do so. They will be more vigorous and have stronger pigs if they have exercise, and it is well to encourage them to work by scattering a little corn among the manure before it goes into the barn cellar. But while they can work in the manure heap nearly all day they should not sleep in it. The heating pile beneath them is probably warm, and they choose it for that and not for the sake of the filth, but such a heat upon one side while the other is cold cannot be wholesome. Provide a warm pen with an abundance of bedding in it for them to lie down upon when tired of working, and they will soon show that they seek the bed for comfort. If they do not, driving them in a few times will convince them that their own nest is the place for them. Raw roots are quite as good as cooked roots for them, as the cooked roots are too watery. If cooked, all the water should be drained off and then bran or oatmeal mixed with the warm roots when mashed up. Keep them in good growing condition, but do not get them too fat.—American Cultivator.

To Avoid Loss in Lambs.

The liberty to take exercise, and if necessary to be forced to take exercise, is a part in sheep raising that cannot be too highly appreciated. Ewes with lamb should be firm and full of muscle, not fat and soft, and this has been proved in every flock throughout the country year after year by the lambs that come early in nearly every case being strong and those that come very late being the same, while the great loss in lambs is nearly always just before the ewes go to pasture or from ewes that have during their whole period of pregnation been confined to the pens. To avoid losses from these causes give the ewes as much room as possible in the pens. Do not have the pens too close, but have them dry above and below.—Robert Miller.

BRANDY IN THE MINCE PIE.

How One Man Struggled to Overcome His Appetite—An Impressive Incident.

At one time it was my privilege to entertain a temperance speaker of considerable fame, but physically he was a sad wreck from strong drink. I considered myself a temperance woman, disliking spirituous drafts of all kinds. I "tasted not," but I did "handle" when it came to mince pies. I prided myself on those pies and thought it needed "just a little" to give them the desired flavor; but being a "temperance (?) woman" I used so very little I did not dream that it could be detected. So when dinner time came, with no small degree of pride, I served mince pie.

But great was my surprise to see my guest, the speaker, push back the plate containing it and abruptly leave the table and the house. He was gone two or three hours. When he returned it was evident that he had been going through a struggle. He looked so wan and pale, poor man! that as I observed his face I readily forgave his seeming rudeness. Reaching out his hand, he said very humbly: "Can you pardon my abrupt leave taking? But," he added, "my conduct calls for an explanation, though I shrink from telling any one how weak I am."

Then walking across the room as if to nerve himself for an unpleasant duty, he turned and with tears in his eyes said: "Madam, I pray God that none of your loved ones may ever know what it is to struggle as I have done since I left this house. Some boast that the love of strong drink is taken from them, but you will realize to some extent my weakness when I tell you that the faint odor of it I detected in your pie nearly overcame me.

"I rushed out into the air and walked like a wild man away from saloons and what my appetite craved, and getting off alone I prayed, as only such a helpless one knows how to pray, that God would save me from myself. He alone is my strength, and yet I fear I never can in safety sit at his table where fermented wine is used. You may say a little brandy or wine will tempt none of my loved ones, but some chance guest, weak like myself, may be sent to perdition by your thoughtlessness."

This little incident made such an impression upon me that I never shall forget it while life and reason last. Fifteen years have passed since then, and not a drop of anything that can intoxicate has gone into my cooking. I will admit that I have more than once been tempted to give to it the old time flavor, but each temptation has been met by "For God's sake, don't!" seemingly uttered by that pleading face that I gazed into so remorsefully long ago.—Helena Thomas in Union Signal.

England's Terrible and Awful Curse.

Taking but one single element last year in England alone, 1,136 persons were recorded in the public register as having died by the most shameful and agonizing of diseases—delirium tremens. This is but one comparatively uncommon form of the curse which has thousands of ramifications, and which blighted every region of the world. To think of the sights so common in this Christian land is enough, if they have any consciences at all, to make them weep, as it must make angels weep, and might also make devils blush for their handiwork in defacing the image of God.

Who is it debases splendid human materials into mere funnels for drink? Who makes the corpses of manhood—these twice dead with something worse than death; these who, singed and scorched in every faculty, tumble farther into the flames of temptation which they suffer to be kindled on every side? Who injures the weak? Who fosters the appetite? Who multiplies the temptations to which, with the hereditary taint in their veins, they are all too certain to succumb? Who increases the multiplicity of flames about which poor human moths flutter for long hours and scorch themselves to death? If it be true that "the sight of means to do ill deeds makes ill deeds done," then can those who have never taken any part whatever in mitigating the terrible and awful curse of England repudiate all responsibility for this state of things?

Day by day the innocents are growing up to fill the miserable ranks of the army of drunkards, as by hundreds and thousands death mows them down. If the pagan form of evil was the hurricane, this is the pestilence, and better far the hurricane, with its thunders and lightnings, and its tempests, its partial and temporary devastations, awful though they are, than the noisome pestilence whose path is never crossed, whose silence is never disturbed, whose progress is never arrested, which walks silently through the breadth and length of the land, breathing poison in every heart and carrying havoc into every home, and day by day and year by year, with intolerant and interminable malignity, sends its thousands and tens of thousands of helpless victims into the ever yawning and never satisfied grave.

They are pouring away the very blood of their lives and flinging away the eternal jewels of their souls into the till of the publican. And everywhere the minimum of resistance is confronted with the maximum of temptation. The most wretched are left to sting themselves to death in the circle of gin shops, with which, as with a ring of fire, they encircle the very lowest of their slums. —Canon Farrar.

Why Times Are Hard.

Miss Hannah More wrote two verses which every man should read and mark and learn:

We say the times are grievous hard,
And hard they are, 'tis true;
But, drinkers, to your wives and babes
They're harder made by you.

The drunkard's tax is self imposed,
Like every other sin;
The taxes altogether cost
Not half so much as gin.

Their Systems Are Weak.

M. Pasteur states that when bitten by a mad dog a man who habitually uses intoxicating spirits is more difficult to cure than a temperate man. Yes, and when bitten by any other disease.

A Notable Wedding.

EMMA NORTH LOCKETT.

Colonel J. T. North, known to reading Americans as the "nitrate king," lives in great style at Avery Hill, Eltham, England, and the marriage recently of his daughter Emma was the occasion for a great display. The bride and her nine bridesmaids dazzled the eyes of all in the crowded church. The bride's gown was of white duchess satin, the front covered with fine point de gaze lace and the long train edged with the same. Her tulle veil covered a tiara of real orange blossoms, which was fastened with a diamond crescent and a diamond bar. She also wore a pearl necklace, with diamond and pearl pendant, diamond buckle and diamond earrings. The groom is Mr. George Alexander Lockett, of Liverpool.

A Canadian Newspaper Building.

THE TORONTO TIMES BUILDING.

The Times, of Toronto, has prospered sufficiently to own a new building which may be thought fit to rank among newspaper palaces. It is located on 29, 31 and 33 Melinda street and is a remarkably handsome and commodious structure for the business.

Two Foreign Ministers.

WILLIAM POTTER. DAVID P. THOMPSON.

President Harrison has appointed Mr. William Potter, of Philadelphia, as minister to Italy and Mr. David P. Thompson, of Portland, Or., as minister to Turkey. Mr. Potter was born in Philadelphia in 1852 of an old Revolutionary family, and possesses the various requisites of wealth, culture and ardent Republican politics. Mr. Thompson was born in Cadiz, O., about 1832 and went to Oregon as surveyor in 1853. He acquired wealth and took a prominent part in the state's politics, having been governor of Idaho, mayor of Portland and state senator.

A Pioneer Woman Suffrage Advocate.

Lucy Stone, the pioneer advocate of woman suffrage and its attendant reforms, is still living at Dorchester, Mass., in firm health and excellent preservation at the age of seventy-four. She is, as she always has been, a gentle mannered and soft spoken lady—the exact opposite of that distortion which was formerly put on the stage to represent the "strong minded woman."

LUCY STONE.

In 1855 she married Henry B. Blackwell by a contract which authorized her to retain her maiden name, and he is still with her. Their married life has been an unusually happy one.

A Descendant of Miles Standish.

Professor J. V. Standish, recently made president of Lombard university at Galesburg, Ills., is a descendant of the famous Miles Standish and has kept up the family record for energy and education. He was born in Woodstock, Vt., Feb. 25, 1825, was graduated from Norwich university in 1847, and in 1854 was made professor of mathematics and astronomy in Lombard university—a position he held till June, 1891. After a year of rest and travel he was chosen for president of the institution.

J. V. STANDISH.

THE CORNSTALK DISEASE

Detection and Prevention of This Serious Ailment.

Dr. Frank S. Billings reports as follows:

In endeavoring to portray the symptoms of this disease we come face to face with a question of exceeding difficulty, because of their very close resemblance to other diseases which occur in cattle in our western states, and even anthrax itself offers intra-vital phenomena which more or less closely resemble those presented by this disease, especially in the most acute form. This fact has led many veterinarians into most serious errors in diagnosis. The occurrence of this disease in the months from November to March must be of essential differential diagnostic value.

Like the swine plague, this disease may be fatal in twenty-four hours, or it may extend to eight or ten days or some weeks before such a result occurs. It is not a universally fatal disease, as we now know better than ever before.

Primarily we have to do with an acute blood poisoning disease, which, like all such diseases, is accompanied by a more or less excessive exacerbation of the bodily temperature, varying, so far as known, from 39 degs. C. to 42 degs. C.—that is, from 102.2 degs. F. to 107.6 degs. F.

These disturbances of the circulation frequently extend to the brain, where engorgement and cerebral pressure occur, which in some animals takes on the form of "craziness," as the owners call it. The animals then bellow fearfully and chase other animals, especially dogs, hogs or fowls, but seldom human beings. This has led to the mistake of their being called "mad" at times, and to this disease being mixed up with so called "hydrophobia" in cattle by some veterinarians. Other animals stand by themselves or are depressed and loath to move. Separation from their companions is one of the first indications of illness. As nearly as I can discern they can all swallow and all drink. As in swine plague and southern cattle plague, constipation is a very frequent occurrence, while laxity of the bowels also often occurs and may be looked upon as rather a favorable complication. Red urine does not occur. The visible mucosæ are injected and often have a yellowish red tinge. My inoculated steer drank all the time, and even ate a little during its most ill days. That such sick animals should be disinclined to eat and often to drink is no wonder; but if clear water is placed before them no difficulty in swallowing will be discovered. Milk cows soon slacken in their yield of the lacteal fluid, and frequently the secretion ceases altogether for a time.

It must be borne in mind that if the manure and litter from a cattle yard where animals have had this disease are taken out and strewn over a field and then plowed in, and that field is planted with corn, such corn is very liable to become invaded by this germ, and thus can be the cause of more losses in cattle if turned into such "a stalk field" the ensuing fall and winter.

On the eruption of this disease in a herd of cattle which have been used to do the lazy man's gleaning in a stalk field the first step to be taken is the peremptory withdrawal of the herd from such a field and such fodder. The next thing to do is either to number, brand or adopt some other means by which a record can be kept of each animal in the lot, and then take the temperature of each one night and morning. All with a temperature of over 102 degs. F. must be looked upon as suspicious. Those in which it does not exceed or rise over 102 degs. F. need not cause any worry. There is no need of separating the sick from the well, as the disease is not contagious.

A saline purgative is indicated for all the animals. Those that die should be cremated, and with them a lot of the litter in the yard. If possible to avoid it, the regular cattle yard should never be used for such cattle after any of them have become ill. Again I repeat in no case should a particle of the manure or refuse from a place where such cattle have been confined ever be used for fertilizing purposes. Burn it up.

The illustrations of the disease in corn and descriptions of the same have put us in possession of that practical knowledge by which we should be able to invariably tell when the growing corn in our fields is infested with this germ so dangerous to our live stock. The question of prevention should be the simple matter of avoiding such corn fields as places for turning in stock to do the post harvest gleaning. From conversation with several farmers I am quite convinced that even now some of them have quite distinct ideas of the manner in which the corn itself is affected, and that as we have obtained an exact description of this part of the story from the botanical side we should now be able to totally prevent this disease in our live stock so far as the gleaning of our corn fields is concerned. But this still leaves us to face several uncertainties, which can only be settled by careful observation by farmers and exact investigation by competent investigators.

Knowing that the corn fodder is diseased, both as to the husks and leaves, the question is, Does the germ also penetrate the cob and growing kernel, and can they also cause the disease?

Are grasses also infested by this germ? And if so, which? This last is a very important question, for if they cannot be, then such fields can be used for raising grasses. This can be best determined by actual experiment by intelligent farmers, who should turn such fields into grasses, including patches of millet and clover and then feed a few cattle with each kind without the admixture of any other herbaceous food.

It would be well if the experiment stations would make suitable arrangements in this direction with intelligent farmers and bear the expense of using such an infected corn field for experimentation in about the following manner:

It should be thoroughly cleansed of all refuse of the old corn crop, but not exposed to the action of fire.

A portion should be planted in corn, and if any stalks appear diseased during the growing period they should be fed experimentally and under every precaution against accident from other causes to cattle and also rabbits. The latter might be tried first, as enough is now known of the germ of this disease to enable any competent person to recognize it correctly. When the corn is ripe the ears should be gathered carefully and all full ears separated from those incomplete in development. Feeding experiments should be made with both. After the crop of corn has been gathered a few cattle should be turned into it in order to avoid any error. Naturally each section of the field should be separated from the other, and if, as Professor Burrill's letter suggested, such a field as one of "forty acres" can be pretty generally infested, such a one should be used for this kind of experimentation.

Various grasses, including millet, clover and in fact all kinds used for feeding stock, should be planted in lots in such a field. One lot of each kind should be used for pasturage in the summer for a few cattle, while the crop of another lot should be preserved for winter use and then fed to a certain number of cattle.

It is too much to ask any farmer to do all this at his own expense, but the interests at stake make it the imperative duty of the agricultural experiment stations to do it, this being one of the purposes for which they were created, though Nebraska is the only state that has done its duty thus far in this regard. There are an abundance of public spirited and intelligent farmers who will gladly support the work. In fact Mr. McKelvey has written me that he intends to follow out my suggestions as to grasses and millet with the field he spoke of in his very detailed letter stating his experiences with the disease. Later advices from Mr. McKelvey go to show that there is no danger in such grasses raised on such land.

Wherever such a disease has occurred every stalk and leaf on such a field should be destroyed by fire, and until we know to the contrary the field should be seeded down to hay. There is no question but that the infected remnants of the corn fodder can upon their decay cause the further infection of the field by the germs thus becoming free and again developing in the soil.

The absolute necessity of tile or ditch draining the lower portions of corn fields has been so emphatically indicated by every practical observation that it would seem unnecessary to call further attention to it as a most essential factor in rendering our corn crop almost free from the dangers of this disease, and thus save the cattle also.