

SIPHON PLAN BEST

Allows Water to Flow Gently Without Erosion.

By This Plan Ditch Banks Are Not Disturbed and Harden Until There Is No Danger of a Break—Soil Is Thoroughly Soaked.

I had two seasons' experience as an irrigator in California before I tried irrigating in Idaho, writes Miller Purvis in the Breeder's Gazette. On the benches in the foothills of the coast range in northern California, where the soil is a reddish clay, we simply cut the ditch banks, regulate the flow through the cut by laying two stones in the opening and let the water run for a day or two, never thinking of erosion. I tried this in Idaho and within a few minutes all the water in the service ditch was going down one lateral and washing a deep channel through the ash soil.

Then someone told me that the best way to do was to make a long box-like tube by nailing the edges of four plastering laths together and sink this in the ditch bank. I was told this would prevent the water from washing its way into one lateral and make it possible to divide evenly the water among all the laterals in the field. I made a lot of these lath boxes but they did not work on my kind of soil as the fields were too steep. A couple of young chaps, who remembered something about physics, concluded that they could carry the water over the banks of the ditches in siphons. They bought some ordinary gaspipe three-fourths of an inch in bore, cut it into five-foot lengths, bent the pieces over a wagon wheel and tried them out. Then they immediately got busy making more siphons. I then tried the siphon plan and the water that came down the service ditch became so gentle and obedient that it went wherever I wished, in any quantity I wished and with the least possible erosion of the land. It gently flowed through the pipes and trickled across the fields, soaking the soil thoroughly without carrying more than a small quantity with it. I have watched irrigators trying all sorts of plans to prevent erosion in this soil but not one of them works so well as the siphons.

Necessarily my various service ditches must run down hill, making a swift current which rapidly washes deep into the soil until the water in the ditch is not available. To prevent this we use canvas dams or checks. These are simply widths of common canvas fastened to a strip. They are long enough to reach well across the ditch. An illustration shows the manner in which the canvas is fastened to the cross bar so as to allow surplus water to run out at the center of the ditch. In using these checks the bar is laid across the ditch, the canvas spread on the bottom and a little earth puddled along the edge. Each check raises the level of the ditch, "kills" the current and prevents erosion, also making it easier to use the siphons by raising the level of the water. The same illustration shows the siphons in use, where two checks are close together. Just here the grade pitches down quite steeply and on the left between the two checks is shown the upper end of a ditch which runs steeply down hill. It was necessary to run the ditch here to get below the crater shown in another illustration and it will be seen how steep the land lies. To save wasting land the ditch was run around this pile of lava rock and comes to a dead end. By raising the cross bar in one of the checks more water can be held back, or lowering it will let more water through the opening in the check. It was necessary to regulate the flow of water very nicely. If too little came down the siphons would draw the water out and stop. If too much came down the dead end of the ditch would overflow.

By this system the ditch banks are not disturbed and soon harden until there is no danger of a break. By putting the siphons in deeply or less deeply the flow of water they deliver can be regulated. There is no danger that the water will wash out the ditch bank where they are set and the flow is so gentle that the light soil is not carried down the ditch. Cuts in the ditch bank must be filled as soon as one irrigation is finished; lath boxes must be reset at every irrigation and often several times during one irrigation, but siphons can be moved from place to place at any time and are always ready to work. Since they have been introduced here more and more ranchers are putting them in.

Land Values Increase.
The increase of land values due to the irrigation work by the national government is now estimated at over \$108,000,000. This is considerably more than the cost of the irrigation plants and shows the direct gain from such forms of conservation. And as the government will be reimbursed ultimately by those who get the benefit of a water supply for their land and who pay a reasonable charge for the privilege it will be perceived that the people as a whole will be "out" nothing, while they will share in the advantages that come from much greater producing capacity.

Irrigation Projects.
The irrigation projects of the country have called for the erection of the five largest dams in the world.

USE PUMP FOR IRRIGATING

Some Practical Suggestions by New Mexico Farmer on Pumping Water With Small Engine.

Some days ago I read an article answering a query in regard to putting in a small irrigation outfit to water two acres of garden. Practically all the water we get in this region (Columbus, N. M.) is lifted by a pump of some sort, and in the light of experience in this method of irrigation I would offer some suggestions which will help the man who has the courage to take charge of weather conditions in the event that rain fails to fall, says a writer in the Rural New Yorker. The two-inch pump and 2 1/2 horsepower engine will take care of the two acres nicely, furnishing about 125 gallons per minute at a speed of 800 revolutions if properly lined out. The installation will be more simple to use the foot valve on the suction pipe and keep the pump above water. If there is danger of debris in the creek sink a box around the suction. It would be an expensive mistake to use a two-inch pipe for 200 feet and work the little engine against so much friction. A three-inch pipe connected to the pump by a reducer and run up at an angle of 45 degrees to a vertical height of 18 feet arranged to empty into a wooden flume which connects with the garden will avoid excessive speed of the water and also do away with most of the pipe. The suction should be at least 2 1/4-inch pipe. If this is not suited to conditions use four-inch pipe from pump to field. This may be made of heavy galvanized pipe material and reduced to the two-inch connection on the pump, but the flume will be more satisfactory if it can be used. The flume may be cheaply made with two boards put together, pig-trough style, and lined with roofing paper, lapping the joints like shingles.

Another thing should not be lost sight of; when the field needs irrigation it probably will all need it at once, for the rain wets the whole patch the same day, and it would be a wise plan to pump an earth tank full of water and have it on hand if the ground can be sufficiently puddled to hold water; 125 gallons per minute is a feeble stream to do anything with, and less than that is little more than an aggravation unless it be stored up until sufficient "head" has accumulated to put it out and over the ground. The free government pamphlet, "Practical Irrigation for Beginners," will be very helpful in giving methods for handling the water. The 125 gallons per minute should be delivered at a cost of not more than 30 cents a day for engine naphtha if the right machinery is selected, and the best should be procured; it's the cheapest in the end.

Care of Bees.
Bees left to themselves will generally send out one swarm in a season, often sending out a second swarm, sometimes a third, says a writer in an exchange. In our practice we always have supers partly full of empty comb, and this makes the giving of room to the bees much more practicable than when empty sections are given, for there need be no delay in the work, no waiting on the builders, no hanging clusters while the honey is wasting in the fields. The young bees, then, do most of the comb building.

Securing Fertile Eggs.
Hens that have a wide range keep thrifty and lay fertile eggs. The eggs for hatching should be chosen from early-hatched pullets that have been properly fed from the day they are hatched out. The eggs from close-yarded hens are not fit for setting.

FARM NOTES.
Jimson weed is poisonous. Have you begun to test the seed corn yet?
Cheap harness often proves an expensive instrument.
A little axle grease applied where it belongs saves horseflesh.
A cheap paint can be made from a solution of borax and water mixed with linseed oil.
Carrots are high in feeding value and are relished by all kinds of stock, including horses.
Better corn means heaped production, and cheaper production means larger net profits.
Sow seeds of beans in pots. In a hotbed sow peas for an early crop. Use the dwarf early kinds.
The variety of potatoes to plant depends upon the kind of soil in which they are to be planted.
When the silo replaces the straw the bank account will exchange places with the mortgage.
One potato grower selects from hills containing six or more potatoes of marketable size and no culls.
Among the duties of spring, if the work has been neglected in the fall, is the examination and repair of the machinery.
Many of those who undertake farming for the first time will necessarily fail for lack of experience and knowledge; a few will succeed.
Consider carefully the matter of outfit for machinery in order that all the machinery on the farm may earn a fair return upon the money invested.
If the onions in storage have become frozen, keep them so by an extra covering. Freezing does them no harm, but alternate freezing and thawing is ruinous.
Repair the trellises, arbors and other garden fixtures while the plants are dormant. After painting the supports, prune the vines and tie them up again for another season's growth.

HAPPENINGS IN THE CITIES

Make Their Homes on House Tops



NEW YORK—All of New York's animate myriad do not dwell on the surface. High over the heads of sightseers, at the summit of some of the tallest office buildings in the world, live men, women and children, who find life particularly good there in the hot nights of summer.

A writer for the New York Tribune was invited to visit such a home the other day, and after using the elevator to the roof entered a comfortable looking living room, occupied by a happy looking family. Far from earth as it was, the room looked pleasingly earthlike and real.

The living room had one entrance, through a passage from an office, and two exits, one to the roof and the other into a large parlor. Beyond that was a big bedroom. The roof was, of course, at noon in summer, a hot desert surrounded by a hot parapet.



MUSKOGEE, OKLA.—A sleepy and "busted" Dan Cupid, kicked out into the world because of his poverty, one morning recently wearily "hoofed" it along the ties to Oktaha, whence he had come a few short hours before.

Little Jenny Hosmer, an Indian maiden of sixteen years, who had eloped from Oktaha with Wesley Moran, about her own age, was not long in deciding that a couple cannot live on love alone, and ten hours after the elopement had begun the young lover, tired and dejected, was returning to the plow he had hurriedly left standing in the field, having been given his dismissal by his little sweetheart.

Jenny Hosmer, although only sixteen, is heiress to a thousand acres of land near Oktaha. The entire town site of Wiebert belongs to her, having been given it in a will by a relative. When she grows up Jenny will be rich, but riches could not compare with her love for Wesley Moran. To

But the view from an altitude of 350 feet was splendid, and at night, when the moon came out over the thousands of lights of river and bay, the sight was enchanting.

The "sky pilot" who led the way said that the heat was not overwhelming to him up there or to his household at any time, "for," he remarked logically, "if there is any breeze going, don't we get it?"

"Do you ever have any mosquitoes up here?"

"Very seldom."

"How about thunderstorms?"

"Being near the clouds doesn't make it any worse."

Being asked if he did not miss the grass and flowers he sighed a little, recalling some country bower, no doubt, but quickly pointed out a bed of flowers in a cupola that "the boys" called their "flower house" or "hot-house."

"So you have boys? And how do they enjoy this elevation?"

"At first they thought it was the greatest out, but you know how kids are. It all lost its novelty in time, and now they think more of the subway than of the sights from so great a height as this."

wall several years was out of the question.

And so Moran left his plow standing in the furrow, the team still unhitched, and in his shirt sleeves eloped with Jenny Hosmer, who wore nothing but a little dress of cheap calico.

Being without a penny, the two walked along the railroad ties to Muskogee. When this city was reached at four o'clock in the morning Jenny had already tired of a poverty-stricken love, and she "sent Wesley back to Oktaha."

Taking the maiden at her word, back to Oktaha Moran walked. The girl's aunt and guardian, Mrs. John Newberry, who came to the city looking for the girl, found her at the home of J. R. Redding on Oak street.

When the aunt rode up before the house in the police patrol, Jenny climbed in, smiling, but said not a word. On the long ride back to headquarters she refused to answer questions, but later told a reporter that she had sent Wesley home. In the same little calico dress in which she eloped, Jenny was taken back to her home in Oktaha.

The two came to Muskogee, the girl said, because she liked to see a big city, and Wesley did, too. Jenny says she is sixteen, but she looks not more than thirteen.

"Busted" Cupid Kicked Out In Cold

Grandmas Quote Spirits in Suit



DES MOINES, IA.—In the remarkable suit just tried here for the custody of little Jennette Edwards between her rival grandmothers, in which testimony purporting to be the wishes of the child's father and mother, both of whom are dead, conveyed by means of a spiritualistic medium was offered, Judge Ransier awarded her to the temporary care of the child's mother's parents, Mr. and Mrs. W. H. Robinson, and assessed the costs of the action against Mr. and Mrs. L. H. Edwards, the parents of her dead father.

Mrs. L. H. Edwards of Cedar Falls, sister of Secretary of Agriculture "Tanna Jim" Wilson and Mrs. W. H. Robinson, a physician of Denver, were the litigants for the possession of Jennette, who is eight years old. The opposing grandmothers are spiritualists, each marshaling what she believed to be a formidable line of ghostly evidence in support of her cause.

Sells Wife and Children for \$1



PHILADELPHIA.—According to the story told by Mrs. Mary Gugisa of 1817 South Lee street, this city, to Magistrate Hughes she and her three children were sold by her husband for \$1 to a man who, she declares, has threatened to take her by force.

In broken English she asked that her husband be found and made to support her and the three children whom he had left at home to starve. Though the alleged transaction took place some time ago and though the woman repudiated the man who claimed her as his property, she declared that she was still in fear that he might come forward, now that her husband has disappeared, and force himself into her home.

"It was three years ago," she said. "That my husband sold me. He wanted money for more liquor. He gave me and the children for \$1, and I didn't know anything about it. When the

man came to me and said: 'I will live here. I own you, you belong to me, I paid for you,' I thought he was crazy. I said, 'you won't live here,' and I tried to drive him out of the house; then he showed me my marriage certificate and said he had bought me for \$1. I snatched it from him, and I have it now where he can't get it; but I am afraid."

Magistrate Hughes sent two of his officers to the woman's home to verify her story.

The youngsters were huddled together on the kitchen floor before the stove, which apparently had not had fire in it for days. The baby of nine months was crying, and the other two, Joe, five, and George, a year or so younger, were gnawing at chips of wood which they had picked up in the street to kindle a fire. There was not a vestige of food in the house and the children were blue with cold and half starved. In one of the upper rooms the officers found an emaciated boy, Mrs. Gugisa's brother, who recently came from Poland, and who is suffering with tuberculosis.

Magistrate Hughes provided enough money to buy food for the family for a few days.

"SPOHN'S"

This is the name of the greatest of all remedies for Dintemper, Pink Eye, Heaves, and the like among all ages of horses. Sold by Druggists, Harness Makers, or sent to the manufacturers, \$2.50 and \$1.00 a bottle. Agents wanted. Send for free book. Spohn Medical Co., Spec. Contagious Diseases, Goshen, Ind.

Covered.
Mother—Did you paint the table?
Father—Yea, I gave it a coat and two pairs of trousers.—Harper's Bazar.

Garfield Tea assists overworked digestive organs, corrects constipation, cleanses the system and rids the blood of impurities.

Full life exists in three dimensions, art in two, and science in one; like a solid, a superficies, and a line.

Reducing the waits between the acts will not lighten a heavy play.

Tell the dealer you want a Lewis' Single Binder straight 5c cigar.

A woman who has a nose for news usually has a chin for telling it.

Take Garfield Tea to overcome constipation, cleanse system and maintain health.

The better you behave the better you'll get along. Now, try it.

Mia-Future.

Knieker—Is he a has been?
Bocker—No, a going to was.

THE KEYSTONE TO HEALTH
IS
HOSTETTER'S STOMACH BITTERS

The Bitters is a boon to those in convalescence—when a tonic and strength maker is needed. Try it and see. A word to the wise is sufficient.

Before Allowing an Operation

Please Read These Two Letters.

The following letter from Mrs. Orville Rock will prove how unwise it is for women to submit to the dangers of a surgical operation when it may be avoided by taking Lydia E. Pinkham's Vegetable Compound. She was four weeks in the hospital and came home suffering worse than before. Then after all that suffering Lydia E. Pinkham's Vegetable Compound restored her health.

HERE IS HER OWN STATEMENT.

Paw Paw, Mich.—"Two years ago I suffered very severely with a displacement—I could not be on my feet for a long time. My physician treated me for several months without much relief, and at last sent me to Ann Arbor for an operation. I was there four weeks and came home suffering worse than before. My mother advised me to try Lydia E. Pinkham's Vegetable Compound, and I did. To-day I am well and strong and do all my own housework. I owe my health to Lydia E. Pinkham's Vegetable Compound and advise every woman who is afflicted with any female complaint to try it."—Mrs. Orville Rock, R. R. No. 3, Paw Paw, Mich.

Rockport, Ind.—"There never was a worse case of woman's ills than mine, and I cannot begin to tell you what I suffered. For over two years I was not able to do anything. I was in bed for a month and the doctor said nothing but an operation would cure me. My father suggested Lydia E. Pinkham's Vegetable Compound; so to please him I took it, and I improved wonderfully, so I am able to travel, ride horseback, take long rides and never feel any ill effects from it. I can only ask other suffering women to give Lydia E. Pinkham's Vegetable Compound a trial before submitting to an operation."—Mrs. Margaret Meredith, R. F. D. No. 3, Rockport, Ind.

We will pay a handsome reward to any person who will prove to us that these letters are not genuine and truthful—or that either of these women were paid in any way for their testimonials, or that the letters are published without their permission, or that the original letter from each did not come to us entirely unsolicited.

For 30 years Lydia E. Pinkham's Vegetable Compound has been the standard remedy for female ills. No sick woman does justice to herself who will not try this famous medicine. Made exclusively from roots and herbs, and has thousands of cures to its credit.
Mrs. Pinkham invites all sick women to write her for advice. She has guided thousands to health free of charge. Address Mrs. Pinkham, Lynn, Mass.

Feeble Guardianship.
"I wonder," said the Sweet Young Thing, "why a man is always so frightened when he proposes?"
"That," said the Chronic Bachelor, "is his guardian angel trying to hold him back."—Stray Stories.

Dr. Pierce's Pleasant Pellets regulate and invigorate stomach, liver and bowels. Sugar-coated, tiny granules, easy to take as candy.

Set yourself earnestly to see what you were made to do, and then set yourself earnestly to do it.—Phillips Brooks.

Mrs. Winslow's Soothing Syrup for Children teething, softens the gums, reduces inflammation, allays pain, cures wind colic, 25c a bottle.

An institution must be propped up by precedent when it is no more upheld by sap.

Take Garfield Tea in the spring to purify the blood and cleanse the system.

Envy is punishing ourselves for being inferior to our neighbor.

FREE SAMPLE CURED OLD PERSON'S BOWEL TROUBLE

One of the most remarkable proofs of the unusual laxative merit contained in Dr. Caldwell's Syrup Pepsin is that it is effective not only in people in the prime of life, but at the extremes of ages. As many letters are received from mothers regarding the cures of children, as from men and women of sixty, seventy and eighty years of age. It must be truly a wonderful laxative.

In the cure of constipation and bowel trouble in old people it has no equal. It corrects the constipation, dispels the headache, biliousness, gas, drowsiness after eating, etc. People advancing in years should see to it that their bowels move freely, and if they do not take Dr. Caldwell's Syrup Pepsin. You can pro-

Make the Liver Do its Duty

Nine times in ten when the liver is right the stomach and bowels are right.

CARTER'S LITTLE LIVER PILLS gently but firmly compel a lazy liver to do its duty.

It cures Constipation, Indigestion, Headache, and Distress after Eating.

Small Pill, Small Dose, Small Price. Genuine must bear Signature.

Small Pill, Small Dose, Small Price. Genuine must bear Signature.

DEFIANCE STARCH—13 ounces in the package—other starches only 13 ounces—same price and "DEFIANCE" IS SUPERIOR QUALITY.

If afflicted with sore eyes, use Thompson's Eye Water.