(No Model.)

S. T. THOMPSON & W. B. RICHARDS.

COMBINED PUNCHING AND FLANGING MACHINE.

No. 318,221. Patented May 19, 1885.

Fig. 1.

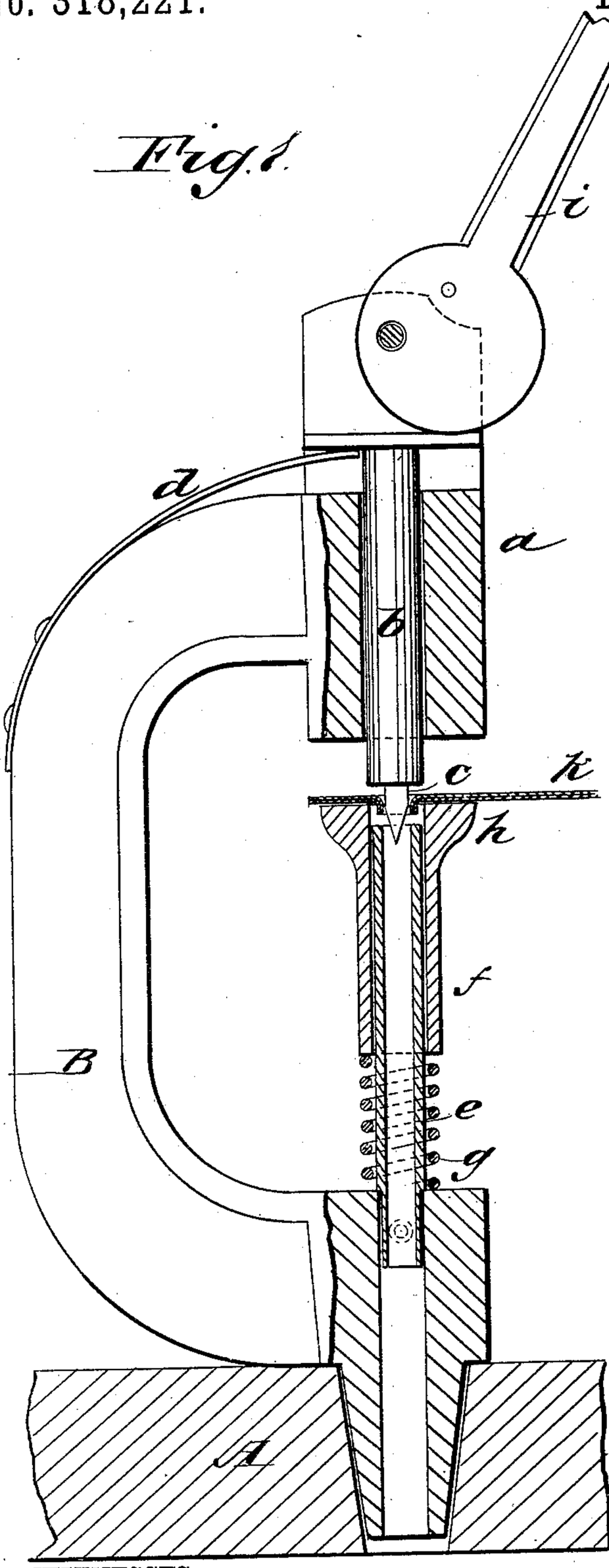
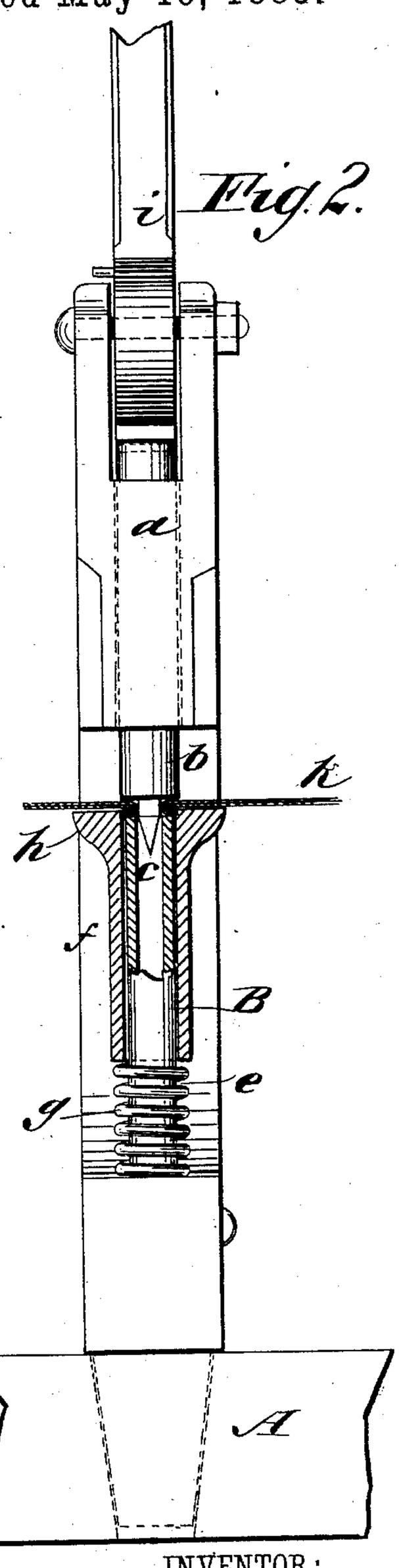


Fig. 2.



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UNITED STATES PATENT OFFICE.

SHERMAN T. THOMPSON AND WILLIAM B. RICHARDS, OF ADAMS, N. Y.

COMBINED PUNCHING AND FLANGING MACHINE.

SPECIFICATION forming part of Letters Patent No. 318,221, dated May 19, 1885.

Application filed June 12, 1884. (No model.)

To all whom it may concern:

Be it known that we, SHERMAN T. THOMPSON and WILLIAM B. RICHARDS, of Adams, in the county of Jefferson and State of New York, have invented a new and Improved Tinner's Tying-Machine, of which the following is a full, clear, and exact description.

When two or more sheets of tin are to be cut at once, it is usual to tie them together by cutting into the side of the sheets and bending over the piece thus slit. Our improved machine is for accomplishing this work of tying more rapidly and easily, and combines a sliding punch, spring face-plate, and fixed bed for punching the sheets and riveting the burr caused by the punch, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional side elevation of our improved machine, and Fig. 2 is a face view, partially in section.

A represents a tinner's bench-plate, and B is the body of the tying-machine having a squared lower portion adapted for entering a hole in plate A, whereby the machine is held in an upright position, and can be easily removed when not wanted for use. In the head *a* of the machine is a sliding plunger, *b*, carrying a punch, *c*, in its lower end, and held upward by a spring, *d*, of any suitable arrangement. *e* is a tube fixed below the head *a*, and carrying a loose tube, *f*, which has an enlarged upper end forming a face-plate, *h*. On fixed tube *e* is a spring, *g*, acting against the lower end of tube *f* so as to raise the face-plate above the upper end of tube *e*. *i* is a cam-lever hung above the plunger *b* and bearing on the same.

In operation the sheets of tin (represented at *k*) are laid upon the face-plate *h*, and the punch, being then forced down by the eccentric, passes through the sheets, the spring *g* being strong enough to resist the pressure. As soon as the plunger or a shoulder on the punch reaches the plates the face-plate is forced down and the burr at the under side caused by the punch is forced upon the fixed bed formed by upper end of tube *e*, so that the burr is clinched or riveted in a manner to tie the plates together firmly.

This work is all done by a single motion of the lever, and is much simpler, more easily done, and more effective than the common method.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The tinner's tying-machine, consisting of body B, having head *a*, plunger *b*, punch *c*, fixed tube *e*, spring-supporting face-plate *h*, and cam-lever *i*, substantially as described, combined for operation as specified.

2. In a tinner's tying-machine, the combination of plunger *b*, tube *e*, slide-tube *f*, and spring *g*, substantially as described, for operation as specified

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Witnesses:
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