

Nov. 8, 1927.

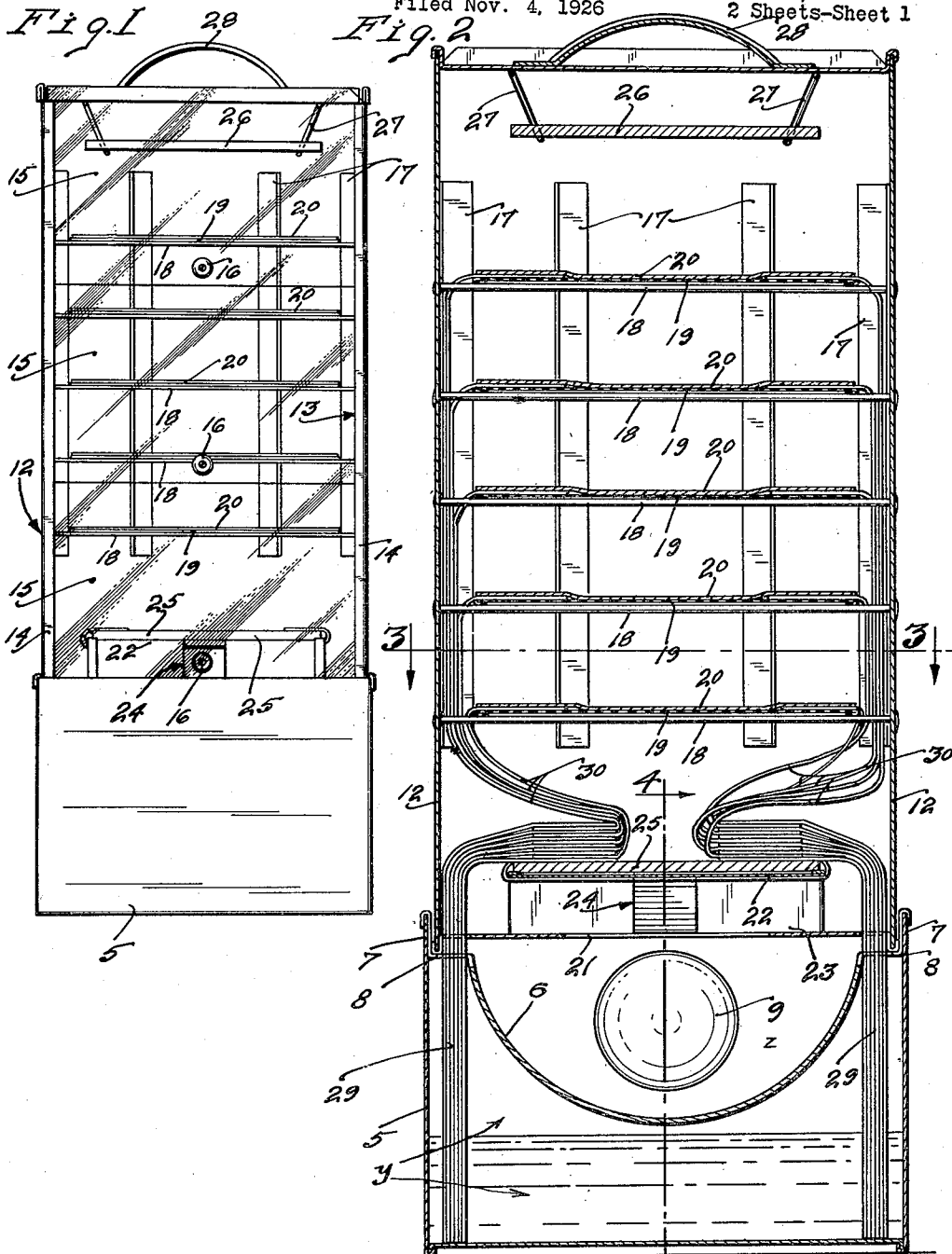
M. ISAACS

1,648,309

SEED GERMINATOR

Filed Nov. 4, 1926

2 Sheets-Sheet 1



4 - Inventor
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By his Attorneys
Meredith and Wilson

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2 Sheets-Sheet 2

Fig. 3

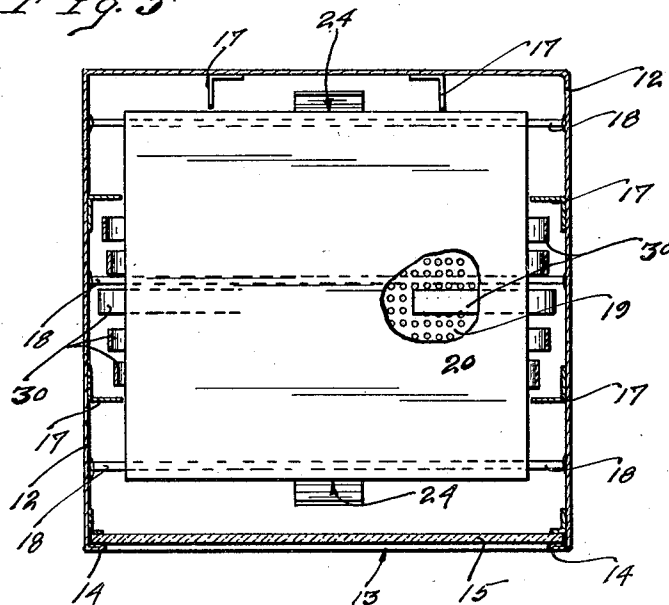
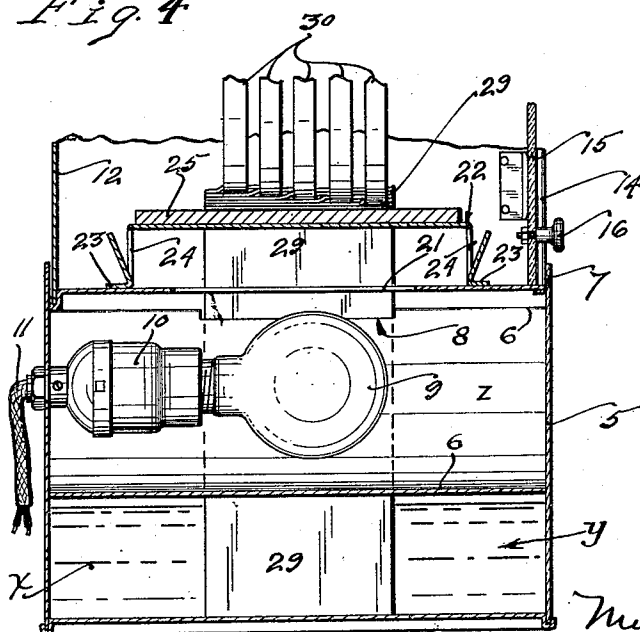


Fig. 4



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UNITED STATES PATENT OFFICE.

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SEED GERMINATOR.

Application filed November 4, 1926. Serial No. 146,138.

My invention has for its object to provide a simple and highly efficient germinator for testing seeds as to their rapidity and perfection of germination, and to such ends, it consists of the novel devices, combinations of devices and arrangement of parts hereinafter described and defined in the claims.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings:

Fig. 1 is a front elevation of the improved germinator;

Fig. 2 is a central vertical section on an enlarged scale;

Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 2, with some parts broken away; and

Fig. 4 is a view principally in section taken on the line 4—4 of Fig. 2.

The numeral 5 indicates a box-like base having an open top and a horizontal partition 6 located slightly below the upper edge of said base to afford a capping flange 7. A pair of passages 8 are formed in the partition 6, relatively close to the sides of the base 5, for a purpose that will presently appear. Said partition, between the passages 8, is made concavo-convex and separates the base 5 into a lower water receptacle γ and an upper heating chamber z . This heating chamber z is in the form of a depression in the top of the base 5. Artificial heat may be supplied to the heating chamber z by an electric light bulb 9 mounted in a socket 10 secured in the rear wall of said chamber, and supporting said light bulb in a horizontal position. A duplex lamp cord 11 is attached to the terminals in the socket 10 and, in actual usage, will be provided with a plug for attaching the same to an outlet opening.

A rectangular casing 12 is removably supported on the partition 6 within the capping flange 7. The entire front of the casing 12 affords a window opening 13, at the sides of which are vertical guides 14 in which are mounted a plurality of glass panes 15 loosely supported, the one upon the other, and having at their lower edge portions knobs 16 by which said panes may be raised or lowered.

On the back and side inner walls of the casing 12 are pairs of laterally spaced upright webs 17, and secured to the side walls of said casing are shelf-supporting rods 18.

Perforated shelves 19 are removably sup-

ported on the rods 18, and removably supported on each shelf is an absorbent seed bed 20, which may be a blotter or other suitable material. In the bottom of the casing 12 is a central hot air passage 21, which leads from the heating chamber z to the interior of the casing 12. A rectangular heat spreader 22 is located over and spaced above the passage 21 with its marginal edge portion spaced from the four walls of the casing 12. The front and rear edge portions of the spreader 22 are bent laterally downward and secured to the bottom of the casing 12 to afford supporting legs 23 having hot air passages 24. A sheet of asbestos 25 is secured on top of the spreader 22. It will be noted that the spreader 22 is so arranged that hot air from the chamber z will pass thereunder and into the casing 12 at the four sides thereof and then rise between the several pairs of ribs 17, so that the heat is evenly distributed in the casing 12. A sheet of asbestos 26 or other suitable insulating material is suspended from the top of the casing 12 by rods 27. On top of the casing 12 is a handle 28 by which the germinator may be carried.

A plurality of absorbent sheets 29, such as blotters, have their lower end portions inserted through the passages 8 and into the water x and supported from the bottom of the water receptacle γ . The upper end portions of the two series of sheets 29 are turned toward each other over the spreader 22.

Water is conveyed from the water receptacle γ to each seed bed 20 by two wicks 30 of cotton or any other suitable material. The lower end portions of the wicks 30 are laid between the upper end portions of the several absorbent sheets 29 and their upper end portions are laid between the shelves 19 and seed beds 20. It will be noted that the two wicks for each seed bed 20 extend under the same from opposite edges thereof, so as to supply said seed bed with an even distribution of water. It is, of course, understood that in some instances only a single wick may be used for each seed bed 20 or, if necessary, more than two may be used. Any desired number of seed beds may be used, depending on the capacity of the germinator.

The purpose of making the glass closure for the window opening in sections is to permit any one of said sections to be raised for the removal of the adjacent shelf and seed bed thereon. Of course, when lifting the lower or one of the intermediate glass panes,

the glass panes resting thereon will also be lifted therewith. The perforated shelves 19 permit the passage of heat therethrough so that the seed beds are evenly heated from their under sides throughout their entire area.

In place of heating the germinator by means of the electric light bulb 9 or any other heating element placed on the heating chamber 2, said germinator may be placed on a radiator or over a hot air register and thus heated, or the germinator may be placed where the sun's rays will strike the glass panes 15 and thus heat the germinator. Of course, the germination of seeds on the seed beds may be hastened or retarded by means of the heat applied to the germinator.

What I claim is:

1. A seed germinator comprising a water receptacle, a casing over the water receptacle, a shelf in the casing spaced from the walls

thereof, an absorbent seed bed on the shelf, a wick leading from the water receptacle to the seed bed and suspended between the shelf and walls of the casing, and a heating chamber between the water receptacle and casing.

2. A seed germinator comprising a water receptacle, a casing above the water receptacle, a plurality of vertically spaced shelves in the casing spaced from the walls thereof, an absorbent seed bed on each shelf, and a wick leading from the water receptacle to each shelf and suspended between the shelves and walls of the casing.

3. In a seed germinator, an open top base having a water receptacle, a partition in the base closing the water receptacle and having a depression forming a heating chamber in the base above the water receptacle.

In testimony whereof I affix my signature.

MARK ISAACS.