

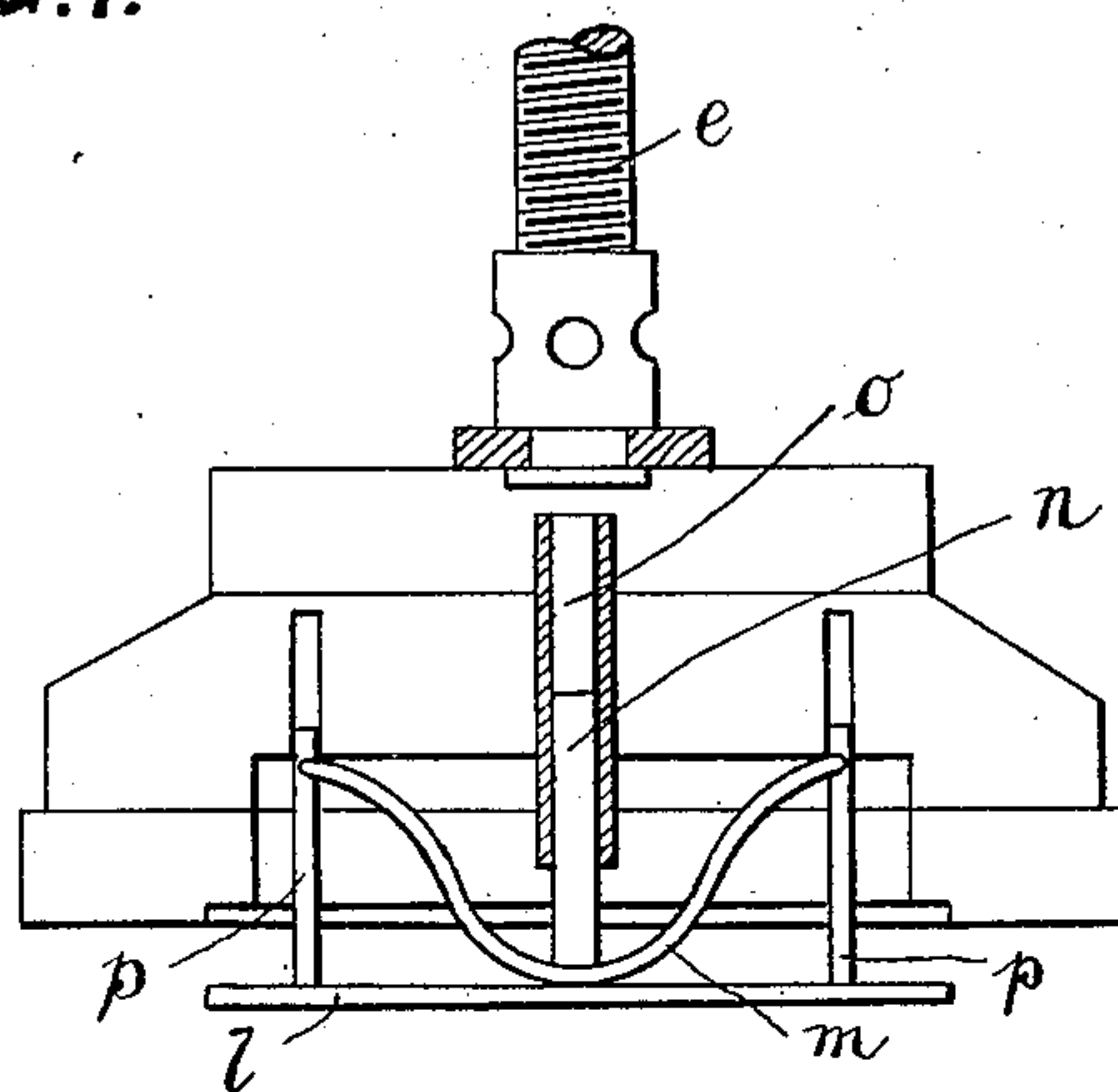
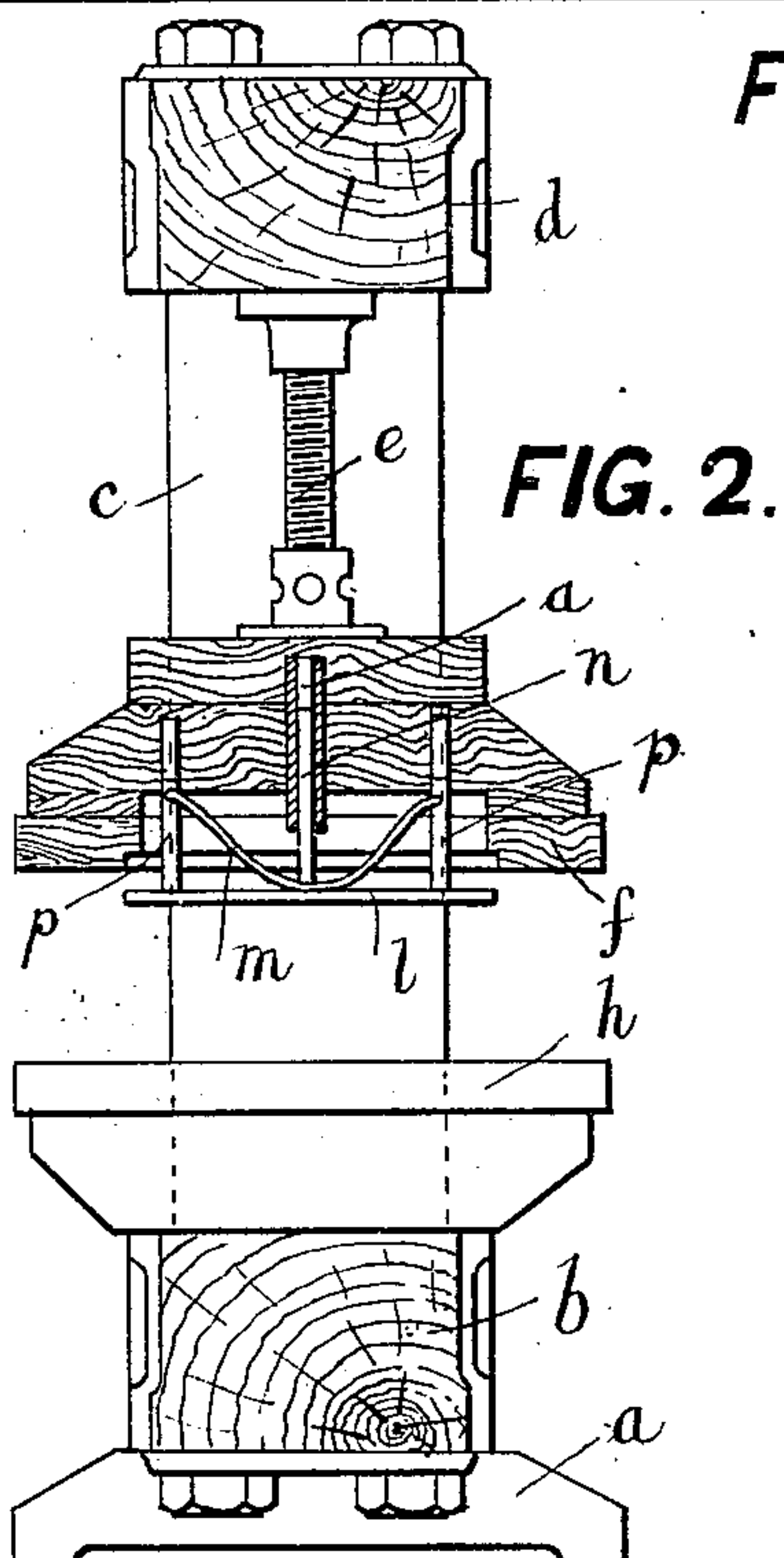
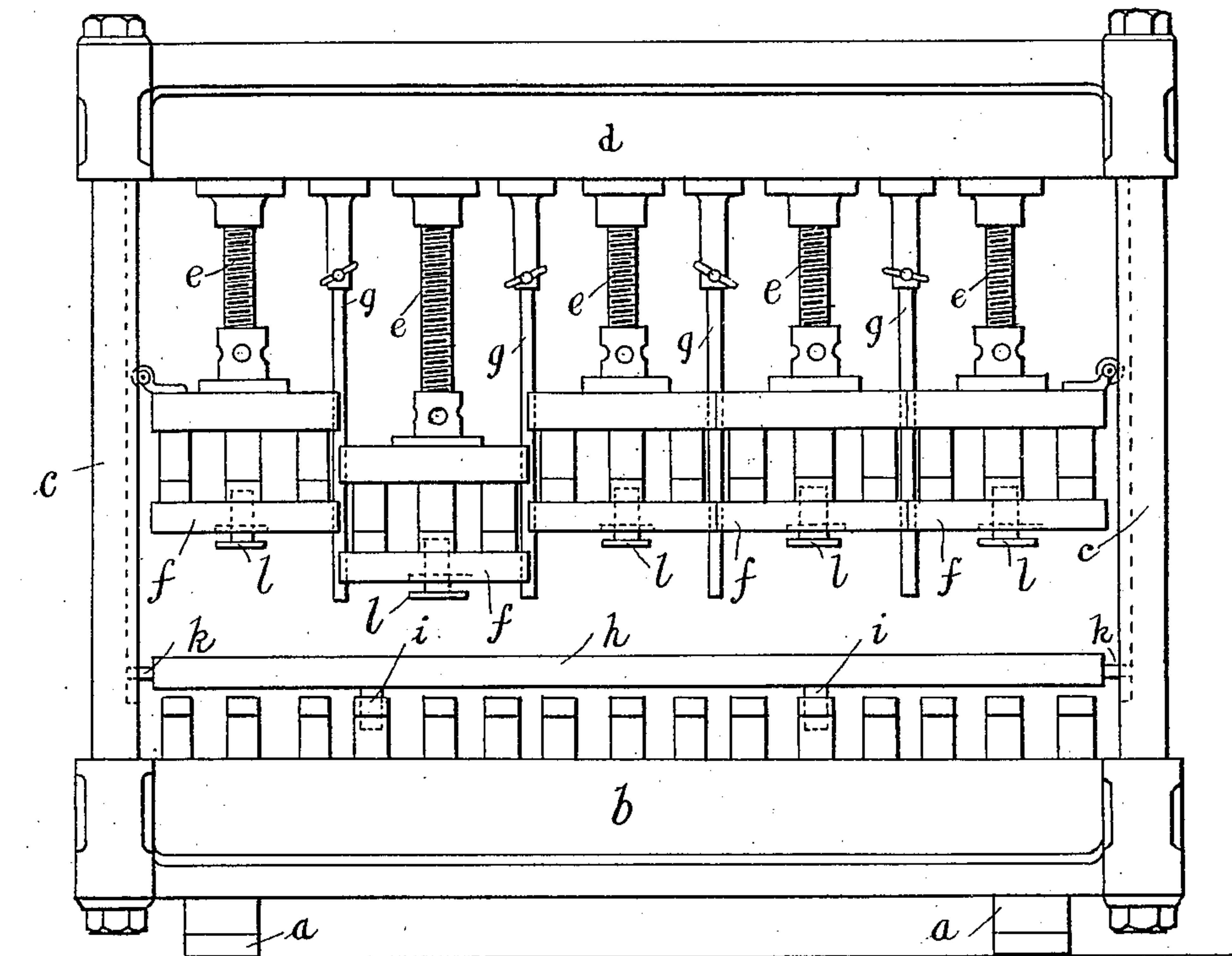
No. 669,216.

Patented Mar. 5, 1901.

**F. GRÜNIG.
VENEER PRESS.**

(Application filed Nov. 20, 1900.)

(No Model.)



INVENTOR

F. Grünig.

WITNESSES

WITNESSES
William Barker
Anna R. McCole.

By
Edward P. Thompson, Atty

UNITED STATES PATENT OFFICE.

FRIEDRICH GRÜNIG, OF OFFENBACH-ON-THE-MAIN, GERMANY.

veneer-press.

SPECIFICATION forming part of Letters Patent No. 669,216, dated March 5, 1901.

Application filed November 20, 1900. Serial No. 37,167. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH GRÜNIG, manufacturer, a subject of the Emperor of Germany, residing at Offenbach-on-the-Main, in the Empire of Germany, have invented certain new and useful Improvements in Veneer-Presses, (for which applications for patents have been made in Germany, dated February 15, 1900; in France, dated March 5, 1900, and in England, dated February 24, 1900,) of which the following is a specification.

This invention has for its object an improvement in the presses used for obtaining a smooth attachment and drying on of veneers, and, in fact, relates more particularly to presses of the kind which are provided with a series of suspended pressing-stamps arranged in proximity to one another. With this improved machine it is possible to now use veneers almost of the thinness of paper. Such veneers, however, become very warped and uneven during the drying and mounting. For making a good veneer it is, however, necessary that in laying the veneer all these numerous ridges and irregularities must be slowly pressed out in order that they may not break, but at the same time the pressing must be done with certainty from the center toward the outer edges in order that no blisters or bubbles may result. This is attained in this improved process by an arrangement of spring-mounted intermediate parts in the separate press-plates, as shown in the accompanying drawings, in which—

Figure 1 is a front view, Fig. 2 a cross-section, and Fig. 3 a detail view, of a press constructed according to my invention.

Side bars or frames *c* are mounted on foot-beams *b*, which are securely raised on feet *a*, which side bars carry a cross-piece *d*. From this latter the several pressing-plates *f* are suspended by means of screwed spindles *e*, said plates being each separately movable and guided by adjustable guide-bars *g*. On the foot-beams *b* a bed or foundation plate *h* is mounted and supported on plate-springs *i* and held by lateral pins *k*, so that it only lies firmly after it has overcome the resistance of the springs.

In the several press-plates an arrangement is provided whereby the veneers are first pressed on in the center gradually but firmly. This device consists of a metal plate *l*, on which a plate-spring *m* is arranged, Fig. 3, which latter has space for movement or play in a recess in the center of the pressing-plate *f*. The plates *l* may also, after a suitable compression of the springs *m*, rest in such a way in the pressing-plates *f* as to form one plane therewith. These plates receive guidance on the one hand by means of a central guide-bar *n*, traveling in a socket *o*, and on the other hand by means of guide-rods *p*, arranged one on each side of the same.

When veneers are to be pressed on by means of this improved press, the spindles are first only drawn up so far that the central pressure-plates of the separate stamps rest on the veneer and press it in the middle by means of the spring-pressure. Then the spindles are gradually more firmly applied in order that the veneer may have time to extend everywhere in such a way that it lies smooth. The spindles are only then firmly pressed on by means of suitable turning means, such as levers inserted in transverse holes in the spindles.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

In veneer-presses such as described, the arrangement of central vertically-guided plates *l* resting against springs *m* in the separate press-plates *f*, in such a way that these spring-mounted plates *l* project from the press-plates *f*, but with increase of pressure upon them they gradually bear upon and lie flush with the press-plates, substantially as hereinbefore described, and shown in the accompanying drawings.

In witness whereof I have hereunto signed my name, this 18th day of October, 1900, in the presence of two subscribing witnesses.

FRIEDRICH GRÜNIG.

Witnesses:

JEAN GRUND,
CARL GRUND.