H. C. DEEMER & J. W. EUFINGER.

Improvement in Press for Making Glass-Insulators.

No. 131,153. Patented Sep. 10, 1872.

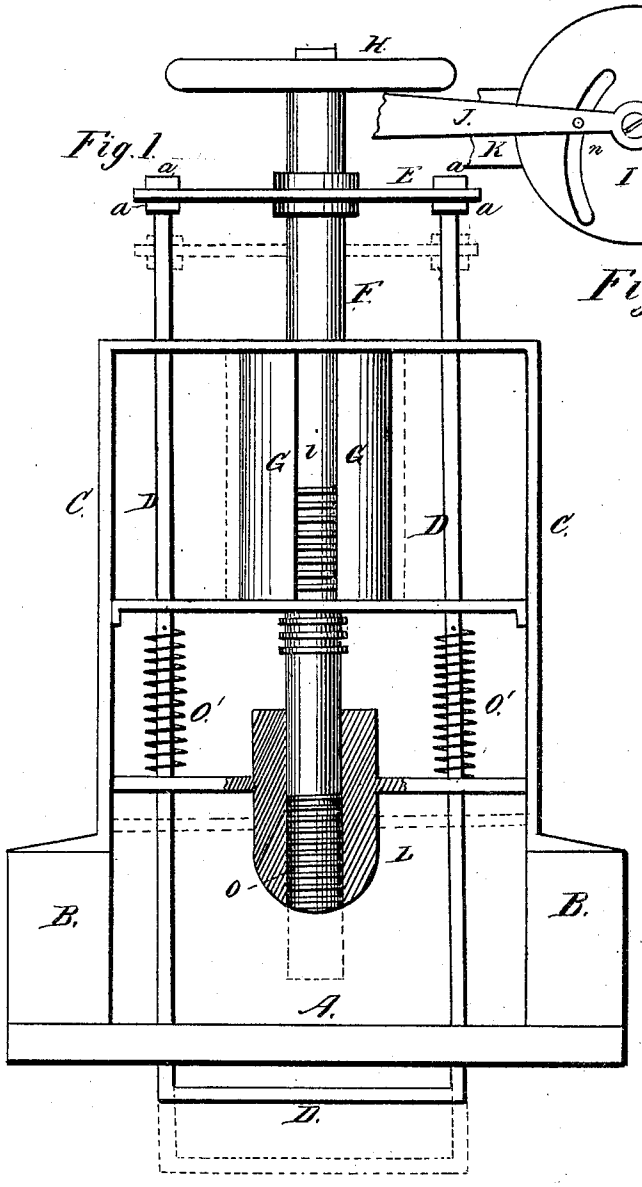

Fig. 1.

Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

HENRY C. DEEMER AND JOSEPH W. EUFINGER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN PRESSES FOR MAKING GLASS INSULATORS.

Specification forming part of Letters Patent No. **131,153**, dated September 10, 1872.

To all whom it may concern:

Be it known that we, HENRY C. DEEMER and JOSEPH WILLIAM EUFINGER, both of the city of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvement in Apparatus for Making Insulators; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The object of our invention is to provide a simple, cheap, and novel apparatus for making insulators for telegraph-lines; and the nature of it consists in the novel and peculiar arrangement, together with the construction of the follower, which is made so as to complete an insulator, on the inside of which is a screw, without removing the mold, so that a most perfect insulator is made by one operation and at one heat.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

Figure I represents a side elevation of our improved apparatus. Fig. II shows the mechanism by which a portion of the apparatus is operated.

Letters of like name and kind indicate like parts in each of the figures.

A may represent the foundation upon which our apparatus stands and is operated. Upon this foundation A are blocks B B, on which stand and are secured the uprights or frame C C. These are made of iron of suitable dimensions. D is a loop-rod extending downward underneath the bottom or foundation A. A cross-piece, E, passes over the top of each end of the loop-rod, and secured thereto by means of set-screws *a a a a*. F represents the follower, or a portion of it. Near the center of the follower, or middle of it, is a screw-thread, *i*, which works in a corresponding screw-thread and nut, G, which latter is made in longitudinal sections, so that it may engage and disengage the screw on the follower, as required in operating the machine. At the bottom of this said follower is shown another screw-thread, *o*, which is provided for the purpose of forming a screw-thread upon the inside of the insulator. H is a hand-wheel, located and secured at the top of the follower for the purpose of operating the follower in turning it out of the insulator after the latter has been molded. O′ O′ are spiral springs coiled around the loop-rod D to keep the follower up while the mold is being placed under the follower. I is an eccentric lever, made in a circle, with a straight lever, J, secured to its center, the latter radiating to a sufficient degree to give it the required power to operate it. In the disk I or lever are two eccentric slots, *n n*, through which passes pins which connect with the sections of the screw-nuts G. One of these said pins is secured to the straight lever J. The disk I is pivoted at its center to a cross-bar, K, that is rigidly secured to the frame or uprights B B. L represents the follower, which works up and down on the uprights or frame, which serves the purpose of gibs. That portion of the follower that forms the inner part of the insulator is shown in section so as to show the other part or portion containing the screw.

The operation of our invention is simple, easy, rapid, and perfect, consisting in placing the mold, containing the glass in a plastic state, under the follower, at which time the sections of screw-nuts are engaged with the follower-shaft, when, by means of the hand-wheel, the follower L is forced down into the mold, when, by means of a treadle (which is not shown) passing through the lower or under side of the frame, the follower-shaft is forced down still further into the melted glass, which readily forms around the screw-thread; then, by releasing or disengaging the sections of the screw-nut by means of the hand-wheel, the follower may be turned out and a perfect screw-thread formed on the inside of the insulator, which cannot be done by any other mode heretofore used.

Up to the time of our invention the screw-insulator has been very imperfect—there being great dissimilarity—it requiring two operations to each insulator, the first being to form the first cavity without the screw, and the other to place the mold under another apparatus to form the screw; and while the second operation was being done the first cavity formed invariably gets more or less out of shape. By our invention this difficulty is entirely overcome for the reason that the insulator is

held in the mold until it is finished, so that a perfect uniformity exists in all that is made by this apparatus.

Having thus described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. In combination with the follower-shaft F the sectional nut G, as and for the purpose set forth.

2. In combination with the follower F and the sectional nut G the eccentric lever I, as and for the purpose set forth.

3. In combination with the followers F L and the sectional nut G the stirrup D and springs O′, as shown and described.

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