

H. E. FRY.
TREATMENT OF SEED GRAIN.
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1,155,560.

Patented Oct. 5, 1915.

Fig. 1.

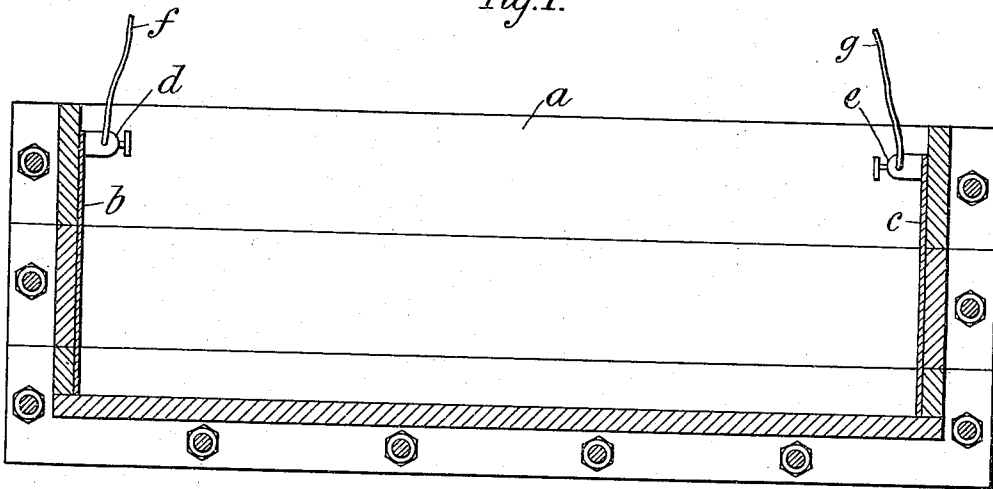
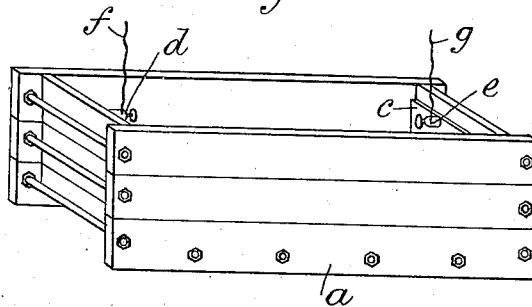


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE

HENRY ERNEST FRY, OF DORCHESTER, ENGLAND, ASSIGNOR TO CHARLES EDWARD DE WOLF, OF LONDON, ENGLAND.

TREATMENT OF SEED-GRAIN.

1,155,560.

Specification of Letters Patent.

Patented Oct. 5, 1915.

Application filed March 27, 1915. Serial No. 17,511.

To all whom it may concern:

Be it known that I, HENRY ERNEST FRY, a subject of the King of Great Britain, residing at Godmanstone, Dorchester, Dorset, England, have invented new and useful Improvements in the Treatment of Seed-Grain, of which the following is a specification.

In the specification No. 1,106,039 of my former patent I have described a process of treatment of grain consisting in placing the grain in a solution of a manure or nitric acid and passing an electric current through the solution and then drying the grain. I have now made various improvements in the details of the said process, and a modification of the same in which the final drying is replaced by a treatment which more effectually prevents the grain from sticking together.

According to this invention in place of the current before stated I use when treating four bushels of grain at one time a current of 200 volts and $1\frac{1}{4}$ amperes, and if a larger number of bushels is treated the current is to be increased but the voltage is not to exceed 200. The temperature of the solution of manure should not exceed 80° F. The term "manure" includes all substances which are usually known as manures either chemical or organic and chlorid of sodium, sugar, ferrous or ferric salts and zinc salts.

The annexed drawing shows a tank in which I prefer to conduct the process.

Figure 1 is a longitudinal section and Fig. 2 a perspective view of the tank.

The grain is treated in the rectangular wooden tank *a* fitted at each end with iron electrodes *b* and *c* which consist of sheets of iron one-eighth of an inch thick. The iron electrodes cover the ends of the tank completely from side to side to within two inches of the top.

d and *e* are terminals fixed to the electrodes *b* and *c* respectively.

f and *g* are wires leading to the source of electricity.

The grain under treatment should be placed in a thin layer, not exceeding seven inches in thickness, at the bottom of the tank, and be well covered with the solution, about six gallons of which are sufficient for

one bushel of grain. After the treatment of the grain is completed the solution is drawn off from the tank, and the grain is removed and spread in a thin layer on a suitable floor, where it is sprayed with a very fine spray of mineral oil such as petroleum or benzolin and turned over several times during the operation until the whole of it is coated therewith.

About one quart of petroleum or benzolin will be sufficient for one bushel of grain. After twenty or twenty four hours the grain will be in a condition for sowing by the usual drilling machines.

What I claim is:—

1. A process of treating grain consisting in placing the grain in a solution of manure, passing an electric current through the solution and then spraying the treated grain with mineral oil.

2. A process of treating grain consisting in placing the grain in a solution of nitric acid, passing an electric current through the solution and then spraying the treated grain with mineral oil.

3. A process of treating grain consisting in placing the grain in a solution of manure, heating the solution to 80° F. and passing an electric current through the solution.

4. A process of treating grain consisting in placing the grain in a solution of nitric acid, heating the solution to 80° F. and passing an electric current through the solution.

5. A process of treating grain consisting in placing the grain in a solution of manure, heating the solution to 80° F. passing an electric current through the solution and then spraying the treated grain with mineral oil.

6. A process of treating grain consisting in placing the grain in a solution of nitric acid, heating the solution to 80° F. passing an electric current through the solution and then spraying the treated grain with mineral oil.

HENRY ERNEST FRY.

Witnesses:

W. R. POPE,
B. R. LEGG.