

I. Kinsey
Paper Making Mach.
Nº 15,852. Patented Oct. 7, 1856.

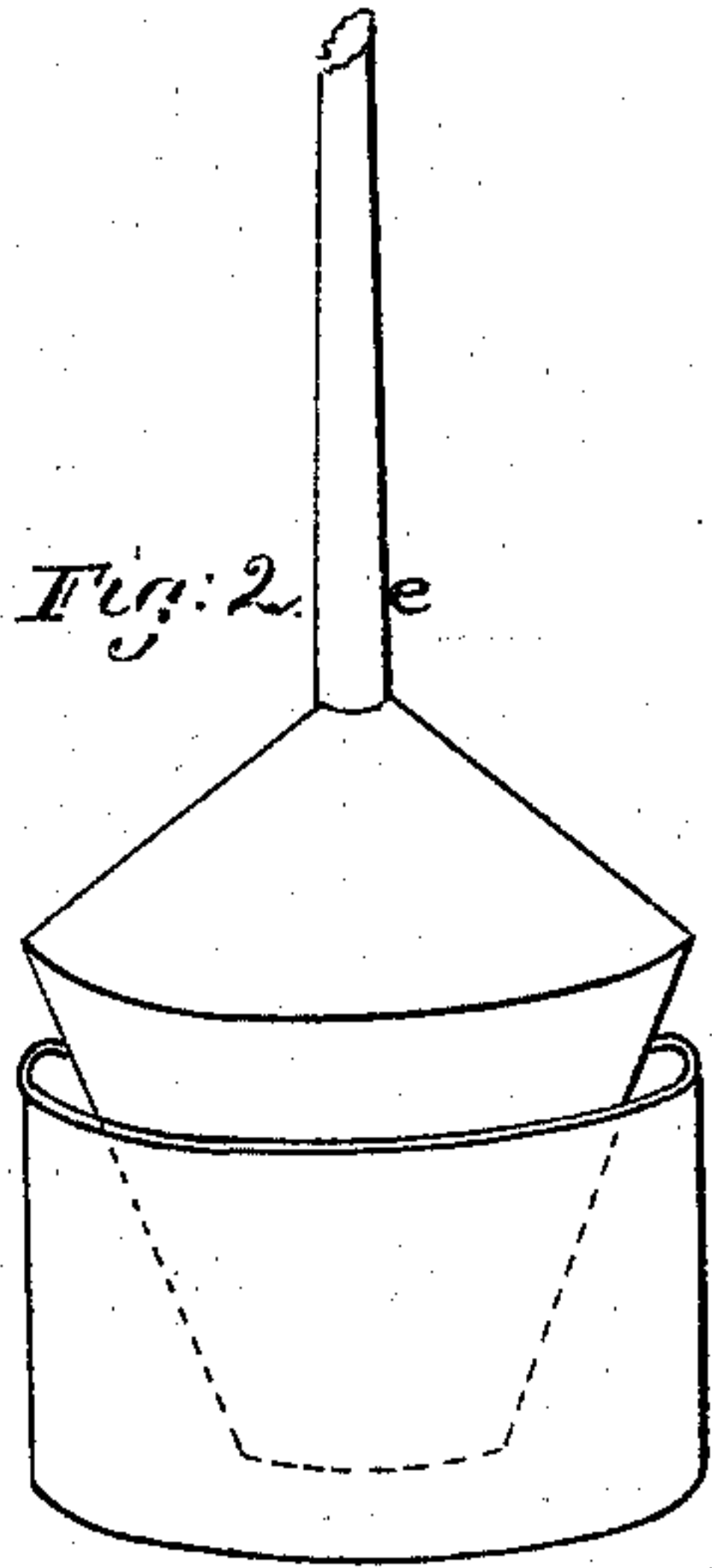
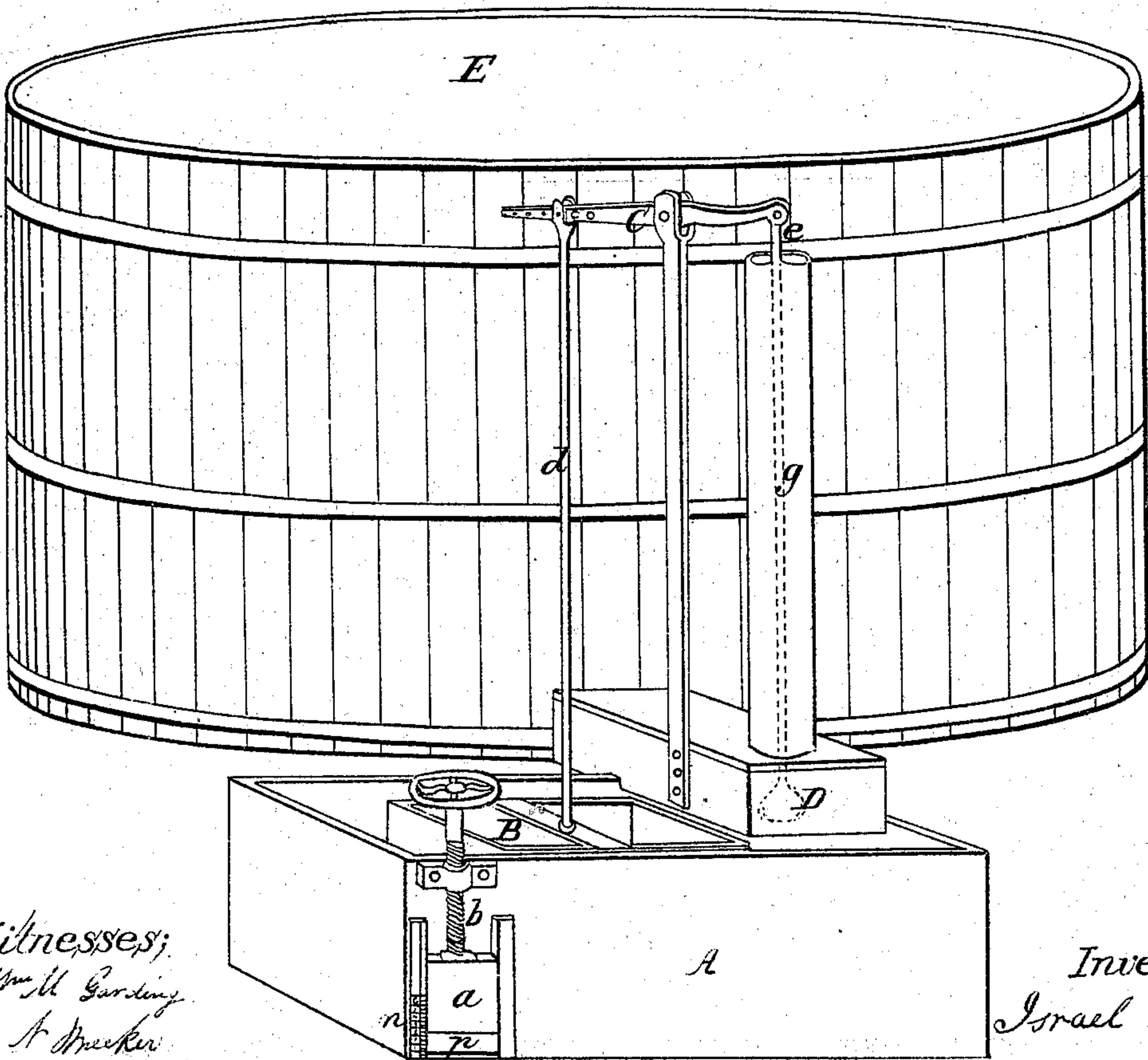


Fig. 1.



Witnesses;
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UNITED STATES PATENT OFFICE.

ISRAEL KINSEY, OF HOHOKUS, NEW JERSEY.

FEEDING PULP TO PAPER-MAKING MACHINES.

Specification of Letters Patent No. 15,852, dated October 7, 1856.

To all whom it may concern:

Be it known that I, ISRAEL KINSEY, of Hohokus, in the county of Bergen, State of New Jersey, have invented a new and useful
5 Mode of Regulating the Feeding of Pulp to Paper-Machines; and I do hereby declare the following to be full, clear, and exact description thereof, reference being had to the drawings which accompany this specification and make part thereof.

10 The same letters refer to the same parts in the different figures.

Figure 1 is a perspective view of the stuff-chest with the regulator attached to it.
15 Fig. 2 is a perspective view of the valve and valve seat.

A Fig. 1 is an intermediate supply or feeding chest of any convenient dimensions.

20 *a* is a slide operated by the screw *b* to regulate the opening of the discharge aperture at *p*.

n is a scale.

25 B Fig. 1 is a float connected by the rods *d* and *e* and the lever C with a valve formed of a conical plug and a cylinder, as shown in nearly full size at Fig. 2; the cylinder is placed in the receiver D Fig. 1 its top edge being level with the bottom of receiver, the form of the plug causes a great difference
30 in the aperture with a very slight movement of the float.

The pulp passes from the grinder into the vat E, (commonly termed the stuff-chest) in which is a stirring apparatus (technically
35 termed a hog) to equalize the consistency of the pulp; this is in common use in all paper mills, to this stuff chest E an air tight receiver D is attached and has an open connection with the bottom of the stuff chest
40 E, a tube *g* is inserted through the top of the receiver D, through which the valve rod *e* passes to the valve at the bottom, the pulp

of course standing at the same height in *g* as in E.

The feed has hitherto been direct from the 45 vat or pulp chest E and required constant watch and attention to enlarge by hand the aperture of discharge as the decrease of pulp in the chest lessened the hydraulic pressure,—unremitting care alone enabled the 50 operator to produce paper of a tolerable uniformity of the thickness and weight. By the interposition of the supply chest A with the float and valve all the watch, care and trouble are entirely obviated, an equal pres- 55 sure at the discharge aperture *p* is obtained and paper of a uniform thickness and weight can be continuously made with an ease and certainly hitherto unknown.

I propose to use graduated weights in the 60 float as a part of the means of regulating the flow of pulp.

What I claim as new and desire to secure by Letters Patent is:

Regulating the flow of pulp for making 65 paper upon the web or cylinder of the paper machine, by the pressure of the pulp in a box A receiving its supply of pulp from the stuff-chest E through the aperture *f* in the trunk D and discharging it through an ad- 70 adjustable aperture *p*, below the surface of the pulp in the box A; the pressure being regulated and kept uniform by the height of the pulp *h* in the box A, which is adjusted and maintained by means of a valve 75 *e'*, fitting the aperture *f*, operated by a float B substantially as described; the combination of the several parts forming a self-acting regulator for the purpose of making paper of equal thickness.

ISRAEL KINSEY.

Witnesses:

WM. M. GOODING,
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