C. H. PERKINS.

Guides for Rolling-Mills.

No. 144,633. Patented Nov. 18, 1873.

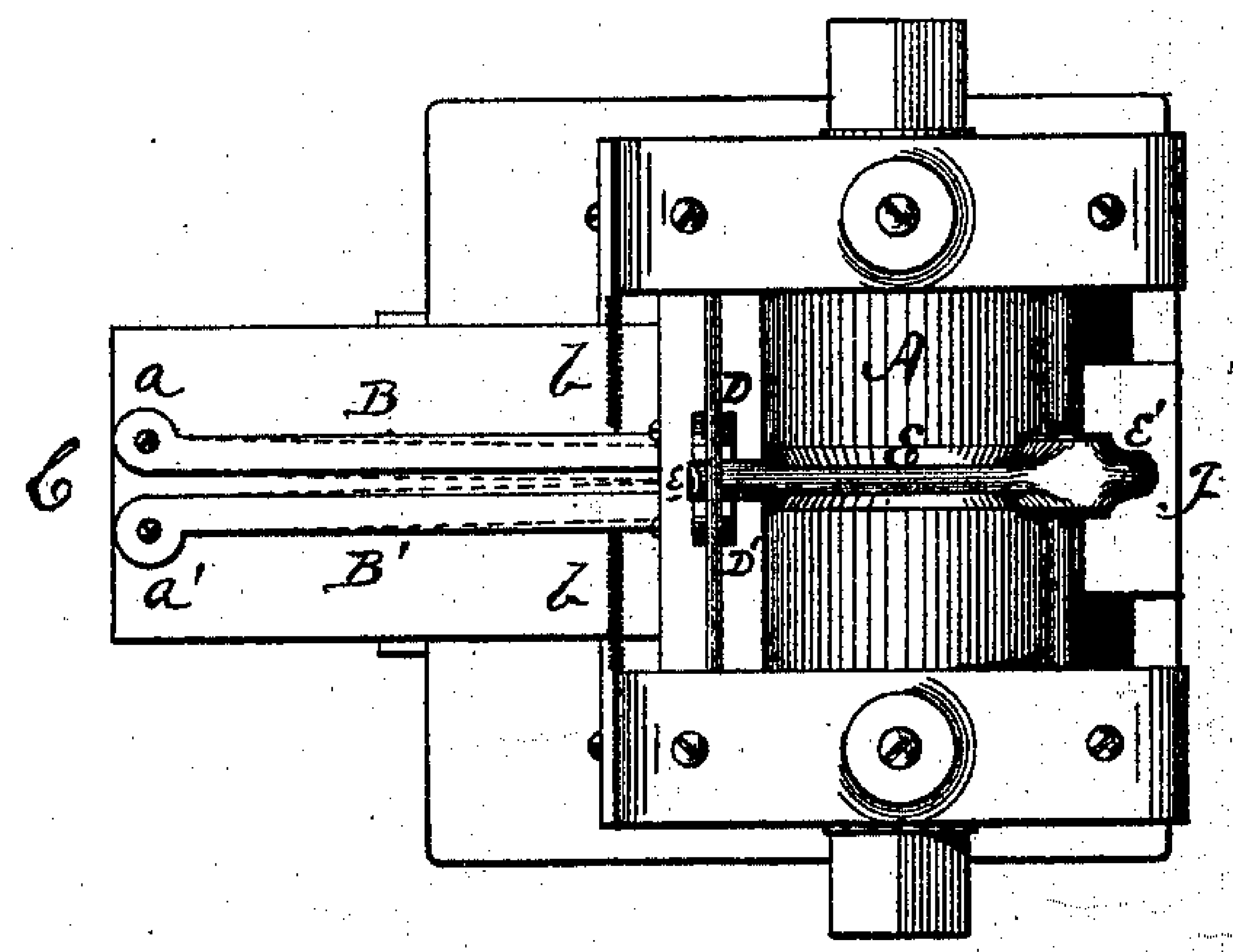

FIG. 1.

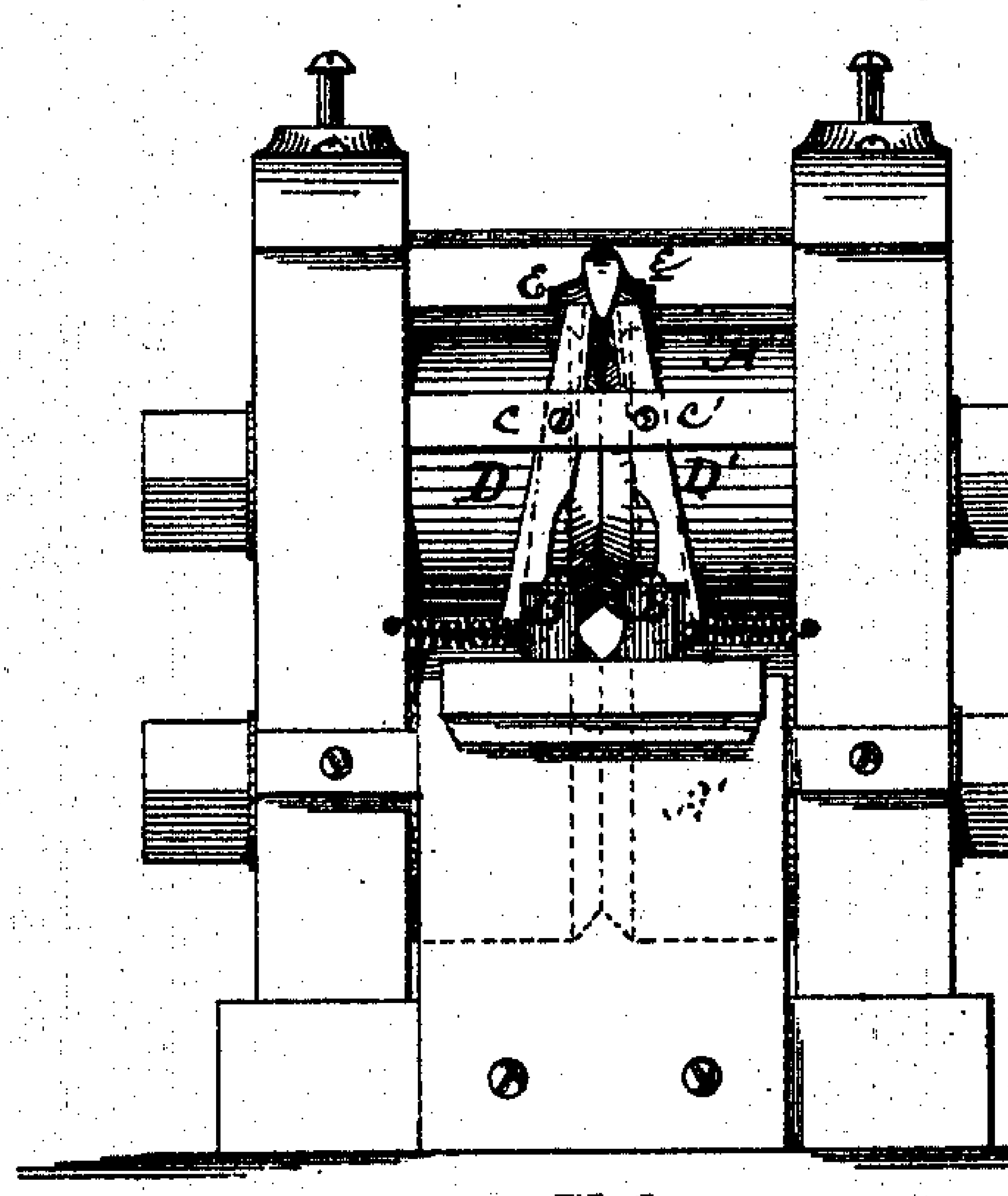

FIG. 2.

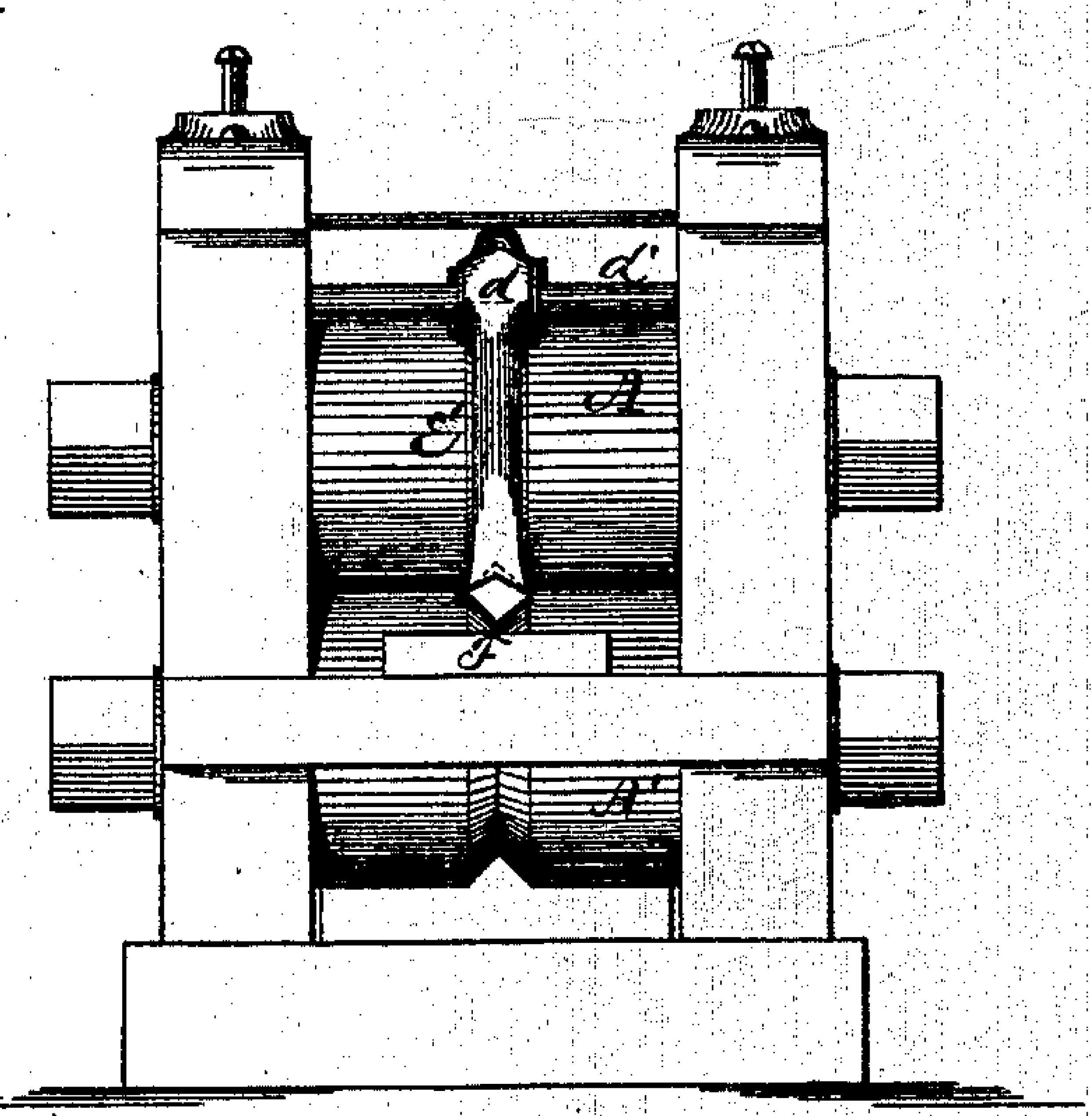

FIG. 3.

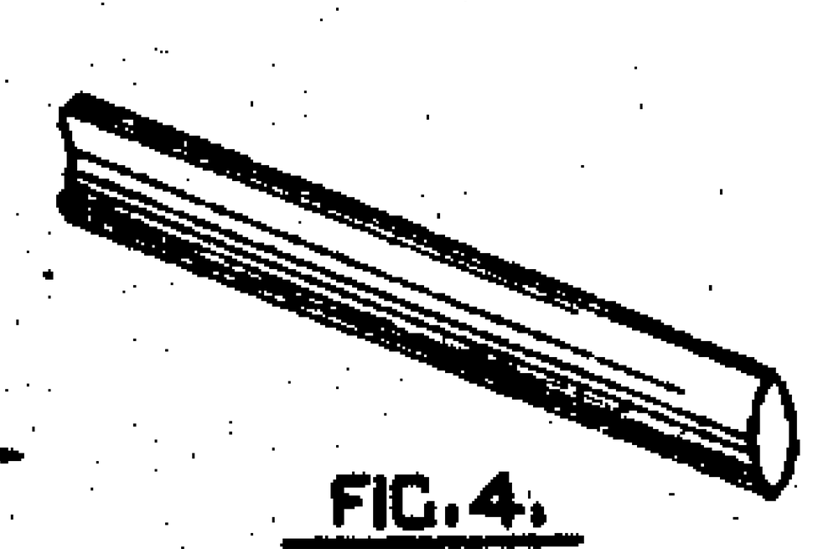

FIG. 4.

WITNESSES:

Samuel [illegible]

Thomas F. Cosgrove

INVENTOR.

Charles H. Perkins

per B. F. Thurston

atty

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

CHARLES H. PERKINS, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN GUIDES FOR ROLLING-MILLS.

Specification forming part of Letters Patent No. **144,633,** dated November 18, 1873; application filed June 24, 1873.

CASE C.

To all whom it may concern:

Be it known that I, CHARLES H. PERKINS, of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Rolling-Mills; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

Fig. 1 is a top view. Figs. 2 and 3 are, respectively, front and rear views. Fig. 4 represents the bar before it enters the rolls.

The invention hereinafter described consists in the employment of a guide of peculiar construction, in combination with the rolls of a rolling-mill, the said guide being so constructed that the rolled bar passing from the rolls shall cause the guide to hug closely between its walls the portion of the bar just entering the scores in the rolls.

In the drawings, A A′ represent a pair of rolls for rolling iron, mounted in suitable housings, in the usual way, and which, being well understood, require no special description. B B′ constitute together the guide for the iron entering the score in the roll. The said guide is composed of two bars, whose inner faces are grooved, channeled, or shaped to suit the particular form of iron bar to be rolled. They are pivoted at their front ends to a platform or fixed table, C, so that their ends nearest the rolls can slide on the surface of the platform toward, or away from, each other, the bars B B′ turning on their pivots *a a′* as centers. Springs *b b* are applied in any convenient way to these bars, so that the tendency of the bars will be to separate from each other and permit the easy presentation of the end of the bar to the rolls. In combination with the said guides is a pair of tongs, D D′, consisting of two levers pivoted at *c c′* to a cross-rail of the frame of the machine. With these tongs a bent arm, E E′, is combined, hinged at *d* to a shaft, *d′*, mounted in the frame of the machine. Its front arm, E, carries a wedge, *e*, which, when inserted between the ends of the levers D D′ projecting above the pivot-pins *c c′*, will cause their lower ends to compress the guide B B′. The rear arm, E′, stands directly over the score between the two rolls, so that the bar of iron, as it issues from the rolls, will press upward against the end of the arm E′ as the iron runs over the receiving-platform F, and cause the wedge projection *e* to spread apart the upper end of the tongs D D′. The shape of the end of the arm E′ should conform to the shape of the rolled bar, and it may be provided with friction-rollers, if preferred.

While I prefer the bent lever or arm E E′ to be operated by means of the bar of iron rolled, so as to cause the guide B B′ to compress the iron entering the rolls, it is evident that the compression of the guide can be effected by means of a treadle connected with the arm, or, by other well-known mechanical means, be under the control of the operator.

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

1. In combination with the rolls A A′ of a rolling-mill, the compress-guide B B′, the tongs D D′, and wedge *e*, substantially as described.

2. The combination of the compress-guide B B′, the tongs D D′, the wedge *e*, and its operating-lever E E, so arranged that a bar passing through the guide will, by contact with the wedge operating lever, compress the rod within the guide, substantially as described.

CHARLES H. PERKINS.

Witnesses:

THOMAS F. COSGROVE,

SAMUEL AMES.