

WASTE IN IRRIGATING

Extensive Swamps Are Being Created in Some Sections.

Irrigation of Crops is New Science, and It is Logical That Perfection is Not Being Reached in Its Application.

In many sections of the irrigated districts extensive swamps are being created by the excessive use of water. Unless some effective measure is promulgated to check this excessive use of water a loss which can hardly be estimated is sure to result. This common mistake can be corrected by authoritative state or national government restriction of the use of water in irrigation.

The irrigation of crops is a new science, and it is logical that perfection has not been approached in its practical application. The excessive use of water is a natural tendency under the conditions which have developed this science. The farmer does not attempt to determine the amount of moisture his land carries under normal conditions, nor what degree of moisture a certain crop requires. The men of science have demonstrated that an excess over 20 per cent. is detrimental to almost all crops. This excess of moisture excludes the air from the soil and at the same time, carries off the fertility of the soil and impoverishes the land permanently. If the best results in physical condition and fertility of the soil are secured there can be no waste of irrigation by a sub or surface flow from the field. The system of irrigation which creates swamp conditions not only wastes the water but wastes the fertility of the land that is being irrigated. This double waste should be effectively stopped by the authority of law.

While we are expending millions of dollars in redeeming plants we are making extensive swamps by an extravagant waste of water. When land is correctly irrigated there can be no waste of water to overflow or make swamps by capillary flow. These new swamps are presenting serious engineering problems of drainage. The release of water from subterranean basins is expensive and uncertain. The drainage proposition can be simplified by an effective control of the water—which is supplied at such a great expense, and which is in demand for the redemption of excessive desert areas. It will be a blessing to the land owner who is constantly putting the natural mineral fertilizers of his soil into solution and sending it to the swamps and the so-called alkali beds to become a menace and a waste. Any restrictive measure which could be enforced to prevent the excessive use of water would be forth millions to the farm owners. That same measure would redeem the millions of dollars worth of land now in swamp wastes.

Unless the irrigator can be induced or compelled to retain all the waste water on his land the well-drained land will become an impoverished waste, and the land into and upon which this water flows will become worthless alkali beds.

The excessive user of water—and his name is legion—should be saved from self destruction; and his neighbor should be protected.

Milking Machines.

The use of milking machines has been considerably extended in Victoria, Australia, during the past season; and, owing to the scarcity of suitable labor on dairy farms, their adoption may be expected to become even more general. The provincial board of agriculture says: "It is advisable to emphasize that the utmost care and cleanliness are necessary. A haphazard method of dealing with rubber tubes and fittings cannot be tolerated. Greater care is necessary with these machines than is the case with the ordinary pail; but, given that extra intelligent attention, milking by machinery should not detrimentally affect the quality of the product. It is advisable to cleanse the cow's teats before attaching the milking cups and to carefully strip every cow after the machine is detached to see that no milk has been left behind. Animals regarding which there may be any suspicion should be hand-milked. With these precautions the machine will answer every purpose."

Cutting Corn for Silage.

The composition of corn undergoes rapid changes from the tasseling period until maturity. The dry matter shows an increase of one and three-fifths tons per acre from the time the corn is in tassel until the kernels are dried. Tasseled corn has only one-fifth as much dry matter as mature corn. It is owing to such changes that corn must be cut at the proper stage if it is to make the best silage. If cut too green, the silage will sour more easily and will not possess the fullest food value. Immature corn is often the cause of the complaints that silage makes undesirable milk. If cut too ripe, the desired succulence is lost. The proper stage for cutting is when the lower leaves have commenced to turn brown, yet when the greater part of the leaves are still green. The kernels should be out of the milk stake and dented and hardened.

Profit in Calves.

Some dairymen believe it doesn't pay to raise calves. These men are shortsighted, and if they continue in the business many years will realize the folly of their policy.

INJURY BY OVER-IRRIGATION

Costs More to Get Water Out of Irrigated Country Than It Does to Get It In.

"When once the habit is formed," says an expert irrigator, "it is so much easier to irrigate than it is to cultivate when the crop shows signs of distress, that the water is turned on till the soil as well as the crop are swamped. Alkali, malaria, lack of air in the soil and many other troubles common to over-irrigation follow."

This is all too true, and explains why dry farming, where the subsoil is sufficiently moist, is in so many places showing results almost as good, and occasionally better, than over-irrigated soils alongside them.

Extensive travel and observation in the great irrigated sections of California, Washington, Colorado and Montana has convinced us that, where the country is at all level, the old saying is true, that in time, "it takes more money to get the water out of an irrigated country than it does to get it into it." When we were in Fresno, California, last, the people of that country were holding public discussions on how best to relieve it from the ruinous sub-irrigation which shows up in lakes in some spots, and in malaria or ruined vineyards and orchards in others. It was estimated by some who were advocating appealing to the government for aid, that it would take several millions of dollars to rid that and an adjoining county of surplus water.

We believe that dry farming methods can be used in connection with irrigation, even in the more level and slow draining sections so that most of the evils of over-irrigation can be avoided; and we believe, too, that the widespread interest in dry farming is going to do much along this line.

It seems to us that with care to apply only the amount of water needed at the time, too little rather than too much, followed by liberal tillage, there should be no more danger of souring, alkaling or otherwise water-logging the land than in sections where there is ample rainfall. But the temptation to put on too much water, particularly by the beginner in irrigation, seems almost irresistible, and all newly irrigated sections pay little attention to these warnings, till sickness or serious loss stares them in the face, and then the cost of remedying is great.

IRRIGATE IN VARIOUS WAYS

Current Motors Used to Force Water From Rapidly Moving Rivers—Other Pumps on Barges.

Irrigation as practiced by the ancients and in the early days of its exploitation in this country was purely a matter of gravity. Though most of the government irrigation projects are based upon the gravity principle there are numerous successful irrigation districts where various other forces are employed.

The government has a pumping plant on the Williston project in North Dakota in which the pumps are located upon barges on account of the varying heights of water in the Missouri river. Connection is made to the canals along the shore by flexible pipes.

In the only government irrigation project in Kansas water is obtained by pumping from twenty-three wells, the pumps being driven from a central power station. In certain instances on other projects water is pumped to higher benches from canals which are filled by gravity and which supply a lower portion of the irrigated tract by gravity.

In New Mexico and a part of west Texas the water supply is from wells, some freely flowing artesian and some from which water has to be pumped. In Arizona, on one of the government projects, use is made of a large wheel to elevate water from "low line" to "high line" canals.

Water distribution is effected in various ways. Generally the water flows by gravity in open canals and ditches; sometimes in pipes underground with hydrants at intervals discharging into ditches; sometimes for truck gardens and the like, in overhead sprinkler pipes. One system resembles the rotating lawn sprinkler on a large and numerous scale.

POULTRY NOTES.

Oats are not generally fed to fowls. Insect pests are sure to come from neglected houses.

Some animal food should be supplied for egg production. Moth balls or lime in the nests will not keep the mites away.

You can keep a good hen just as cheaply as you can a poor one.

Farm hen houses are usually constructed of lumber but concrete structures are coming.

Poultry raisers, whether on a small or large scale, are fast learning the value of cleanliness.

Winter quarters should be thoroughly cleaned before the fowls are allowed to be placed in them.

When fowls seem to have nothing to do, keep food away for a time. Keep the chickens busy. Loafers are no good.

Litter on the floor is all right, if it is all right. If it is full of filth, better shovel it out and give your birds the naked floor.

If there is one rule which poultry raisers would profit by more than any other it is: Keep but one good standard variety of fowls.

Be your own trap-nest. Takes a bit of time, but when you get done you know which are the hens that are putting eggs in the basket.

WASHINGTON GOSSIP

Nation Loses Millions by Bad Roads



WASHINGTON.—In the United States there are in all about 2,500,000 miles of roads of one kind or another—enough to reach around the earth 100 times. Much of this, however, is of a character not worthy of the name road. Some of it is little better than a rock pile, and others are wide tracks through ditches and swamps. Of the whole only seven miles in each hundred can be said to have any improvements whatever, and on the most of it the improvements are such as to be unworthy of note. Altogether not two per cent. can be called first class. With the proper improvement of this network of roads will come a saving that will richly repay the nation.

The roads in the United States may not be the very worst in the world, but they are bad enough as a whole, that is certain, compared with those in other civilized countries. Europe is a network of magnificent highways. In Germany, France and England one can ride for miles without striking a stone or a puddle. This does not add to pleasure alone. It is the means of

saving millions of dollars each year to those countries where such roads are maintained.

The cost of hauling over our country roads is now about 23 cents per ton to the mile. In the European countries as long as 18 years ago the cost had been reduced to 10 cents, and it is much lower today. On some of the roads going into London, by the motor cars now in use, it is less than four cents, and by wagon freight can be hauled almost anywhere on the continent for from one-half to one-third its cost in the United States. The saving effected under this system amounts to hundreds of millions of dollars every year.

According to the report of the interstate commerce commission in 1906, our railroads handled more than 800,000,000 tons of freight which originated on their respective lines. All this had to be taken to and from the cars. A great deal of it was made up of the products of the farm and the forests, and it is estimated that at least 200,000,000 tons of it had a haul of nine miles at a cost of 23 cents a ton. That bill alone would represent more than \$400,000,000, and other freights and hauling would run the sum to \$500,000,000 or over. Now suppose we cut the wagon freight bill in half, or to 11½ cents a ton, which is still far above the cost of hauling in Europe, and the saving would be \$250,000,000 a year.

Government Busy Cleaning Out Opium

SLOWLY the federal arm is sweeping in the opium fiends. The recent raid here by internal revenue agents, when \$8,000 worth of the drug, prepared for smoking, was confiscated and the distributing organization for the District of Columbia broken up, was one of a series of big hauls in the larger cities of the country in recent months, as a result of which several hundred thousand dollars' worth of the drug is now in government possession.

In the last five months just such hauls, many larger and more important, have been made by means of which agents have in many cases been able to trace the drug to the illicit manufacturers, thus dealing the most serious blow of all. In Terre Haute, Ind., where the richest haul of all was made, nearly \$100,000 worth of the drug was found when the inspectors raided a small river shack where the crude opium was being prepared for distribution to smokers throughout the middle west.

"We are learning how to go about it. We are discovering the haunts of them," said a special officer. "It has been a hard job, because there is no interstate regulation. There is a bill for that purpose before congress now."

Mammoth Guns to Guard Panama Canal



THE greatest gun ever built will become part of the coast defense at the Pacific end of the Panama canal. The giant weapon is now at Sandy Hook, N. J., but according to orders received from the war department it will soon start on the most remarkable journey ever taken by a weapon of its size. It weighs 180 tons, is 50 feet in length, with a 16-inch caliber and power to throw a 2,400-pound projectile a distance of 23 miles. The gun is being moved because war authorities believe New York is in less danger of being attacked than the west end of the Panama canal. There no ship that pokes its nose above the horizon will be safe against the monster gun for with a single well-directed shot it could send to the bottom the largest war craft the world knows today.

Bar Unbidden Guests From Naval Ball

RESTRICTIONS placed upon midshipmen at the naval academy in the matter of guests at academy dances has brought forth from officials of the navy department a remarkable statement. It was disclosed that heretofore the doors of the naval academy have been opened wide on the evenings of dances, and all presenting themselves at the doors dressed as for a dance have been admitted without question.

Several embarrassing situations have developed from time to time involving midshipmen in serious trouble. Henceforth, it is stated, the academy officials will require that no person be admitted without presenting a card of invitation, and the names of all persons to whom such cards are issued are to be listed.

"The invitations to balls and hops at the naval academy," says the statement, "have been either a source of misunderstanding or a cause for attempting to stir up class prejudice. Few fathers and mothers with sons at the naval academy but would de-



THE only way to stamp out the use of opium and cocaine primarily is through interstate regulation.

"Since the importation of opium was prohibited, in 1909, a process of manufacture has been evolved which has left the door wide open again. The process of manufacture is very simple and can be carried on quietly for years. The crude opium is bought from druggists who, without an interstate regulation law, can import the crude drug and distribute it at will. Since last fall we have made hauls in every large city in the country, including New York, Buffalo, Washington, Providence, Chicago, Terre Haute, Kansas City, St. Louis, Denver, Omaha, Seattle, Los Angeles, San Francisco, Boston and Philadelphia. These hauls have all brought out something and given a line on the traffic generally."

Bar Unbidden Guests From Naval Ball



sire and expect the authorities having their sons in charge to endeavor to keep them apart from that special form of temptation that haunts all places where large bodies of young men are collected together.

"When the academy was much smaller and the number of guests consequently fewer, there was little difficulty in keeping a careful scrutiny at the doors of the ballrooms; but the number of guests attending has made this practically impossible.

"Is it too much to ask that only those invited should attend, and that cards of admission should be issued to authenticate the guests? Is there any decent ball or assembly of any size which is not protected by some similar precaution?"

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HE WAS NEXT.



Katherine—There is never any excuse for ignorance.

Kidder—That's right. There were even knight schools in the dark ages.

BABY'S ECZEMA AND BOILS

"My son was about three weeks old when I noticed a breaking-out on his cheeks, from which a watery substance oozed. A short time after, his arms, shoulders and breast broke out also, and in a few days became a solid scab. I became alarmed, and called our family physician who at once pronounced the disease eczema. The little fellow was under treatment for about three months. By the end of that time, he seemed no better. I became discouraged. I dropped the doctor's treatment, and commenced the use of Cuticura Soap and Ointment, and in a few days noticed a marked change. The eruption on his cheeks was almost healed, and his shoulders, arms and breast were decidedly better. When he was about seven months old, all trace of the eczema was gone.

"During his teething period, his head and face were broken out in boils which I cured with Cuticura Soap and Ointment. Surely he must have been a great sufferer. During the time of teething and from the time I dropped the doctor's treatment, I used the Cuticura Soap and Ointment, nothing else, and when two years old he was the picture of health. His complexion was soft and beautiful, and his head a mass of silky curls. I had been afraid that he would never be well, and I feel that I owe a great deal to the Cuticura Remedies." (Signed) Mrs. Mary W. Ramsey, 224 E. Jackson St., Colorado Springs, Col., Sept. 24, 1910. Although Cuticura Soap and Ointment are sold by druggists and dealers everywhere, a sample of each, with 32-page book, will be mailed free on application to "Cuticura," Dept. 5 L, Boston.

Same.

Friend—What were your sensations in the wreck? Victim—Just the same as in football. Three coaches passed over me, and then the doctors came.—Puck.

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