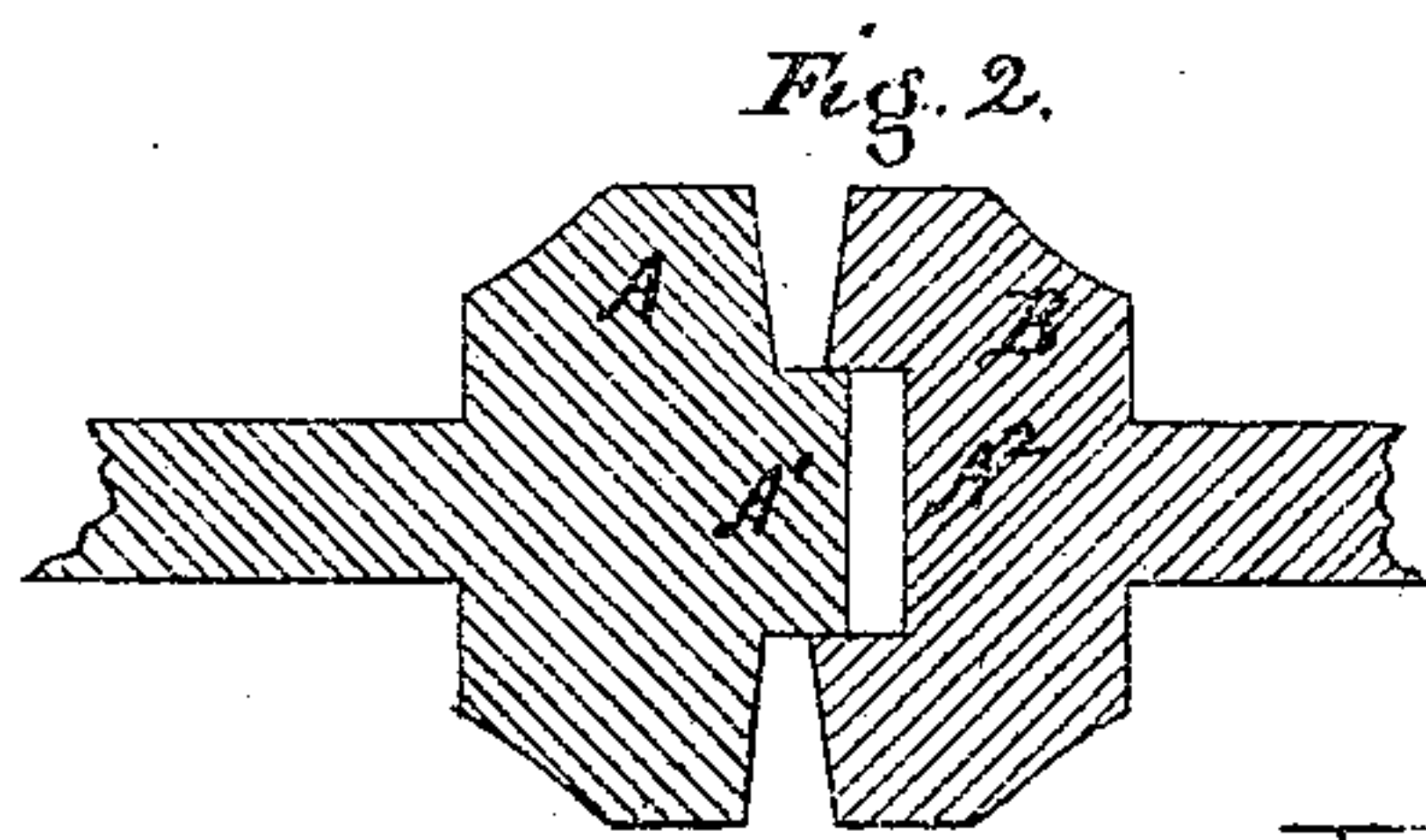
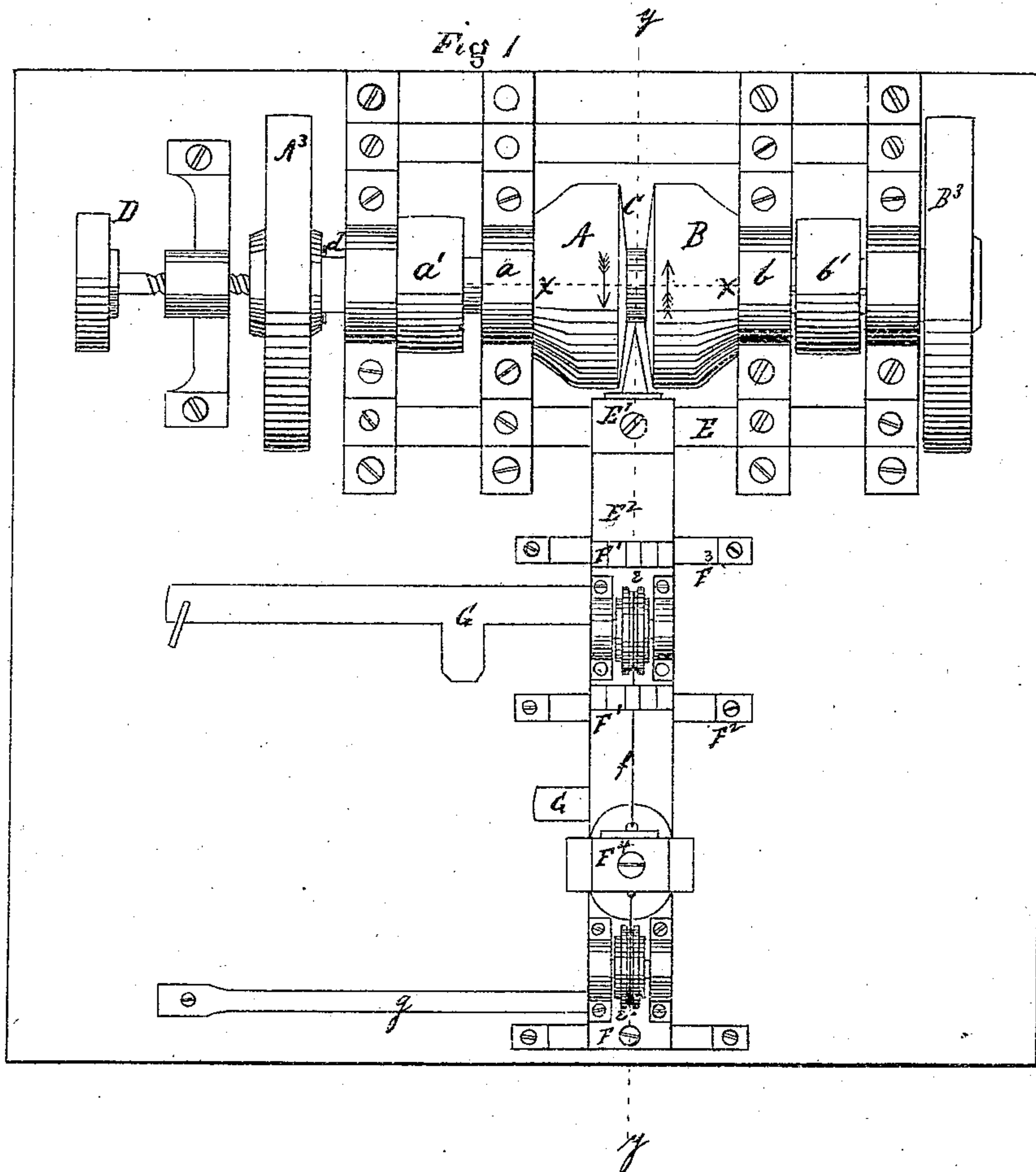


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Machines for Pointing Blanks for Rake-Teeth.

No. 153,466.

Patented July 28, 1874.



WITNESSES

Frederick Standish
James L. Kay

INVENTOR

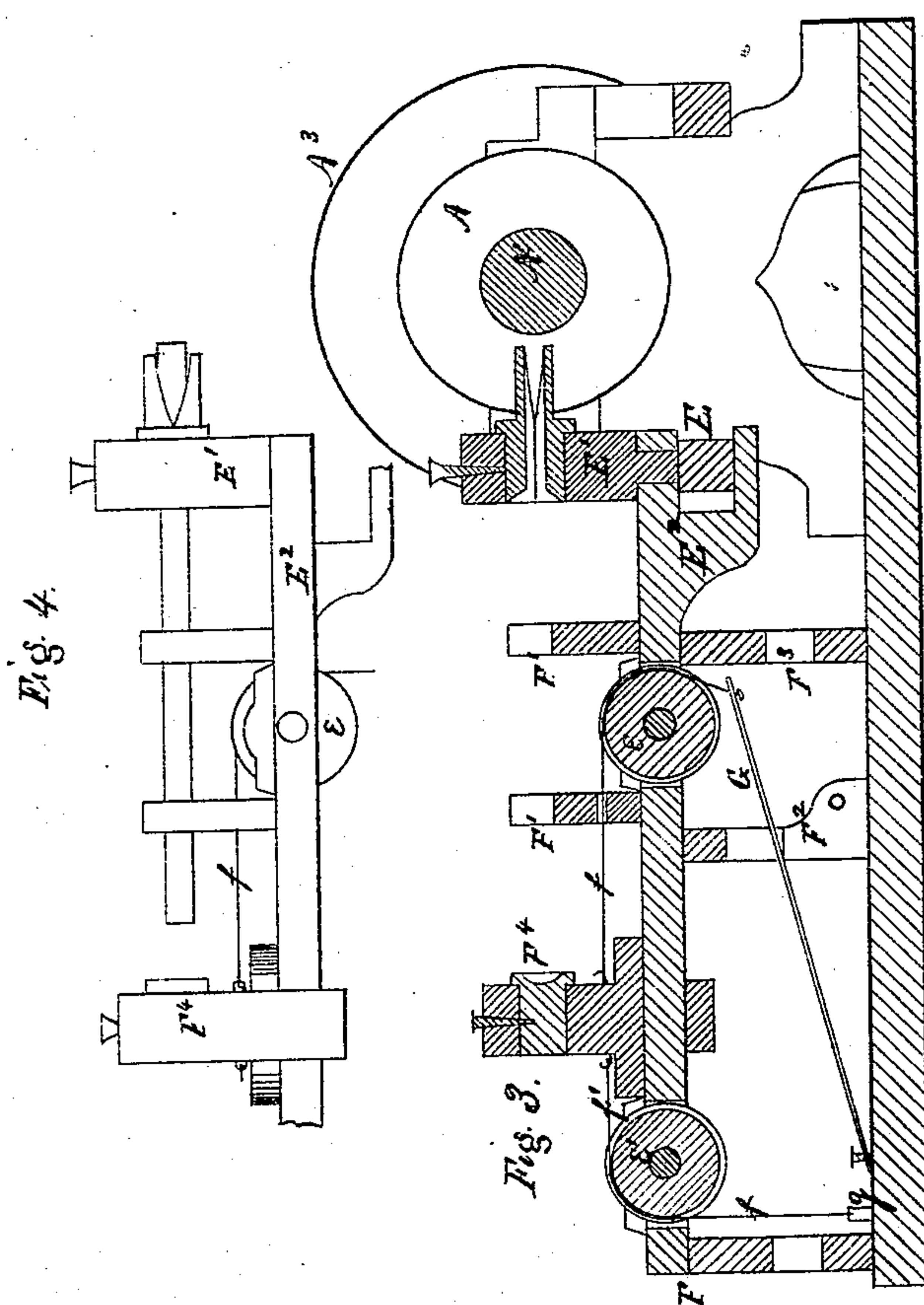
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UNITED STATES PATENT OFFICE.

JAMES SUGDEN AND EDMONDS J. SUGDEN, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR POINTING BLANKS FOR RAKE-TEETH.

Specification forming part of Letters Patent No. **153,466**, dated July 28, 1874; application filed April 28, 1874.

To all whom it may concern:

Be it known that we, JAMES SUGDEN and EDMONDS J. SUGDEN, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Machines for Pointing Blanks for Rake-Teeth and similar articles; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a plan view of our improved apparatus. Fig. 2 is a section of the rolls A B on the dotted line *x x*. Fig. 3 is a vertical section on the dotted line *y y* of Fig. 1; and Fig. 4 is a view of the holder, showing the position of the rod to be pointed.

Like letters refer to like parts in the several figures.

Our invention relates to apparatus employed in rolling metals; and it consists in the construction of properly-shaped rolls and their connections, to be used in the manufacture of pointed blanks for rake-teeth and similar articles—that is to say, consisting, first, in a pair of beveled rolls, arranged in the housings end to end, and with the contiguous ends united by means of a projection on one end extending into a socket in the other, whereby a lateral motion of one or both the rolls is attained; and, secondly, in the combination, with beveled rolls, of a guide-holder for sustaining the blank and presenting it to the beveled rolls, and a spring-holder to bear against the end of the blank to keep it well up in the V-shaped cavity of the rolls.

To enable others skilled in the art to make and use our invention, we will now proceed more specifically to describe the same.

A and B represent two beveled rolls, mounted in housings *a b*, receiving motion from pulleys *a' b'*, and revolving in opposite directions, as shown by the arrows. The rolls A and B are beveled upon the faces presenting toward each other, so as to form the V-shaped cavity C. Upon the center of the roll A is a projection, A¹, (see Fig. 2,) similar to the projecting end of a shaft, which extends into a corresponding socket, A², in the face of the opposite roll B. The object of this construction is to allow for a lateral play of the rolls without

their becoming separated, so that the rolls may be drawn slightly apart for the introduction of the blank. On the end of the shafts carrying the rolls A and B are fly-wheels A³ B³. D indicates a screw, or other suitable device, bearing upon the end of the shaft of the roll A, so that this shaft, which is capable of motion endwise in its bearing, may be forced forward by means of said screw, causing the roll A to approach the roll B, reducing the size of the V-shaped cavity C. Between the inner wheel A³ and the housing of the shaft a spring, *d*, may be placed for retracting the shaft when the screw releases it, or when a blank is to be introduced. By this means the size of the V-shaped opening C may be controlled by means of the screw D, and the rolls may be made to bear equally upon the blank in said cavity as it is gradually reduced or pointed. E indicates a guide-bar, extending across in front of the rolls and fastened to the housings. This guide-bar is intended to support a holder, E¹, which rests upon it, and is capable of slight lateral movement, for purposes hereinafter specified. The holder E¹ is attached to the forward end of a bar or beam, E², said bar being pivoted at its rear end to a post, F, and resting movably upon trestles F² F³, so as to admit of lateral movement of the holder E¹. *e* and *e'* are two pulleys fixed upon the bar E². F¹ F¹ are guide-braces, upon which rests the bar which is to be pointed, and F⁴ is a sliding brace or spring-holder, by which pressure is made against the ends of the blank. *f'* is a rope or chain passing from the sliding brace or spring-holder F⁴ over the pulley *e'* to a spring, *g*, by means of which the sliding brace F⁴ is retracted, while a second rope or chain, *f*, passes over the pulley *e*, and is attached to a treadle, G, to enable the sliding brace F⁴ to be drawn forward.

The operation of my device is as follows: A rake-tooth blank which is to be pointed is passed through the holder E¹, and allowed to rest upon the supports or guide-braces F¹ F¹, and the spring-holder F⁴ is brought to bear against the end of the blank by pressure applied on the treadle G. The roll A is then drawn back laterally a slight distance by suitable devices to admit the end of the blank being pushed into the V-shaped groove, and this

being done the roll A is gradually returned to its proper position by the pressure of a suitable spring or equivalent device pressing against the end of the shaft; or the roll may be forced forward by the screw D working upon the end of the shaft, as indicated. The end of the blank is gradually reduced or pointed by the action of the rolls A and B, which turn in opposite directions. The blank is pressed forward by the spring-holder F⁴ operating against its outer end.

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

1. A pair of rolls, A and B, arranged in housings end to end, with the contiguous ends

united by means of a projection on one end extending into a socket in the other roll, the joint being sufficiently loose to allow the rolls to revolve in opposite directions, substantially as and for the purpose specified.

2. In combination with the spring-holder F⁴ and guide E¹, the beveled rollers A and B, substantially as and for the purpose set forth.

In testimony whereof we, the said JAMES and EDMONDS J. SUGDEN, have hereunto set our hands.

JAMES SUGDEN.

EDMONDS J. SUGDEN.

Witnesses:

LOUIS HAGER,

JAMES I. KAY.