Lands Now Utilized for Pasturage if Planted to Wheat at Present Average Would Produce More Than Double Crop.

Irrigation has done much for the development of the far west and will do much more, but irrigated lands, whether reclaimed by private enterprise or by the government, whether yielding a profit to the investor or sold by the government at the bare cost of reclamation, are expensive, although well worth the expenditure of any reasonable price. Furthermore the area that can be reclaimed by irrigation in the west is limited as compared with the mighty expense of this vast territory. When we shall have well irrigated 50,-000,000 acres we shall have performed the most prodigious task ever accomplished by man in agricultural develment, writes F. W. Mondell in Field and Farm.

On the other hand the lands in private ownership and on the public domain between the ninety-eighth meridian and the coast range now utilized only for pasturage purposes-which will ultimately yield profitable crops by proper methods of cultivation-far keeeds the area that can eventually

in irrigated, and he is a bold man indeed who would limit the area of successful dry farming yet to be undertaken to 100,000,000 acres. Planted to wheat at the present average yield throughout the country these lands would produce more than double our present annual wheat crops.

Some say that this increase in our supply of breadstuffs, in wheat and trye-for rye will yield well with less moisture than any other cerenl-must be at the expense of our beef and mutton supply, a considerable part of which now comes from the lands being and to be occupied by dry farmters. Those who argue thus have taken but a superficial view of the situcation. When the dry farmer has cultivated all the lands in the intermountain west that will successfully grow crops without irrigation there will still remain millions of acres of grazing lands and for each acre that the dry farmer takes from the open range he will produce in cheap forage, in addition to his grain, much more in feeding value than the sparse grasses this land formerly produced.

Our methods will gradually change, The large herds and flocks will be more or less divided, depending upon local conditions. Winter grazing with its losses and dangers will be abandoned for winter feeding and the agsion, lest I be put down as an unreaadd a word of caution. Because a wide set of furrows. range of crops can be profitably grown on the right kind of soil, with proper tiliage, with a limited amount of moisture delivered in the usual way, it with no moisture to speak of. It cannot be done successfully. Furthermore there are some regions in the southwest where the prevalence of hot winds render farming uncertain and precarious except with liberal supplies of moisture.

Danger of Irrigation.

When man interferes with nature he often finds that he has upset the balance and brought new troubles into his life, says the Pathfinder, Irrigation, unless done with great intelligence, will ruin land, by bringing up salts from down deep in the soil and making the land alkaline. Now a new danger on the same score has turned up in Egypt. The huge dams on the Nile and other splendld irrigation works constructed by the government there, under British authority, are having an effect no one dreamed of: namely, the "water table," or normal level of water in the sofl, has been raised so much that many lands which were formerly dry are now watersoaked or flooded. The result is that the water, coming up through the soil, brings with it injurious salts, thus destroying its fertility. Already great tracts of the best cotton land in Egypt, on which they raise the cotton that brings 30 or 40 cents a pound, have been injured in this way, and the production of Egyptian cotton, which is the best in the world, is bound to show a decrease.

Winter Work in Orchard.

Damage to the growing wood and at fruiting season may often be prevented by care in the fall. Nearly all not only continues good but is increasplant diseases and many insect pests lug. winter over in forms that are easily destroyed when in the dormant state. Cutting out and burning diseased wood and breaking up the breeding places of insects will often save the succeeding season's crop. In black rot of grapes the spores are carried over on the dried and shriveled grapes that adhere to the vines. These should on no account be altowed to remain on till spring but should be removed and burned. It will often be found necessary to burn over diseased strawberry plantations to the fall. Anthracnose in raspberry ranes should be watched for and destroyed.

Protect Rhubarb Planta.

Protect rhubarb by a mulch of manure or compost three or four inches thick. This is not absolutely necesit enables the plants to get an earlier profitable work on the farm. Never start in the spring.

Serviceable Tube May Be Made From Pine Lath to Divert Water Supply.

In recent years short tubes or sprouts have been used in many of the head ditches of orchards to divert small quantities of water to fur: rows. These tubes are usually made of wood, but pipes made or slay, black iron, galvanized iron and tin are occasionally used. For nurseries and young trees especially and also for mature trees a cheap and serviceable tube may be made from pine lath, such as are used for plastering. The four-foot lengths cut into two equal parts and four of these pieces are nailed together to form a tube.

One of these tubes when placed with its center two inches below the surface of the water in the head ditch discharges nearly three-quarters of a miner's inch of water and if placed four inches below the surface will discharge more than one miner's inch. writes Samuel Fortier in Desert Farmer. In some places the lumber mills manufacture a special lath for this purpose. It is made one-half inch thick, two inches wide and 36 inches long. If such tubes when thoroughly dry are dipped in hot asphalt they will last a much longer time. In some of the deciduous orchards of California a still larger wooden tube or box is used. It is made of three or four pieces of three-fourths by three and three-fourths inch redwood boards of the desired length. The flow through this tube is regulated by a cheap gate, consisting of a piece of galvanized iron fastened by means of a leather washer and a wire natl.

An orchardist can often purchase at a low figure pieces of wornout and discarded piping varying from threefourths to two inches in diameter. Such pipes when cut into suitable lengths make a good substitute for wooden spouts. Tin tubes one-half inch in diameter and of the proper length have been used with good success. In compact soils through which water passes very slowly the furrows must be near together and under such conditions small tin tubes are to be preferred. In making use of tubes of various kinds to distribute water to furrows it is necessary to maintain a constant head in the supply ditch. This is done by inserting checks at regular distances.

These distances vary with the grade of the ditch but 150 feet is not far from being an average spacing. In temporary ditches the canvas dam is perhaps the best check, but in permanent ditches it pays to use wood or concrete. In the latter the opening is controlled by a flashboard which; gregate of beef and mutton will not be may be adjusted so as to hold the wadiminished but increased. In conclu- ter at any desired height and at the same time permit the surplus to flow soning optimist and dreamer let me over the top to feed the next lower

Why We Plow.

Plowing loosens up the soil, exposing more of it to be acted on by the does not follow that all classes of sum and air. Stubble and weed seed crops can be grown on any sort of soil are buried, and so changed to humus. The water holding capacity of the soil is increased, and rainfall can get into plowed ground easier and faster. On deep plowing a heavier rainfall can get in without running off better than on shallow plowing. Do not take a wider, furrow than the plow will cut. Thorough plowing pays. .It is also a good, practice to disk right after harvest; this puts the ground in better shape for plowing.

Royal Paradox Wainut.

A hybrid of cross between the California black walnut and the Perslan (English) walnut. Originated by Luther Burbank of Santa Rosa, Cal., who says it is the fastest growing tree in the world for a temperate climate. He says: "I have a tree 12 years old, on a hard, dry roadside, that is 60' high, 75 feet through the branches and 21/2 feet in circumference."

DAIRY NOTES.

Care and feed are as essential as, breed and strain. A good supply of alfalfa will cut

down the bran bills. The dairy harvest never ends with

the cows of the right sort. The cow is and has always been the

farmer's standby in hard times. The fall fresh cow will be the money maker if the right care is given.

No farm animal is so easily sold

at a good figure as a good milk cow. Farm dairying certainly pays, even when conducted by ordinary methods. The demand for good milking cows

The man who buys a milk tester and puts it into use is inviting himself to a surprise party. Timothy hay is better than nothing

as a feed for dairy cows, but it is worth more to sell on the market. The economical butter cow-the butter cow that produces most largely-

is seldom the smallest eater. The cow that is a non-producer is always out of place on the farm, but

especially this year, with prices of feeds ranging as they are: The dairy interests of the country are waging a fight against the fraud-

ulent sale of oleo, and the dairymen should fight to the last ditch. Many a dairyman is making a mistake by not raising his best calves. In this connection a condensary often

seems to be a questionable benefit. Eurrying through the milking pever pays at any season. Milking and caring sary in the sheltered situations, but for the cows is the most important and slight It.

Mistiege is Dangerous.

Few people who know mistletoe only as a desirable feature of Christmas decorations understand that the plant is a parasite dangerous to the life of trees in the regions in which it grows. It is only a question of time, after mistletoe once begins to grow upon a tree before the tree itself will be killed. The parasite saps the life of the infected branches. Fortunately, it is of slow growth, taking years to develop to large proportions, but when neglected, it invariably ruins all trees it reaches.

English Women Smoke Pipes. The latest fancy of the womansmoker is a pipe—not the tiny affair that suffices for the Japanese, but a good-sized brier or a neat meerschaum. The pipe is boldly carried along with a gold card case and chainpurse. For some time now the cigarette has given place to a cigar, small in size and mild in quality. Women said they were tired of the cigarette, and wanted a bigger smoke. -London Mail.

Cripple Rides Blaycle. George Anstey, aged 12, a cripple, of Leicester, England, is one of the most remarkable cyclists in the country. Both his legs are withered and useless, but the Leicester Cripples' Gulld has provided him with a twowheeled pedalless machine, with a padded tube covering the axle bar. Across this he lies face foremost, and with wooden clogs strapped to his hands he propels himself along the streets and roads in a marvelously rapid manner. He has complete conas pedals, steering gear, and brake combined.

Pretty Good Definition. We hear some funny things in Fleet street sometimes, and the following definition of the height of aggravation, by a gentleman in rather shaky boots, whom we encountered in a well-known hostelry the other day, struck us as being particularly choice.

"The 'eight of haggravation, gentlemen," said this pothouse humorist, setting his pewter on the counter and looking round proudly, with the air of one about to let off a good thing, "the 'eight of haggravation-why, trying to ketch a flea out o' yer ear with a pair of boxin' gloves."-London Tit-

An Alaskan Luncheon.

Runners of woven Indian basketry, with white drawnwork dollies at each of the 12 covers, were used on an oval mahogany table. The dollies were made at Sitka. In the middle of the table a mirror held a tall central vase of frosted glass, surrounded by four smaller vases, all filled with white spring blossoms. The edge of the mirror was banked with the same flowers. Four totem poles were placed on doilies in the angles made by the runners.

Place cards were water colors of held bonbons. The soup spoons were | told how a locomotive is made. of horn, several of the dishes used the cakes were served on baskets.

The menu was as follows: Poisson Yukon climbers (broiled salmon, potatoes Julienne), snowbirds avec auroraborealis (roast duck with jelly), Shungnak river turnips, Tanana beets, Skagway hash (salad), Fairbanks nuggets (ripe strawberries arranged on individual dishes around a central mound of powdered sugar), arctic slices (brick ice cream), Circle City delights (small cakes), Klondike on crackers), Nome firewater (coffee). -Woman's Home Companion.

Acknowledgment. "You will admit that you owe a

great deal to your wife?" "I should say so," replied Mr. Cumrox. "I wouldn't be invited to any of her receptions or musicales if I wasn't married to her."

Disqualified. Her-My brother won first prize in that amateur guessing contest, but

they ruled him out as a professional. Him-A professional? Her-Yes. He's employed in the government bureau, you know.

Lightning Change.

The Manager-Can you make quick changes and double in a few parts? The Actor-Can 1? Say, you know the scene in "Love and Lobsters," where the hero and the villain are fighting, and a friend rushes in and separates 'em? Well, I played all three parts one night when the other two fellows were ill.

Not Altogether Dead.

Mr. Robert Butler of Marlborough, England, has had the peculiar experience of hearing his death announc ed. He was attending the poor law conference at Exeter when one of the delegates moved that, in consequence of the death of Mr. Butler, which they all regretted, another gentleman, whom he named, should be appointed to fill his place as one of the representatives of Wiltshire on the central committee. Mr. Butler rose from his place on the platform and announced to the conference, amid much amusement that, so far as he was aware, he was still alive trol of the machine, his hands acting and in good health, and would be pleased to continue in the office if the conference desired.

Bankers and Bank Notes.

Four men, three of whom were connected with brokerage concerns in the Wall street district, were discussing United States paper currency and the disappearance of counterfeits. "We are so sure nowadays," said one of the party, "as to the genuineness of bills that little attention is paid to them in handling, except as to denomination." To prove his assertion he took a \$10 yellowback from his pocket, and, holding it up, asked who could tell whose portrait it bore. No one knew, and by way of coaching the broker said it was the first treasurer of the United States. Again no one knew the name. "Why, It's Michael Hillegas," said the man proudly. "But in confidence, I'll tell you, I didn't know it five minutes ago."-New York Tribune.

Vivid at Least. Dr. Hiram C. Cortlandt, the wellknown theologian of Des Moines, said in a recent address:

"Thomas A. Edison tells us that he thinks the soul is not immortal; but, after all, what does this great wizard know about souls? His forte is electricity and macainery, and when he talks of souls he reminds me irresist-Alaskan scenery. Abalone shells held by on the young lady who visited the safew evenings ago when she decided salted nuts, and tiny Indian baskets Baldyth locomotive works and then she would like to see her fiance. As

"'You pour,' she said, 'a lot of sand a la Bering Sea (halibut chowder), into a hole in the sand, and everybody sounding a call. yells and swears. Then you pour it then you put it in a thing that bores holes in it. Then you screw it toit, and it goes splendidly; and they a bluep rint of it. But one thing I forgot-they have to make a boller. One man gets inside and one gets outside, ought to see it go!""

It was an absent-minded traveler

who had lately taken to ballooning. "Yes," he observed impressively, "It was a fearful journey. The machine, a thousand feet up, and no more ballast, headed straight for Siberia, and the rarefied air-well, you know as well as I do what effect that has on a balloon... Yes, the peril was terrible." Then the old habit was too strong for him. "The wolves detected our presence. A desperate race ensued. We felt their hot breath on the nape of our necks."-London Globe.

Largest of Whales.

The largest whale of its type of which there is scientific record was captured recently off Port Arthur, Tex. He measured sixty-three feet in length, and was estimated to be about three hundred years old. Captain Cob Plummer, mate of a United States pilot boat, sighted the monster in the shoals off the jettles, and the crew of his vessel captured the mammal. The huge body was towed ashore, exhibited and much photographed before being cut up.

Rat Bounty Excites Merriment. Seattle, fearing the introduction of bubonic plague by rats, has offered a bounty of ten cents a rat. This moves Tacoma, safe from infection from the sea, to raucous laughter, and the Ledger says that the bounty, "though not intended for rodents of Tacoma, Everett, Bellingham and other populous and busy centers, has been finding its way into the pockets of nonresidents of Seattle for non-resident rats. But the joke would be on us if it were found that our rat population had found its way into the Seattle census."

Two Very Old Ladles. We have heard a great deal lately about long-lived people, but it is probable that the oldest two people in the world today are Frau Dutkievitz and another old lady named Babavaslika. The former lives at Posem, in Prus-

sian Poland, and was born on February 21, 1785. She is therefore one hundred and twenty-five years old. The latter, however, is nine months her senior, having been born in May, 1784.

She is still a fairly bale old woman, and for nearly one hundred years worked in the fields. Her descendants number close on 100, and these now make her a joint allowance. She lives at the village of Bavelsko, whose neighborhood she has never quitted during the whole of her long life. She remembers events which happened at the beginning of last century much more clearly than those of the last 40 years.-Dundee Advertiser.

Too Ardent a Lover, Georgotto Fontano, an embroiderer who lives in the Rue Sevres in Paris, has found herself condemned to a to her a harmless act.

She was going home from a concert stove lids and things into a furnace, to summon him to her side by break-

She did so anr in a few moments out and let it cool and pound it, and fire engines came from several directions, all laden with firemen, of course, but alas! her flance was not among gether, and paint it, and put steam in them, and more than that all the firemen were angry, and before she knew take it to a drafting room and make what had happened she was taken to gan to laugh, and the prisoner, realiza magistrate, who proceeded to make the course of true love run unsmoothly by sending her to prison for a month nuggets (yellow cheese in round balls | and they pound frightfully; and then | in spite of her tears and protests that they tie it to the other thing, and you she thought it would be a simple way of bringing her fiance to her side.

The Bright Side. Nebuchadnezzar was lurching in bia

accustomed style. "All fiesh being grass," he reflected,

"this must be Beef a la Mowed." And chuckling hoarsely, he took another chaw.-Puck.

Kindly Intentions.

"A man who enjoys seeing a woman in tears is a brute." "I don't know about that," replied

Miss Cayenne. "One of the kindest

husbands I know takes his wife to see

all the emotional plays." Takes Himself Seriously.

Nicola Tesla, dining by himself in a hotel's great dining room, takes a table where he can be seen. Throughout his meal he wears a deeply studious, a completely absorbed, attitude. He may bring to the table a portfolio filled with papers. These he may scan with prolonged solemnity. In any event, he sits an eloquent tableau of profundity.-New York Press.

Holidays in the States.

Washington's birthday is a hollday in all states. Decoration day in all states but Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee and Texas. Labor day is observed everywhere. Virtually every state has legal bolidays having to do with its own special affairs-battle of New Orleans in Louislana, Texan independence and battle of San Jacinto in Texas. Admission day in California, and so on. Mississippi is like the federal government in lack of statutory holidays, but by common consent Independence day, Thanksgiving and Christmas are observed. A new one 's Columbus day in a few of the states.

Planting Wedding Oaks.

Princess August Wilhelm, wife of the kaiser's fourth son, has set herself the task of reviving one of Germany's oldest customs, that according to which newly wedded couples immediately after the marriage ceremony plant a couple of oak raplings side by side in a park or by the roadside of their native town.

The town of Mulchausen, in Thuringia, is the first to respond to the princess' appeal. A municipal official appears at the church door after every wedding and invites the bride and bridegroom to drive with him in a carriage to a new road near the town and there plant oak saplings.

The tree planting idea was started by a former elector of Brandenburg with the object of repairing the ravages caused by the 30 years' war. The elector forbade young persons to marry until they had planted a number of fruit trees.

An Unnecessary Confession. A hearty laugh was occasioned at

the Birmingham police court by a prisoner who gave himself away in a very month's imprisonment for what seems | delightful manner. The man was the first on the list, and the charge against him was merely one of being drunk and disorderly. He stepped into the dock, however, just at the moment he happens to be a fireman whose when the dock officer was reading out station is in her own neighborhood it a few of the cases which were to come were made by Alaskan Indians, and into a lot of boxes, and you throw old occurred to her it would be very easy before the court that morning, and a guilty conscience apparently led him and they you empty the molten stream lag the glass of the fire alarm and to mistake these items for a list of his previous convictions

He stood passive enough while the officer read out about a dozen drunk and disorderlies, but when he came to one "shopbreaking" the prisoner exclaimed excitedly, "That was eight years ago, your honor," Everyone being the blunder he had made, at first looked very black indeed, but finally saw the humorous side of the matter. and a broad smile spread over his face. His blunder did not cost anything .-Birmingham Mail.

That Suit for Libel

Against the Postum Cereal Co., Ltd., Gave a Splendid Chance to Bring Out Facts

A disagreement about advertising arose with a "weekly" Journal. Following it, an attack on us appeared in

their editorial columns; sneering at the claims we made particularly regarding Appendicitis. We replied through the regular papers and the "weekly" thought we hit back rather too

hard and thereupon sued for libel. The advertisement the "weekly" attacked us about claimed that in many cases of appendicitis an operation could be avoided by discontinuing indigestible food, washing out the bowels and taking a predigested food Grape-

Observe we said MANY cases not all. Wouldn't that knowledge be a comfort to those who fear a surgeon's knife as they fear

death? The "weekly" writer said that was a lie. We replied that he was ignorant of the facts. He was put on the stand and compelled to

admit he was not a Dr. and had no medical knowledge of appendicitis and never investigated to find out if the testimonal letters to our Co. were genuine.

A famous surgeon testified that when an operation was required Grape-Nuts would not obviate it. True.

We never claimed that when an operation was required Grape-Nuts would prevent it. The surgeon testified bacteria [germs] helped to bring on an attack and bacteria was

grown by undigested food frequently. We claimed and proved by other famous experts that undigested food was largely responsible for appendicitis.

We showed by expert testimony that many cases are healed without a knife, but by stopping the use of food which did not digest, and when food was required again it was helpful to use a predigested food which did not overtax the weakened organs of digestion.

When a pain in the right side appears it is not always necessary to be rushed off to a

hospital and at the risk of death be cut. Plain common sense shows the better way is to stop food that evidently has not been

digested. Then, when food is required, use an easily digested food. Grape-Nuts or any other if you know it to be predigested (partly digested before taking).

We brought to Court analytical chemists from New York, Chicago and Mishawaka, Ind., who swore to the analysis of Grape-Nuts and that part of the starchy part of the wheat and barley had been transformed into sugar, the kind of sugar produced in the human body by digesting starch (the large part of food).

Some of the State chemists brought on by the "weekly" said Grape-Nuts could not be called a "predigested" food because not all of it was digested outside the body.

The other chemists said any food which had been partly or half digested outside the body was commonly known as "predigested."

Splitting hairs about the meaning of a word. It is sufficient that if only one-half of the food is "predigested," it is easier on weakened stomach and bowels than food in which no part is predigested

To show the facts we introduce Dr. Thos. Darlington, former chief of the N, Y. Board of Health, Dr. Ralph W. Webster, chief of the Chicago Laboratories, and Dr. B. Sachs, N. Y.

If we were a little severe in our denunciation of a writer, self-confessed ignorant about appendicitis and its cause, it is possible the public will excuse us, in view of the fact that our head, Mr. C. W. Post, has made a lifetime study of food, food digestion and effects, and the conclusions are indersed by many of the best medical authorities of the day.

Is it possible that we are at fault for suggesting, as a Father and Mother might, to one of the family who announced a pain in the side: "Stop using the food, greasy meats. gravies, mince pie, cheese, too much starchy

food, etc., etc., which has not been digested, then when again ready for food use Grape-Nuts because it is easy of digestion?" Or should the child be at once carted off to

a hospital and cut? We have known of many cases wherein the approaching signs of appendicitis have disappeared by the suggestion being followed.

No one better appreciates the value of a skilful physician when a person is in the awful throes of acute appendicitis, but "an ounce

of prevention is worth a pound of cure." Just plain old common sense is helpful even nowadays. This trial demonstrated Grape-Nuts food

It is partly predigested. Appendicitis generally has rise from undigested food.

is pure beyond question

It is not always necessary to operate. It is best to stop all food.

When ready to begin feeding use a predigested food It is palatable and strong in Nourishment.

It will pay fine returns in health to quit the heavy breakfasts and lunches and use less food but select food certainly known to contain the elements nature requires to sustain the body. May we be permitted to suggest a breakfast of fruit, Grape-Nuts and cream, two soft boiled eggs, and some hot toast and cocoa, milk or Pestum?

The question of whether Grape-Nuts does or does not contain the elements which nature requires for the nourishment of the brain, also of its purity, will be treated in later newspaper articles

Good food is important and its effect on the body is also important.

"There's a Resson" Postum Cereal Co., Ltd., Battle Creek, Mich.