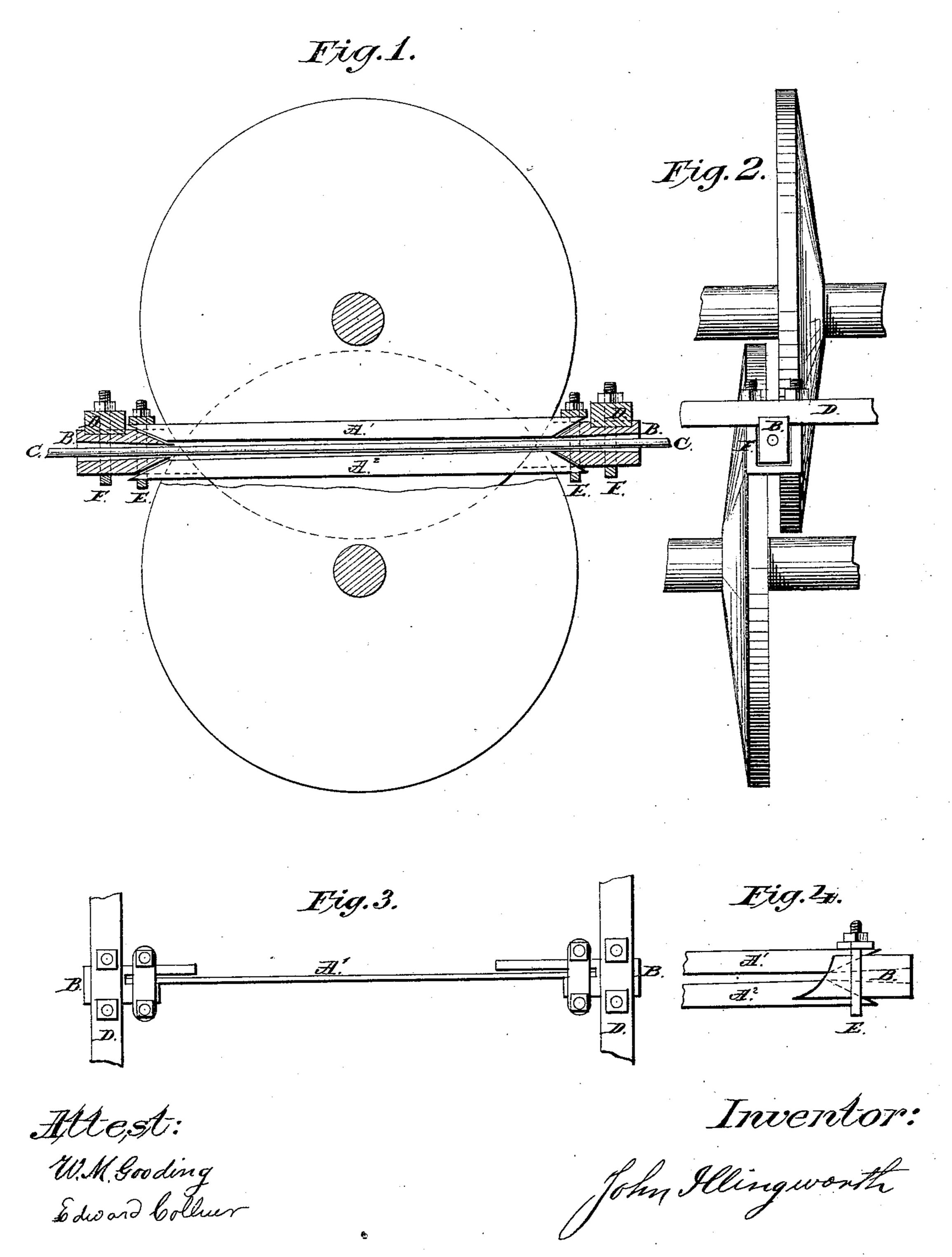
## J. ILLINGWORTH.

## Machines for Polishing Rods.

No.153,677.

Patented Aug. 4, 1874.



## UNITED STATES PATENT OFFICE.

JOHN ILLINGWORTH, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN MACHINES FOR POLISHING RODS.

Specification forming part of Letters Patent No. 153,677, dated August 4, 1874; application filed May 21, 1874.

To all whom it may concern:

Be it known that I, John Illingworth, of Newark, State of New Jersey, have invented guides to steel rods in their passage through a surface-polishing machine, of which the following is a specification:

The object of my invention is to guide rods that are passed through guides and between

polishing-surfaces.

In the accompanying drawings, only so much of the polishing machinery is shown as will suffice to illustrate the position and office of the guide-plates and the manner of connecting them with the machinery.

Figure 1 is a side view of a pair of face-plate wheels, part of one being broken away to allow the rod, the guide-plates, and their attachings to be shown in horizontal section. Fig. 2 is an end view of the guide and the edges of the wheels. Fig. 3 is a top view of guide-plate and its attachings to the guides. Fig. 4 is a side view of the same.

A<sup>1</sup> A<sup>2</sup> are the guide-plates, consisting of metal plates of the required length and width suited to the size of the bars or rods under

treatment. The ends of the plates are beveled, as shown, and rest in fitting recesses in the guides B, being secured thereto by the shackle E. The guides B are held by the shackles F to the cramp-bars D that are secured to the main frame of the machine.

The rods are passed in the guide on the left, the guide-plates being slightly farther apart at that end, but close down above and below the orifice in the right-hand guide. As the rod C is guided on its sides by the wheels and above and below by the plates A<sup>1</sup> A<sup>2</sup>, it can but pass right on, the great speed and force of the rod in passing requiring just such accuracy to prevent mischief.

What I claim as my invention, and desire

to secure, is—

In combination with the grinding or polishing wheels, the guides B B and guide-plates A<sup>1</sup> A<sup>2</sup>, substantially as described, and for the purpose set forth.

JOHN ILLINGWORTH.

Witnesses:

W. M. Gooding, Edward Collver.