

Fortune for Man Who Can Make Rain

Invention

Many Devices Patented But They Will Not Work

IF you could make rain in any desired amount, to order, you would undoubtedly become, today, the most famous person in the world, besides earning a fabulous fortune.

The present severe drought has brought its usual crop of professional rain makers seeking to swindle the credulous farmer, who in his present desperate straits is willing to take a chance on almost anything that may bring relief to his sun baked, withering crops. No method has yet been devised which will produce rain in a sufficient quantity to make it practicable during a severe drought such as we are now having, but unfortunately not all farmers know this.

Cartridges and Torpedoes

Rain makers have been careful to protect their methods and devices by obtaining patents from the government. Daniel Ruggles obtained a patent in 1880 for making rain by sending up one or more balloons carrying explosive cartridges and torpedoes which are detonated by an electric wire trailing on the ground. His theory is that the explosion produces a concussive force which condenses the moisture in the air thus producing rain. There is actually no scientific basis in this theory. During the Great War immense quantities of explosives were detonated but no appreciable quantity of rain was caused by those explosions.

Another patent issued in 1891 to Louis Gathmann first forms rain clouds by spraying liquid carbon dioxide gas high up in the air. The evaporation of the carbon dioxide cools the air condensing the moisture it contains, forming a cloud and finally rain. This method appears to be very plausible at first, but in order to cool large quantities of air so as to produce any appreciable condensation of moisture, extremely large quantities of liquid carbon dioxide would have to be used, the cost of which would be too prohibitive. The rain thus produced would not save enough of the crops to pay for the expense involved.

Put Electricity in Air

Several patents have also been granted for balloons equipped with

sharp metallic points in order to discharge the electricity in the air. John Potts, for instance, obtained a patent in 1913 for a balloon having many sharp spurs on its surface. These points are attached to a wire which is grounded. Another patent granted in 1918 uses a similar device. The inventor explains his theory in the following language:

"The atmosphere is known to contain transient zones of electrified air, and it is also known that aqueous particles constituting clouds are invariably charged with electricity, and that the potential distribution throughout such atmospheric zones and clouds is usually uneven. It is also known that the sign and the potential gradient of regions of the atmosphere are varied or altered by these charged zones of clouds.

"I have discovered that if the potential gradient between earth and such atmospheric zones and clouds is diminished or canceled, particularly at times preceding rainfall, or at times when rain is falling, rainfall is procured or stimulated."

Unfortunately although this theory sounds good it does not work out in practice to produce rain.

Numerous devices such as those we have just described are at present being offered to hundreds of farmers to break the drought. The officials of the United States Weather Bureau brand these devices as pure fakes, and the men who are enriching them-

selves at the farmer's misfortune are nothing but scoundrels.

The professional rain maker is a shrewd salesman who knows how to play on the credulity of human nature. He may, for example, enter into a contract with a farmer promising him rain in a week or ten days for which he is to receive five thousand dollars. The rain maker will then set up some formidable looking apparatus which discharges electric sparks or chemicals in the air. He may explode shells containing gunpowder or nitroglycerine. Under ordinary circumstances rain is bound to come sooner or later, and the rain maker can very well gamble on this chance, for he has nothing to lose. As soon as rain comes he credits the performance to himself and, of course, demands the sum specified in his contract.

Still at Mercy of Elements

Science has not yet discovered all the facts of meteorology. We are still at the mercy of the elements, just as our ancestors were, thousands of years ago, except that we have provided ourselves with better shelter. Until our knowledge of weather is more complete than it is at present, it will be almost impossible to control or to make rain when we need it, because we do not understand all the underlying causes. Until then, farmers can do nothing in times of drought, in spite of the claims of inventors or professional rain makers.

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Cottonseed, Cheap Pellagra Preventive

Public Health

COTTONSEED meal has been hailed as the cheapest source of the pellagra-preventive vitamin yet found in a statement by Dr. W. W. Skinner of the U. S. Bureau of Chemistry and Soils.

Besides being rich in the anti-pellagra vitamin G, cottonseed meal was found to be an important carrier of the anti-beriberi vitamin B.

Yeast is considered the richest source of both these vitamins, but yeast is costly. Now it may be possible to use the less expensive cottonseed meal in treating pellagra. This would be of great benefit to pellagra

sufferers who have generally acquired the disease from improper diet due to poverty.

Pellagra is known as the hard-times disease throughout the South where it is prevalent. Yeast, and fresh milk, fish, lean meat and eggs, which all contain the pellagra-preventive vitamin, are costly and absent from the diet of the poorer classes, particularly during hard times.

Mr. Henry Stevens directed the studies which were carried on jointly by the Department of Agriculture and the National Cottonseed Products Association.

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