UNITED STATES PATENT OFFICE.

LOUIS GATHMANN, OF CHICAGO, ILLINOIS.

METHOD OF PRODUCING RAIN-FALL.

SPECIFICATION forming part of Letters Patent No. 462,795, dated November 10, 1891.

Application filed July 16, 1891. Serial No. 399,705. (No specimens.)

To all whom it may concern:

Be it known that I, LOUIS GATHMANN, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Methods of Producing Rain-Fall, of which the following is a specification.

My invention relates to a method of producing a rain-fall; and it consists in the several steps hereinafter fully described and specifically claimed, which, when combined, serve to accomplish the above-named result.

My method is designed to produce a condensation in the upper regions of the atmospheric air in such quantities that a cloud will be formed from which a rain-fall will be precipitated. Various means could be employed for accomplishing this object—namely, a condensation of the moisture suspended in the atmosphere; but the means herein named is thought to be the most successful—namely, to suddenly chill the atmosphere by rapid evaporation—and it is also advisable to produce a heavy concussion in connection with the cooling in order to set the different air-currents in motion. It is obvious that sudden and rapid evaporation in the upper regions of the atmosphere could be accomplished in various ways by the evaporation of various highly-compressed gases; but the evaporation consequent upon the release of liquefied carbonic-acid gas is thought to be the most efficient.

In accordance, therefore, with my invention liquefied carbonic-acid gas is liberated in the upper regions of the atmosphere and will of course instantly evaporate and spread out in a sheet of vapor of an extremely low temperature and produce a cloud. The surrounding atmosphere will be chilled by its proximity to the cold vapor and the moisture in the atmosphere will be condensed thereby. The condensation takes place in large quantities and with great rapidity, so that a cloud is formed that will precipitate a rain-fall upon the earth.

The liquefied carbonic-acid gas can be confined in a suitable shell or casing, said casing also to contain an explosive—gunpowder, dynamite, &c.—which is thrown or shot into the upper regions of the atmosphere and there exploded by a time-fuse. A balloon, moreover, could be employed to elevate the shell or casing containing the liquefied carbonic-acid gas, and the explosion to liberate the gas could be made by an electric current controlled by persons upon the earth.

It is plainly obvious that various means for elevating and liberating a highly-compressed gas could be employed and that various other steps in the method could be varied without departing from my invention as hereinafter claimed.

I claim as my invention—

1. The herein-described method of producing rain-fall, which consists in condensing the moisture in the atmosphere by suddenly lowering the temperature of the same by the rapid evaporation of highly-compressed gas.

2. The herein-described method of producing rain-fall, which consists in condensing the moisture in the atmosphere by suddenly lowering the temperature of the same by the rapid evaporation of a highly-compressed gas and causing a concussion.

3. The herein-described method of producing rain-fall, which consists in elevating a highly-compressed gas into the upper regions of the atmosphere and liberating said gas in order to lower the temperature of the atmosphere.

4. The herein-described method of producing rain-fall, which consists in elevating a highly-compressed gas into the upper regions of the atmosphere and liberating said gas by a concussion.

5. The herein-described method of producing rain-fall, consisting in elevating confined liquefied carbonic-acid gas into the upper regions of the atmosphere and liberating said liquefied carbonic-acid gas by the concussion caused by an explosion.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS GATHMANN.

Witnesses:
WM. H. LOTZ,
HARRY C. KENNEDY.