

(No Model.)

2 Sheets—Sheet 1.

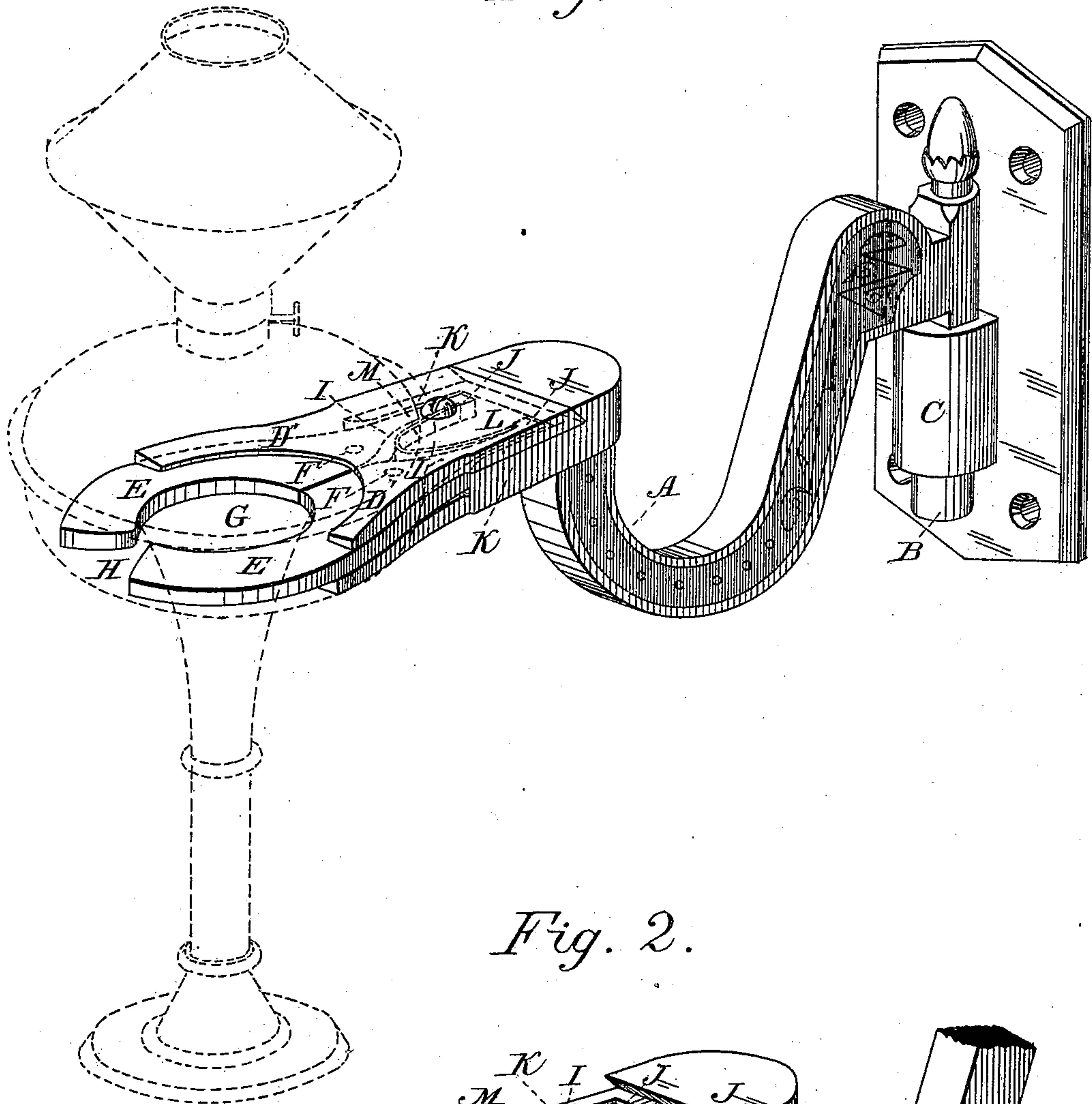
A. THURBER.

LAMP BRACKET.

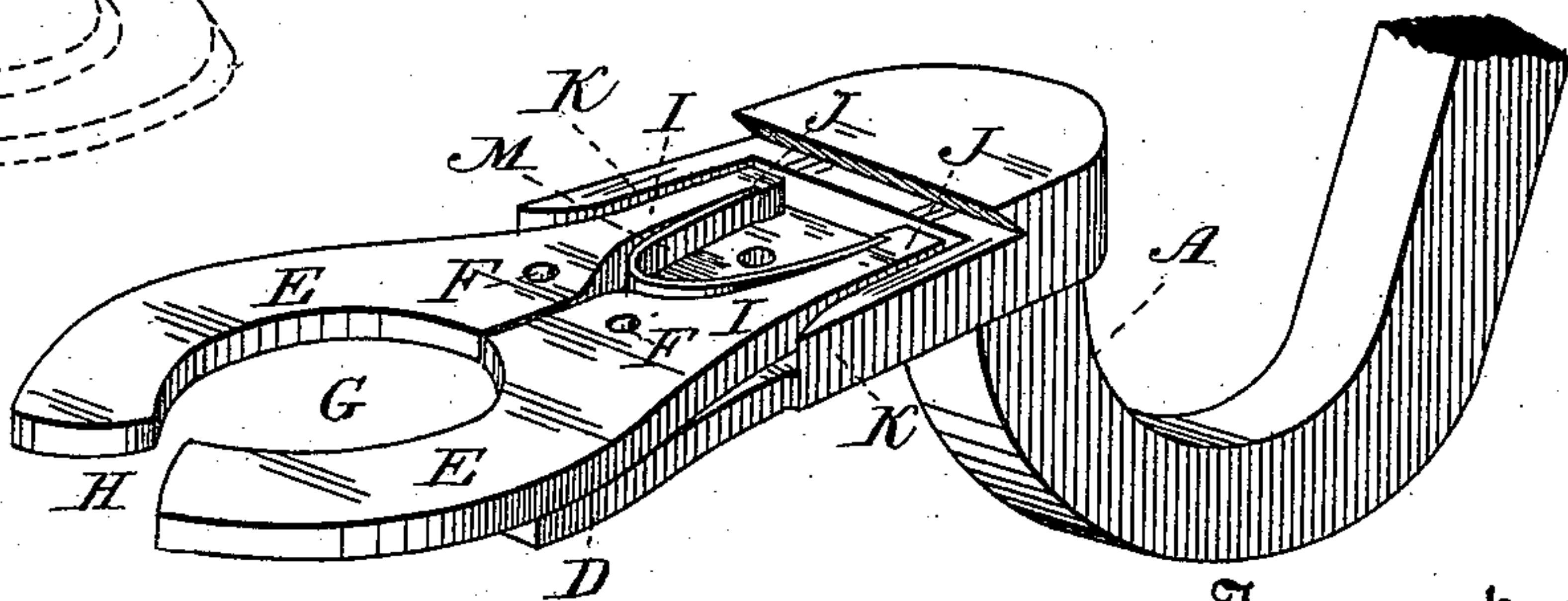
No. 297,317.

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*Fig. 1.*



*Fig. 2.*



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## MACHINE FOR MOLDING GELATINE CAPSULES.

SPECIFICATION forming part of Letters Patent No. 297,318, dated April 22, 1884.

Application filed August 23, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. TUCKER, of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Machines for Molding Gelatine Capsules, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same, in which—

Figure 1 is a front elevation, and Fig. 2 a rear elevation, of a machine embodying my invention, and Fig. 3 is a vertical section of the same on line *x x*, Fig. 2.

My invention relates to a machine for lowering gelatine-capsule molds into the gelatine solution and automatically raising them therefrom; and it consists in the devices and combinations of devices herein described and claimed.

A is a plate or frame upon which the working parts of the machine are mounted.

B is a plate or bar constructed and arranged to slide vertically on the face of A in ways *a*.

C is a bracket-head secured to the lower end of the bar B, and constructed to receive and hold the mold-plate, in which are secured the mold-pins intended to be dipped into the gelatine solution in the process of molding capsules. It consists, preferably, of a flat bar or plate, the ends of which are turned down at right angles to the body of the bar, the extremities or edges of this turned portion being bent inward toward each other, forming flanges or ribs, on which the edges of the mold-plate may rest.

D is the mold-plate resting on the said flanges.

E is a driving-shaft journaled on the plate A, and F a driving-pulley on said shaft, that receives motion through a belt from a suitable motor. An opening, *c*, is made in the plate A, to allow the pulley to project through the plate, in order that the shaft E may be placed close to the face of the said plate. On this shaft is also a gear-pinion, G, with a smooth-faced hub, *d*, projecting therefrom on one side of the toothed portion. An opening, *e*, is also made in the plate A for this pinion. In the sliding plate B is made a long opening, *f*, in which is placed a plate, H, which carries on its rear face a rack, I, that may mesh with the

pinion G. This rack-carrying plate is hinged at the upper end to the plate B, as seen at *g*, and a spring, J, made fast at its upper end to the plate B, its lower end pressing against the plate H, acts to press with a yielding pressure the rack I into engagement with the pinion G.

Near the lower end of the rack plate H is a lug, *h*, so formed and arranged, as shown, that when the plate B is carried up into the position shown in Fig. 3 it will ride onto the hub *d* and lift the rack I out of engagement with the pinion G.

K is a bolt or pin mounted to slide on a bracket, *i*, secured to the plate B near its lower end, and *j* is a spring which acts to throw said bolt inward toward the plate H. Upon the latter is an ear, *k*, having in it a hole, *k'*, the ear being so placed that when the lower end of H is swung outward, as seen in Fig. 3, the bolt will enter the hole in the ear and hold the rack out of engagement with the pinion G. When the bolt is pulled back against the stress of the spring *j*, as it may be, the plate H is released, and the spring J forces it back and carries the rack I into engagement with the said pinion. Power is applied to the shaft E to rotate the said pinion in the direction to carry the plate B upward, and the shaft is to be kept continuously rotating. A rope or chain, L, attached at one end to the upper end of the plate B, is carried over to a loose pulley, (not shown,) and has attached at the other end a weight which balances the said plate B and attachments.

The operation of the machine is as follows: The plate B being raised to its upward limit of movement, as seen in Figs. 1 and 2, the rack being at the same time locked out of engagement with the pinion G, the mold-plate D is placed in the bracket-head C, as shown. The operator then by hand pulls the plate B downward, carrying the molds into the gelatine solution in a vessel underneath, and then throws back the bolt K, thus unlocking said plate and effecting engagement of the rack with the rotating pinion, by which the plate B is run up, carrying the molds, until the lug *h* rides onto the hub *d*, and thereby lifts the rack out of engagement with the pinion, in which position the rack will be locked by the bolt K. The mold-plate C may then be re-

