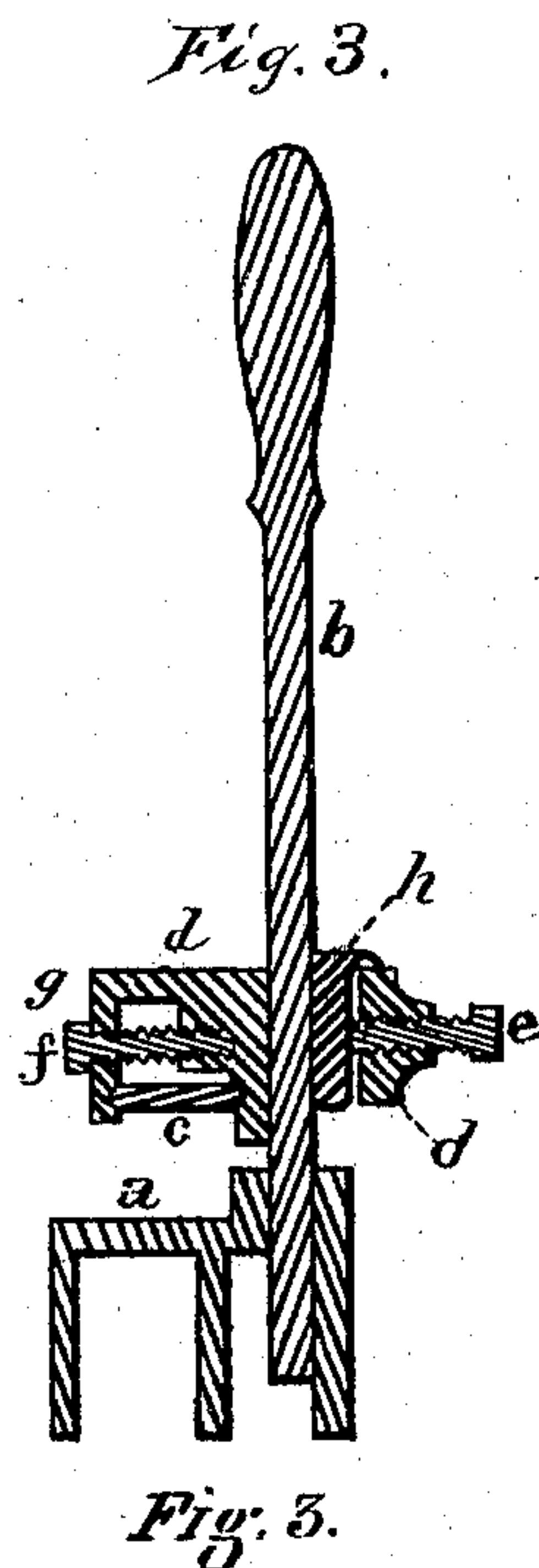
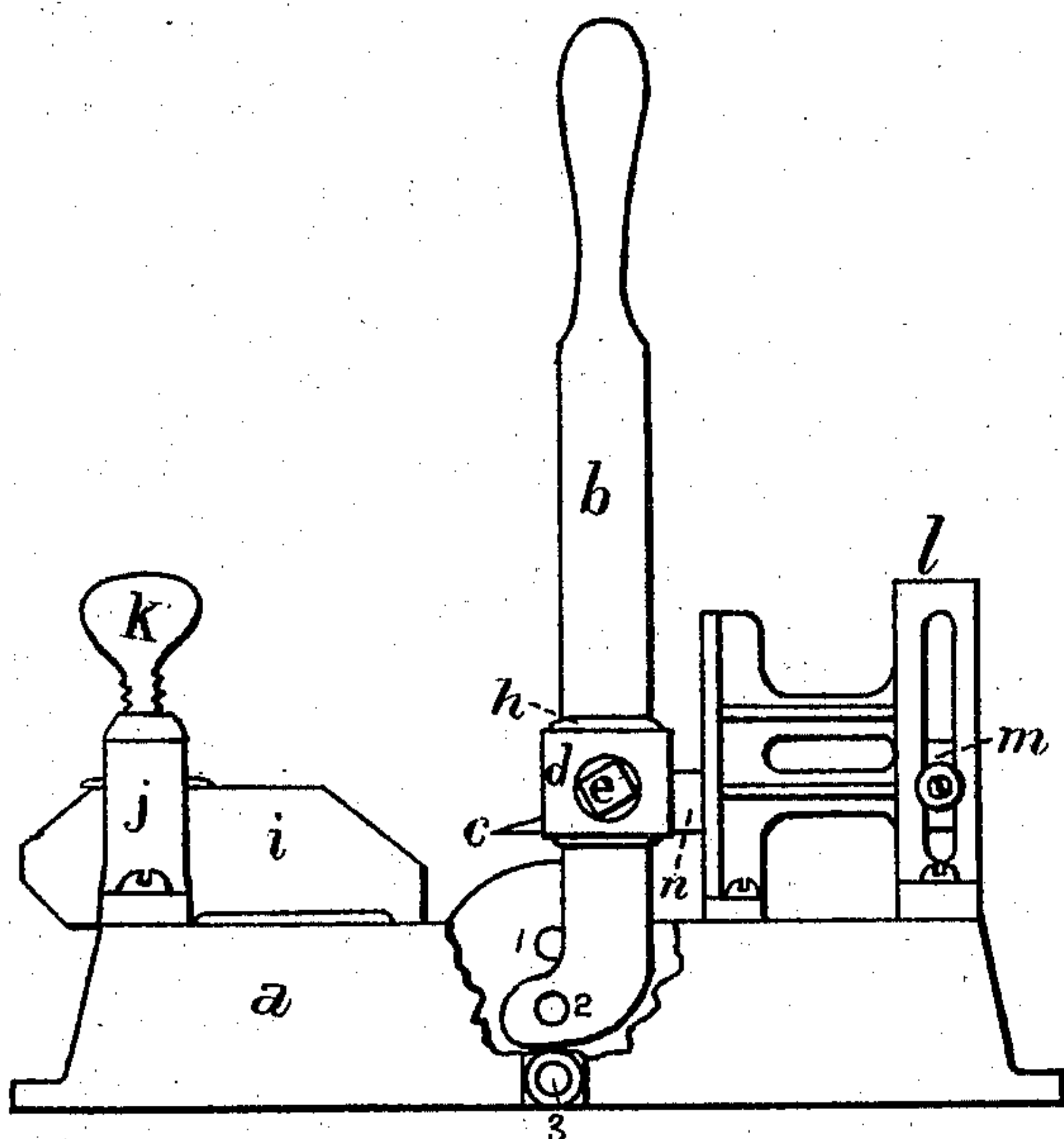
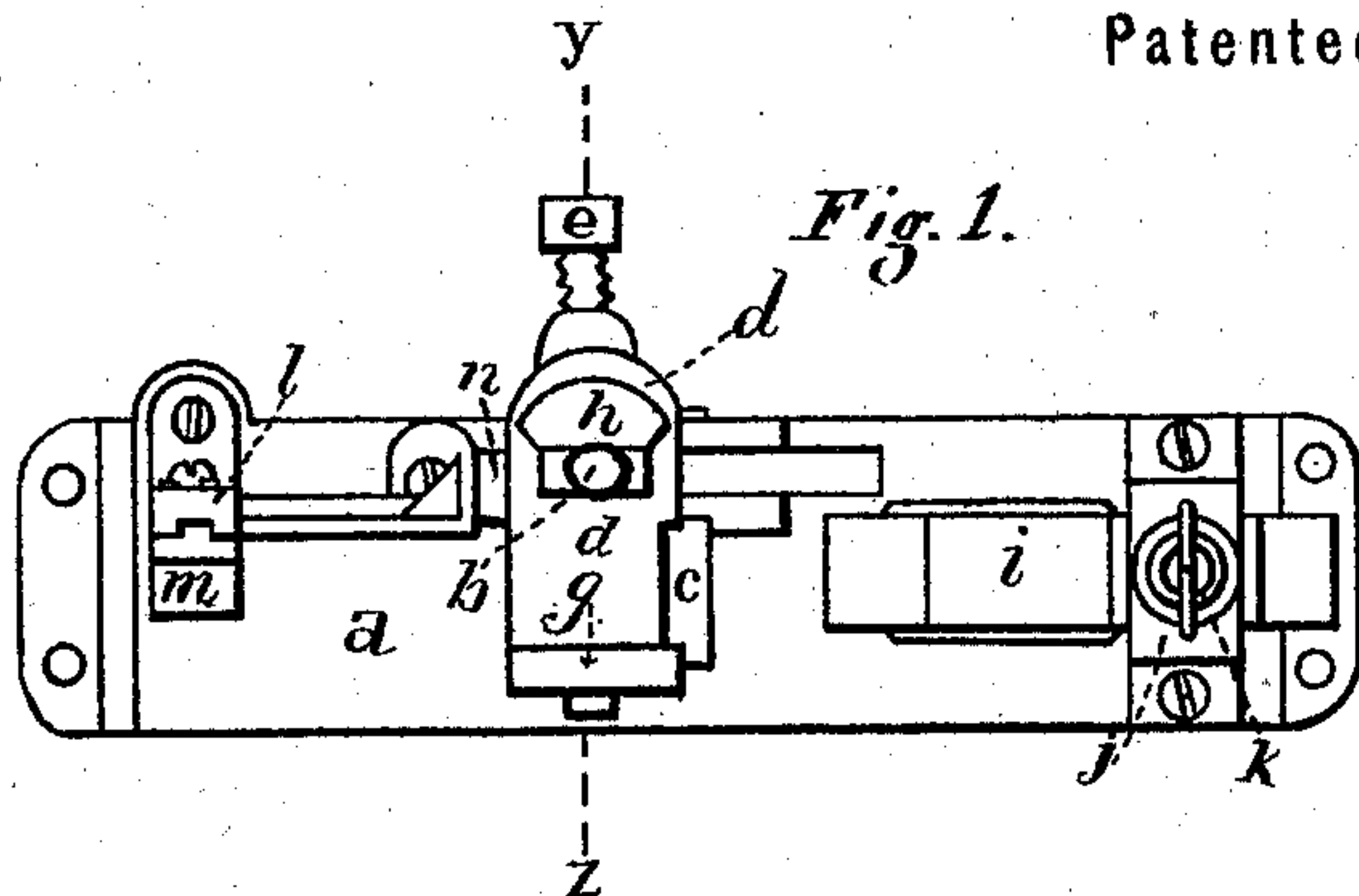


A. BURNHAM.

Machines for Cutting the Heads of Fence-Pickets.

No. 144,187.

Patented Nov. 4, 1873.



WITNESSES.

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UNITED STATES PATENT OFFICE.

ANDREW BURNHAM, OF REVERE, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR CUTTING THE HEADS OF FENCE-PICKETS.

Specification forming part of Letters Patent No. **144,187**, dated November 4, 1873; application filed May 24, 1873.

To all whom it may concern:

Be it known that I, ANDREW BURNHAM, of Revere, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Machines for Cutting the Heads of Fence-Pickets, of which the following is a specification:

This invention relates to a machine by which the heads or tops of flat fence-pickets are cut or shaped to the form of a Gothic arch; and the invention consists in a bed, which supports the picket when being cut, and a vibrating adjustable knife or cutter affixed to a pivoted lever, by which the knife is moved through the arc of a circle during the process of cutting each edge of the picket, and which is raised or lowered as the width of the pickets renders necessary, the lever-pivot being adjustable in relation to the bed for the purpose of changing the radius of the curve in which the knife moves, so as to produce heads of various lines of curvature upon pickets of the same width; and the invention also consists in an adjustable cutting-block, against which the knife is forced as it leaves the picket. It also consists in the construction and arrangement of the cutter-holder and of the lever-stop.

Figure 1 is a top or plan view. Fig. 2 is a side elevation; and Fig. 3 is a vertical transverse section taken on line Y Z, Fig. 1.

In the drawings, *a* is the bed, and *b* is the lever, which is pivoted to the bed at either of holes 1 2 3. *c* is the cutting-blade, which is secured in holder *d*, which is secured at any desired position upon the lever by set-screw *e*, which bears against gib *h*. The knife *c* is secured in the grooves in the holder and cap *g* by set-screw *f*, as shown in Fig. 3. *i* is the cutting-block, which rests upon the bed, and is secured in any desired position by set-screw *k*, which is threaded in the top of bracket *j*, through which the block passes. *l* is a fence or guide, against which the picket bears when being shaped. *m* is an adjustable keeper se-

cured to fence *l*. The picket, being placed under this keeper, is thereby prevented from rising when the knife acts upon it. *n* is a stop, which insures a vertical position of the lever, and a horizontal position of the knife when the lever is raised. This stop may be formed upon holder *d* or fence *l*, as desired.

As before intimated, by pivoting lever *d* nearer to or farther from the top of the bed, then, with the knife at the same distance from the bed, different forms of heads can be cut.

The block *i* is to be so adjusted as that the knife shall reach it at a vertical point above the bed which is equal to half the width of the picket, so that when the two edges of the picket have been thus cut it shall present two intersecting arcs of a circle, and yet no material decrease in its length shall have taken place.

By the peculiar form of holder *d*, it is secured in any desired position upon the lever by a single set-screw, while, by reason of the grooves in the holder and cap *g*, another screw secures the cutter in place, and the incline, or "chip-breaker," prevents all clogging or undue strain upon the cutter.

The stop *n*, by arresting the lever in a vertical position, insures the proper position of the cutter for the ready insertion of the picket beneath it.

I claim as my invention—

1. The bed *a*, lever *b*, and holder *d*, when constructed, combined, and arranged to operate substantially in the manner described and shown.

2. The cutter-holder *d*, having stop *n*, and formed to receive lever *b*, and with cap *g*, provided with parallel grooves to receive the cutter *c*, substantially as described and shown.

ANDREW BURNHAM.

Witnesses:

WM. W. BURRAGE,
T. W. PORTER.