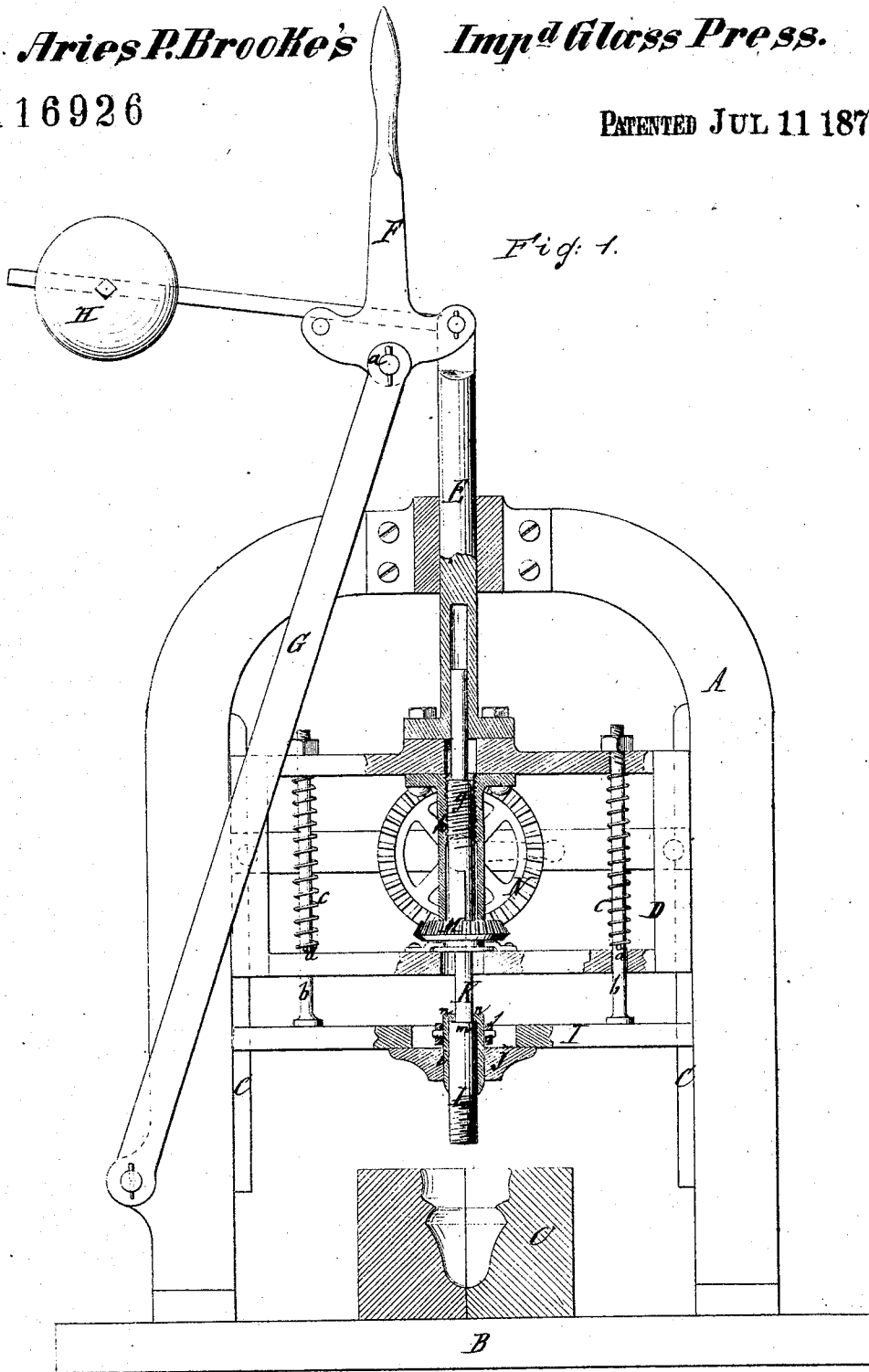


Aries P. Brooke's

Imp'd Glass Press.

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PATENTED JUL 11 1871



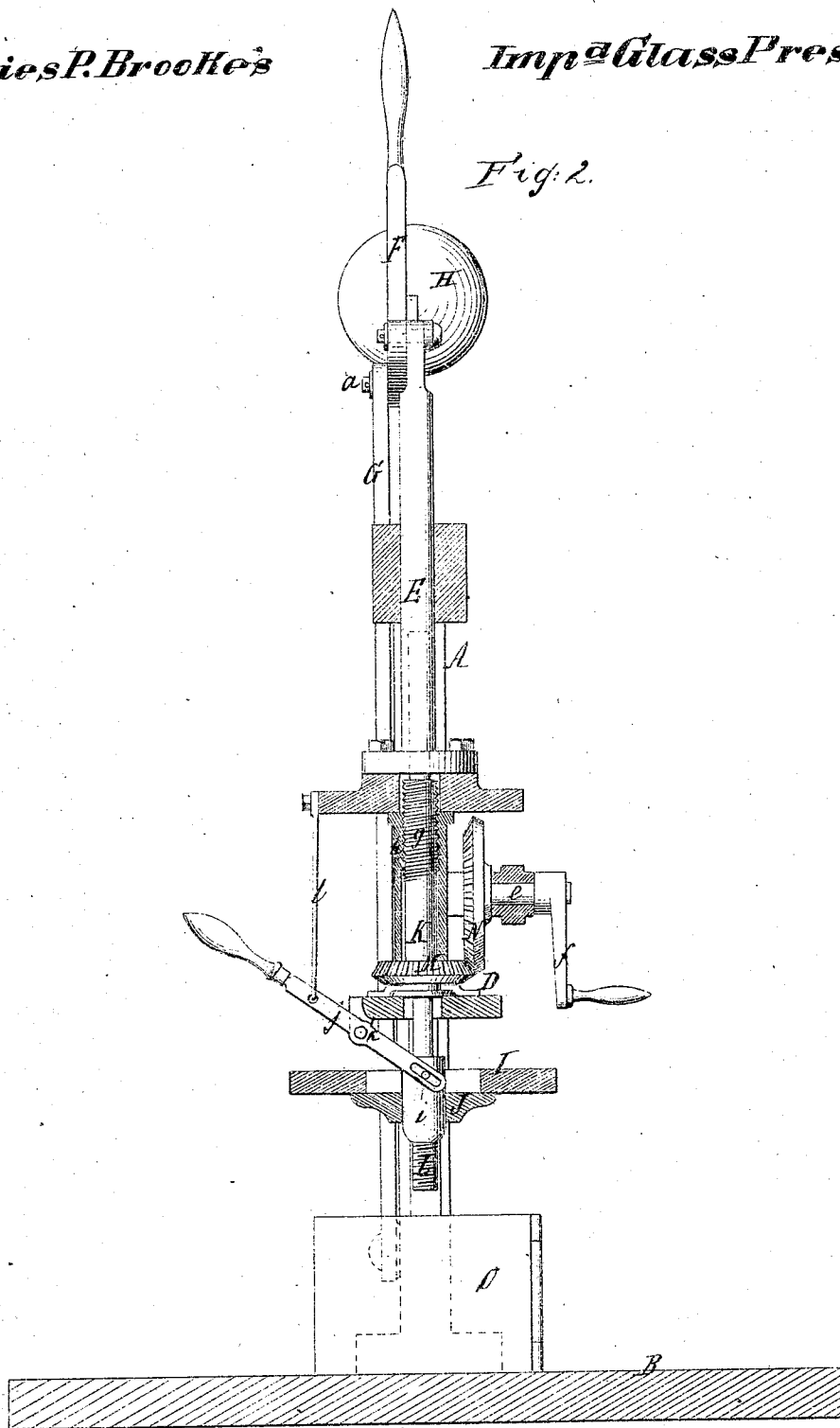
Witnesses
of Transfers.
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Aries P. Brooke's

Imp'd Glass Press.

Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

ARIES P. BROOKE, OF NEW YORK, N. Y.

IMPROVEMENT IN GLASS-PRESSES.

Specification forming part of Letters Patent No. 116,926, dated July 11, 1871.

To all whom it may concern:

Be it known that I, ARIES P. BROOKE, of the city, county, and State of New York, have invented a new and Improved Glass-Press; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which drawing—

Figure 1 represents a sectional front view of this invention. Fig. 2 is a transverse section of the same.

Similar letters indicate corresponding parts.

This invention relates to a glass-press intended particularly for making screw-insulators for telegraph-wires or other articles of glass with internal screw-thread. The screw-plunger used in this press is attached to a spindle so constructed that it allows of pressing the screw-plunger into the molten glass, and then turning the same out of the screw-thread after the glass has set, during which latter motion the spindle must be capable of being turned and of moving endwise as it is pushed out by the screw-threads of the plunger. The head of the screw-plunger is made detached from the body thereof, so that it can be raised clean out of the mold before the plunger is screwed out, and thereby the articles produced by this press are prevented from cracking at the top.

In the drawing, A designates a yoke which is secured to a base or bed-plate, B, and to the sides of which are attached guides C, on which moves a frame, D. This frame is firmly secured to a rod, E, which extends up through a suitable guide-hole in the yoke A, and is connected to a hand-lever, F, which serves to depress the rod E and frame D. The hand-lever F has its fulcrum on a pivot, *a*, secured in the top end of a link, G, which is pivoted to the bottom part of the yoke A, and a balance-weight H serves to carry the rod E and frame D back to their original position whenever the hand-lever is released. From the frame D is suspended a bar, I, which also slides up and down on the guides C, and which is connected to the frame by rods *b*. Round these rods are wound springs *c*, the bottom ends of which bear against pins *d* passed transversely through the rods *c*, so that the bar I is rendered yielding in regard to the frame D. To said bar is secured

the follower J, which serves to prevent the top edge of the insulator or other article to be pressed from getting rugged or uneven. The slide-rod E is bored out to receive the upper smooth end of a spindle, K, to the bottom end of which is secured the screw-plunger L. On said spindle is mounted a bevel-pinion, M, connected to the spindle by a feather-key, so that by turning the pinion the spindle is compelled to rotate without being prevented from moving endwise, the pinion being held in position by lips catching in an annular groove in its hoop or by any other suitable means. Motion is imparted to said pinion by a bevel-wheel, N, mounted on a shaft, *e*, which has its bearing in a bridge attached to the frame D, and which can be revolved by means of a hand-crank, *f*. If the mold O is filled with molten glass, and the rod E, together with the frame D, is depressed, the screw-plunger enters into the molten glass, and as soon as the glass has set a revolving motion is imparted to the spindle K, and thereby the screw-plunger is made to turn out of the screw-thread formed in the glass. It is obvious that the mechanism for depressing and for turning the spindle K can be modified in various ways, and I do not wish to confine myself to the precise devices shown. If the upward motion of the rod and plunger, while the latter is being turned out of the screw-thread in the glass, should be made dependent solely upon the thread in the glass, the thread would be liable to be injured, and I have therefore provided the spindle E with a screw-thread, *g*, equal in pitch to the thread on the plunger. The screw-thread *g* is fitted into a nut, *h*, secured to the top bar of the frame D, and by turning the spindle K in the proper direction the plunger can be so adjusted that it projects the proper distance through the follower J; and after the plunger has been depressed into the molten glass, and the glass has set sufficiently, the spindle is turned back and the plunger is raised out of the mold by the action of the screw-thread *g*, thus avoiding all danger of injuring the screw-thread in the glass. The head *i* of the screw-plunger L is made detached from the plunger itself, and it is connected to a lever, *j*, (best seen in Fig. 2,) so that the same can be raised out of the glass before a revolving motion is imparted to the spindle and to the plunger. If the head *i* revolve with the plunger the top of the insulator or other article to be pressed is liable to crack;

but by making the head detached all danger of injuring the top of the article to be produced by the revolving motion imparted to the plunger in unscrewing the same from the glass is avoided. The lever *j* has its fulcrum on the pivot *k* secured in lugs attached to the bottom bar of the frame D, and it is held up in the position shown in Fig. 2 by a hook or other catch, *l*, which is pivoted to the top bar of the frame D. By releasing the lever and depressing its outer end the head of the plunger L is made to slide upon the spindle K. The sliding head is prevented from falling too low on the plunger by means of the top *m* of the plunger, which forms a stop, with which the flange *n* of the sliding head *i* comes in contact. The stop for adjusting the lowest position of the head *i* can, if desired, be combined with the lever *j* instead.

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

1. The combination, with the spindle K and screw-plunger L, of a mechanism for pressing said plunger into the molten glass by a direct longitudinal movement of the plunger, and for turning the same out after the glass has set, substantially as set forth.

2. The sliding head *i* on the plunger L, substantially as described.

This specification signed by me this 13th day of May, 1871.

A. P. BROOKE.

Witnesses:

W. HAUFF,
E. F. KASTENHUBER.