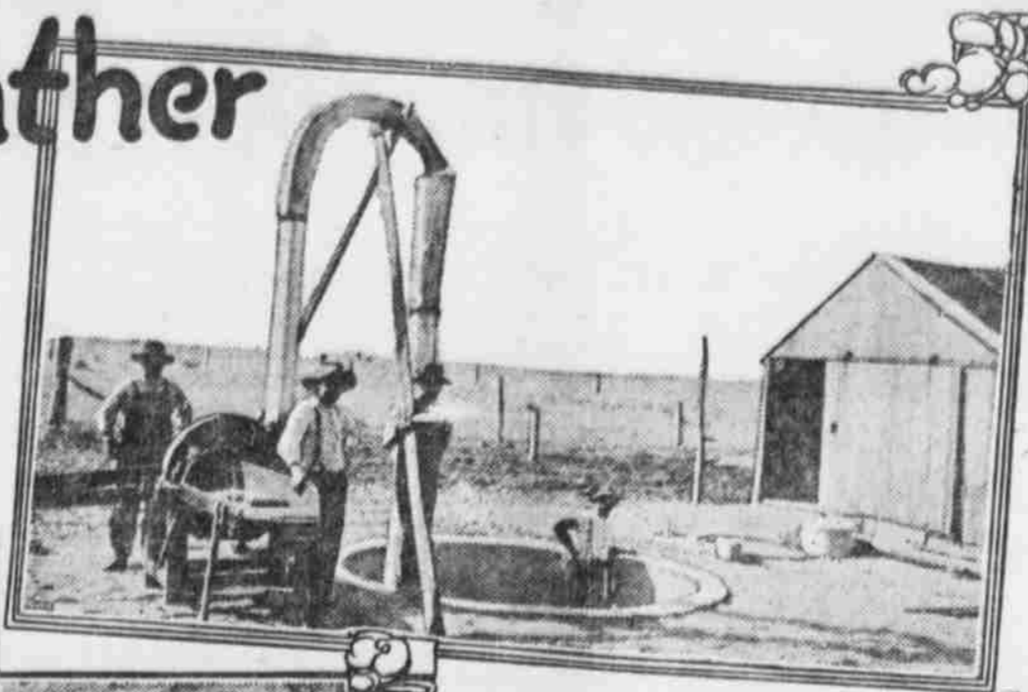


Fight Dry Weather With Holes in the Ground

By Robert H. Moulton

Farmers in semi-arid regions of west and Southwest make inexpensive silos by digging pits and lining them with cement: : Method may be used profitably in any part of country



METHOD OF FILLING SILO



USING REAPER FOR TRIMMING SIDES OF SILO



BUILDING UP SECTION OF SILO CURB

IN THE pit silo the farmers of the semi-arid regions of the Southwest have found a valuable aid in their efforts to wrest a living from the soil. In the winter of 1913-14, following the unprecedented drought of 1913, it proved its value to such an extent that hundreds of them have been constructed by the farmers of western Kansas, Oklahoma, eastern Colorado, northern Texas, and New Mexico. In one Colorado county alone—El Paso—the existence of a few pit silos last fall saved \$50,000 worth of live stock which would have perished in the severe winter following the dry summer. There were more than 200 pit silos in this county the past summer.

The silo is getting to be an old story on the prosperous farms of the middle West. The value of the great tank to preserve the feed values of forage crops and utilize them through the winter and spring when the pastures are resting, has been tested so often that nearly every successful farmer has constructed one or more of them.

The pit silo is only about three years old, and has been in extensive use for only two years. It is not a new thing, but it is new in the Southwest, where it is more valuable than in any other farming region in the United States. A few silos have been in use in Iowa, in Illinois, and even in Mississippi, for a number of years, but their use in these regions has not spread.

A silo is a water-tight structure into which corn and other fodder are packed while green so tightly that no space is left for air, and with enough moisture to insure fermentation. The material is generally cut into strips not more than an inch or two in length. In the winter, after the fermentation and curing process have been completed, the silo is opened and the "mash" is fed to live stock. It is as palatable and nourishing as green fodder, and exhaustive and long-continued experiments have proved that beef cattle, milch cows, hogs, horses, mules, and sheep thrive on it. The process preserves about 90 per cent of the food values of the green fodder. If the fodder is left in stacks or shocks it loses fully one-half of the food value through the drying-out process.

In the Southwest last winter and spring the owners of pit silos learned that the immature and hot-wind dried-out fodder crops, which would have been practically worthless as dry food, made a very good food when converted into ensilage in the pit silos. One illustration will prove its value in this regard.

J. C. Michael is a farmer in the Lincoln district of El Paso county, in eastern Colorado. In August, 1913, when it was apparent that the drought and hot winds had already made it impossible to secure a crop, Michael, assisted by two men working at odd times, built a 35-ton pit silo. The cash outlay was only \$4.45. Into this hole in the ground Michael packed the corn from ten acres, the best of which would not yield more than ten bushels per acre. The corn was immature, and there was no chance for it to improve. If harvested and stacked for use as fodder in dry form it would have been worth only a few dollars per acre.

From late fall until spring Mr. Michael fed the ensilage to 10 milch cows and 12 heifers, 20 pounds a day per head for the cows and five pounds for the heifers. No grain was fed, but the cattle were given a little millet and oat straw for roughage. The entire herd kept in good condition, and the ten cows provided Mr. Michael with ten dollars' worth of cream every week.

The pit silos in the Southwest are generally nothing more than holes in the ground lined with cement of varying thickness. Some of them are constructed with a heavy concrete collar to prevent the ground caving in and to keep out the moisture.

Some of them have concrete extension above the surface of the ground. There are all sorts and sizes and all shapes and kinds of construction, for the pit silo is still such a new farm device that it has not been standardized. The cost ranges from \$4.45 cash outlay for Mr. Michael, to \$150 for the larger ones, with an inch cement lining and heavy concrete collars extending deep into the ground and above-ground extensions. The average cost of the hundreds that have been built ranges between \$15 and \$20.

A number of interesting methods have been brought into use to make the most of this new form of silo. Two brothers, Ray and Fay Harner, who live near Colby, in western Kansas, have discovered a method by which they can dig a 30-foot hole for a pit silo in about two days. They contract to dig pit silos 10 feet in diameter and 30 feet deep

in the roof of the barn and blown to the winds. One man in Oklahoma's Panhandle last year, after he had built or dug a pit silo at a total cost of \$10, proved that Russian thistles can be converted into fair stock feed. This man was Albert Stone, who lives near Guymon. When his 15 by 17 silo was finished, with a \$2 shed over it, he found he was short of feed, and filled it with thistles, broomcorn, kafir and milo. The thistles were cut too late to make good feed, but in the fermenting process the thorns were softened and the cattle ate them readily. There was not enough from his 30 acres to fill the small silo, but Mr. Stone found that the results were sufficient to repay him. All winter he fed 7 milch cows, 12 horses, 6 calves, and several hogs, feeding them nothing but the silage. It lasted for three months. As dry feed it would have been gone in three weeks. That pit silo was the only source of revenue on the farm for the year, and the milk kept the family in groceries and other necessities.

Experiments covering a period of three years, made at the Kansas Agricultural college, have proved that silage from corn, from kafir and from sorghum have equal feeding value, ton for ton, for both beef cattle and dairy cows, when each variety is placed in the silo at the proper time. This proper time for corn is when the kernels are beginning to dent, for kafir and sorghum when the seeds have grown so hard they cannot be crushed between thumb and forefinger, and while the stalks and leaves are still green. These tests have proved that the practice in the past has been to cut kafir and sorghum too green to get the full feed value in the silage.

These tests will have a very important bearing upon farming in the semiarid districts. The best silage crop will be corn where the rainfall is ample, kafir where the rainfall is moderate, and sorghum where it is light. Sorghum is practically a cure crop, where it is well cultivated, in the driest years in western Kansas and Oklahoma, the Panhandle of Texas, and in eastern New Mexico and in Colorado.

Every farmer in the Southwest, it is said, needs a silo as badly as he needs anything; it is further said that not two men in ten are able to build an above-ground silo because of the expense. The pit silo, costing only one-tenth as much, and capable of being built by the farmer himself, is expected to solve this problem until farmers are able to purchase the more expensive and better above-ground silos of woods, tile, concrete or metal.

SOME STRANGE FARMS

People Surely Have Unusual Means of Money Making in United States.

Turkey has its mosques; Russia has its Cossacks; Germany has its U-Boats, and Mexico has its fleas; but the United States has the queerest farms in the world.

At Pasadena, Cal., Edwin Cawston operates what is perhaps the largest ostrich farm in the world. Of course, it isn't everyone who would care to keep ostriches. But Mr. Cawston doesn't mind it a bit, for he controls a great part of the ostrich-plume supply of the world. If you have ever purchased an ostrich plume of the first grade you may have a faint inkling as to how much money can be made from an ostrich farm. If you know how. Once Pennsylvanians got the fever and started an ostrich farm up near Sunbury, but the poor, unoffending birds refused to become acclimated; said they were not snowbirds, or something to that effect. Be that as it may, Cawston's ostrich farm remains today the greatest in the world.

At Victoria, in Mexico, there is a parrot ranch. And some distance beyond Los Angeles, Cal., there is an immense pigeon farm. There one will find nearly 15,000 pigeons. And almost everybody knows that there is money in pigeons; indeed, where is the schoolboy who hasn't kept a few at one time or another? Also, in Colorado there is a bear farm. And somewhere up in Canada is a man who is making money by rearing wolves; the skins bring handsome prices.

At Hot Springs, Ark., H. J. Campbell has an alligator farm, which is but another of the American queerest farms in the world. But down in Florida, where the alligator grows, the farmers used to shoot the whole blooming family. It is said that between 1890 and 1900 more than 8,000,000 snarlers were killed. Of course, perhaps there was ample reason for this wholesale butchery. The alligators seemed to take great delight in depleting the farmers' herds of cattle. Even the docile cow was not immune. Naturally, making away with the alligators in wholesale lots caused a shortage in alligator skin, and the leather manufacturers felt the pinch. Alligator farms were the result.

And Mr. Campbell goes Dame Nature one better—he hatches 'em out in incubators. After they get beyond the stage where they look like woolly worms with iron-clad backs, the alligators are allowed to shoot the chutes, play tag and otherwise make the most of life. But eventually—eventually—the sword of not Damocles but Campbell falls. Later, the pride of the family receives as a graduation gift a lovely alligatorskin grip or suitcase, and he and the baggage-smashers, all unmindful of the shattered romance and the pitiful tragedy back of the advent of the grip or suitcase, treat it shamefully. That's life for you.

In Texas the farmer is breeding buffaloes and crossing them with cattle. In Oregon they are raising Chinese pheasants, but the story of how

the ostrich was first introduced to America is one that must be told.

In 1882 an unknown soldier of fortune filled the hold of a steamer bound for New York with more than 100 ostriches. Now, these gigantic birds weigh as much as 200 and 300 pounds, even more. They are accustomed to sunlight, the open range and, above all, fresh air. But here they were, packed in badly ventilated pens in the smelly hold of a tramp steamer. The pitching and tossing of the steamer also was responsible for the death of many of the birds. At any rate, but a mere handful of the original shipment arrived in New York. Later they were shipped to San Francisco, and still later to Anaheim, in Lower California.

Terrapin farming is one of the newer industries. Down on the Isle of Hope, Georgia, is one of the greatest of all terrapin farms. And the United States bureau of fisheries has been studying the diamond-back terrapin for the last eight years down at Beaufort, N. C. There terrapin have been in the pounds for more than six years, and the young have long ago reached the age where they can take care of themselves.

William Hagan has an immense fur plant down along the shores of the Delaware—he raises muskrats, and makes money at it. During the season of 1914-15 Mr. Hagan realized more than \$2,000 clear profit on his immense farm, which extends over an acre of 614 acres. But muskrat farming is a very strenuous business. In the first place, the farmer must wait until fall before the real "farming" takes place. It is then that the skins are at their best. The animals are caught—the greater part of them—by means of stake traps; that is, traps attached to stakes. The stakes also serve as a guide. Then, too, the trappers take with them a needle-pointed rapier, used to spear any stray rat which may attempt to fleet at the first warning of danger to him or his. And those hip-booted trappers can spear a rat with all the deftness of a William Tell shooting an apple.

If you have never seen a muskrat farm, drop down to Mr. Hagan's place—you'll be surprised to see how an "underwater" farm is managed, and you'll hardly be able to believe there are so many muskrats in the world. Some days he averages more than 150, and he has come very near to the 200 mark. Yes, there's lots of money in muskrat farming; but unless you've got the constitution of an Alpine chasseur, don't attempt it.

Joseph Matlack of Moorestown, N. J., owns what is perhaps the largest guinea-pig farm in the world. This much is uncontradictable. He raises more of them than any grower in America, and makes money where others fail. Now, that's something to be proud of. Any man can be a farmer; but to be a successful farmer—well, that's something different. Of course, there are other guinea-pig farms which enrich their owners—lots and lots of them. But in the guinea-pig world Mr. Matlack is king.—Philadelphia North American.

IN THE LIMELIGHT

CULTURED DR. RITTER



When Dr. Paul Ritter, the minister of Switzerland at Washington, was thrust into sudden prominence by being selected to look after Germany's interests in this country, people began to ask "What about this Doctor Ritter, what manner of man is he?" In Washington where he is best known the reply usually is, "Why, surely you know the Swiss minister. He is quite delightful, so cultivated, and his wife is one of the handsomest and most accomplished women of the diplomatic corps"—but actual facts as to his past career and present interests are hard to come by. He is a doctor of laws and not of medicine (L. D. of Leipzig university); a knowledge of law in general and international law in particular being a necessary qualification for entrance into the diplomatic service of Switzerland.

Doctor Ritter, who was born at Basel in 1865, studied at the University of Paris, at Basel, Goettingen, and Jena before taking his degree at Leipzig, and practiced law in his home town for a short time. His first diplomatic experience was gained in the foreign office at Bern. Then he was sent to Japan, first as consul, later as consul general, when all Switzerland's diplomatic relations with the Flowery Kingdom were in the hands of her consular officers, and later still as envoy extraordinary and minister plenipotentiary, a service of 17 years, during which time he developed a deep affection for and extraordinary comprehension of the Japanese people, of their politics, and literature.

Doctor Ritter came to Washington in 1909. Since then he has managed the diplomatic business of his country with great tact and maintained the pleasantest social relations with his colleagues of the diplomatic corps and with several successive administrations. He is a man of wide culture and a notable linguist, speaking Japanese fluently as well as several European languages.

OF SENATORIAL STOCK



Frederick Hale, the new senator from Maine, is of senatorial stock. His father is ex-Senator Eugene Hale and his mother, Mrs. Mary D. (Chandler) Hale, is the daughter of Senator Chandler, late of Detroit, Mich. Senator Hale's brother, Chandler Hale, married a daughter of Senator Cameron, late of Pennsylvania.

Frederick Hale goes into the United States senate at about the same age as his father, who was replaced five and a half years ago by Charles F. Johnson, Democrat, who now in turn is displaced by the son, after one term.

Frederick Hale was born in Detroit, October 7, 1874, and his earliest days were passed in that city. When he was about twelve years old he was sent abroad and tutored in a French family in Versailles. He gained an intimate knowledge of the French language, which was an asset in the recent campaign. He delivered several speeches in French. He was educated at Groton, where he fitted for Harvard, graduating in 1896. He attended the Columbia Law school and was admitted to the bar in 1899. He was a Roosevelt leader in 1912.

Hale is unmarried, maintains a handsomely appointed house on State street in the exclusive section of Portland, entertains delightfully and is a host whose guests are brought to realize what royal hospitality really is. He is a member of clubs almost without number.

GERMANY'S BOSS

General von Ludendorff, officially chief of staff to Field Marshal von Hindenburg, is virtually dictator of all Germany. Ludendorff is supreme. All the threads, not only of military control, but also of civil administration, food distribution, industry, agriculture, and even foreign relations, all of which are subordinate to military requirements, now run to the country seat of the prince of Pless, where General von Ludendorff sits with Von Hindenburg at imperial headquarters. Nothing is done unless "Ludendorff" is for it.



It was Ludendorff's fiat that organized the universal auxiliary labor service, converted German industry to an unmodified war basis, deported Belgian, Roumanian and Serbian workmen to Germany and tightened the regulations for food distribution. In the final consideration it was Ludendorff's influence that committed Germany to the unrestricted submarine warfare. All these decisions and determinations, of course, are covered by Field Marshal von Hindenburg's name and authority, but he leaves such nonmilitary matters almost exclusively in the hands of Von Ludendorff.

"UNCLE JIMMY'S" FAME



"Uncle Jimmy," otherwise and more formally known as Col. J. F. Edwards, late of the army of the Confederate States of America, is famed in Washington for two reasons. One is that he has been a doorkeeper in the United States senate for 40 years, and still holds the job. The other and more picturesque reason for his fame is that he is the only living man who had the nerve to "cuss out" the late Senator Vest.

Vest was a senator from Missouri in the Confederate congress after the war started, and then joined the Southern army as a private. He was assigned to the troops commanded by Col. J. F. Edwards. In later years when Vest became a United States senator his former commander obtained the place of doorkeeper, but was still Colonel Edwards to the senator. "Uncle Jimmy," as he came to be known, is of a volcanic temperament, and not forgetting that Vest was once his subordinate, used to swear at the senator whenever he felt like it, and he always got by with it, much to the astonishment of his fellow employees. Edwards is a much-liked and privileged character about the senate.