

D. M. JACKSON & L. FLEISCHBEIN.
SAND DRIER.

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948,330.

Patented Feb. 8, 1910.

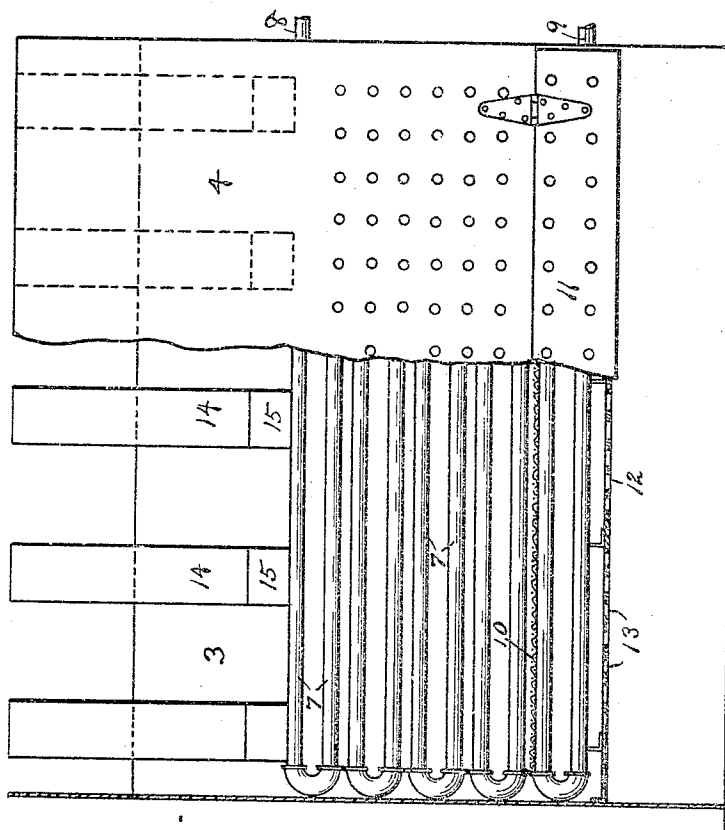


Fig. 1 -

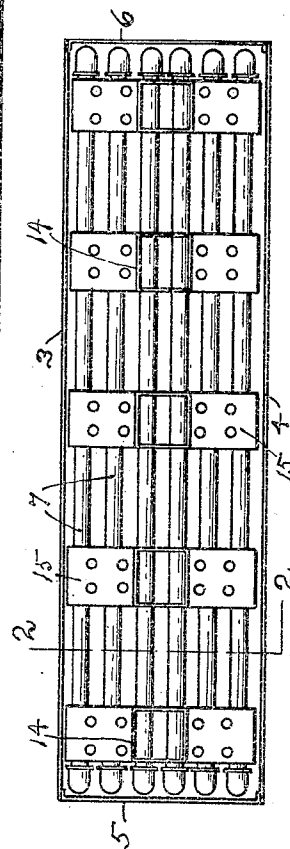


Fig. 3 -

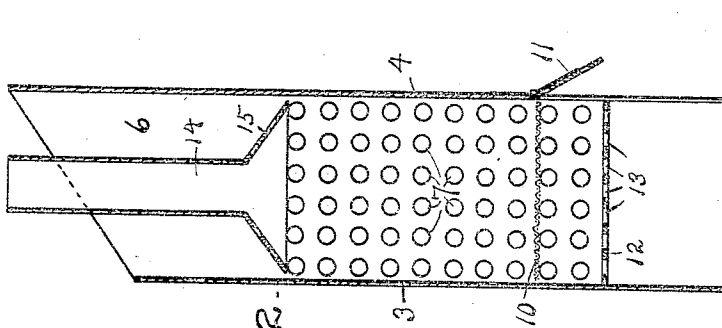


Fig. 2 -

Witnesses:

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UNITED STATES PATENT OFFICE.

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SAND-DRIER.

948,330.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed September 3, 1909. Serial No. 516,014.

To all whom it may concern:

Be it known that we, DAVID M. JACKSON and LOUIS FLEISCHBEIN, citizens of the United States, residents of Bloomington, in the county of McLean and State of Illinois, have invented a new and useful Sand-Drier, of which the following is a specification.

This invention relates to means for drying sand and any other granular substances which are not themselves affected by heat, and the object of this invention is to provide a drying device which shall have great capacity.

In the accompanying drawings, Figure 1 is an elevation of the improved drier with a portion of one wall broken away. Fig. 2 is a vertical cross section on the line 2—2 of Fig. 3. Fig. 3 is a plan of the drier.

Similar reference characters refer to like parts throughout the several views.

The shell of the drier is built up of the side walls 3 and 4, the wall 4 being preferably the higher, and the end walls 5 and 6. Within the shell is a coil of pipes 7 which have extensions 8 and 9 projecting through the end wall 6, by means of which the coil is connected to a steam supply.

A screen 10 extends across above some of the lower pipes and permits only the thoroughly dried sand to fall through, and also stops all gravel and other impurities. The door 11 on the side 4 may be raised to permit the removal of the screen. The pipes below the screen insure the lowest layer of sand in the drier being kept hot.

A perforated bottom 12 supports the coil and also stiffens the shell. Its perforations 13 are so large that the dried sand freely falls through the same. These perforations also permit a free flow of air through the drier. The wall 4 and door 11 are also perforated to permit the entrance of air.

Above the coil are mounted a series of flues 14 having spreading hoods 15, through which the steam from the moist sand may escape. The sand is shoveled in over the

side 3 and falls between the flues 14, thus leaving openings at intervals for the escape of the steam. The sand that falls on the hoods 15 falls through the holes in the same. As the lower layer of sand becomes heated, the grains fall down between the pipes, through the screen 10 to the ground. As the side 4 does not extend below the bottom 12, the dried sand can be easily removed.

It will be understood that this device will operate equally well with any other granular material which does not melt when heated, but its principal value is to rapidly dry sand for building purposes, and for use with air-brakes.

Having now explained our construction, what we claim as our invention and desire to secure by Letters Patent is:—

1. In a drier, the combination of a shell comprising sides and ends, one of the sides being perforated and extending upward higher than the other, a perforated bottom secured within the shell a distance above the lower edges of the ends, a screen positioned a distance above the bottom, and heating pipes within the shell above and below the screen.

2. In a drier, the combination of a shell comprising sides of substantially the same width, and ends, one of the sides being perforated and extending upward higher than the other, a perforated bottom secured within the shell at the lower edge of the perforated side, a screen positioned a distance above the bottom, heating pipes within the shell above and below the screen, and flues above the pipes to convey moisture from the drier.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

DAVID M. JACKSON.
LOUIS FLEISCHBEIN.

Witnesses:

GEORGE F. JORDAN,
CHARLES L. FLEISCHBEIN.