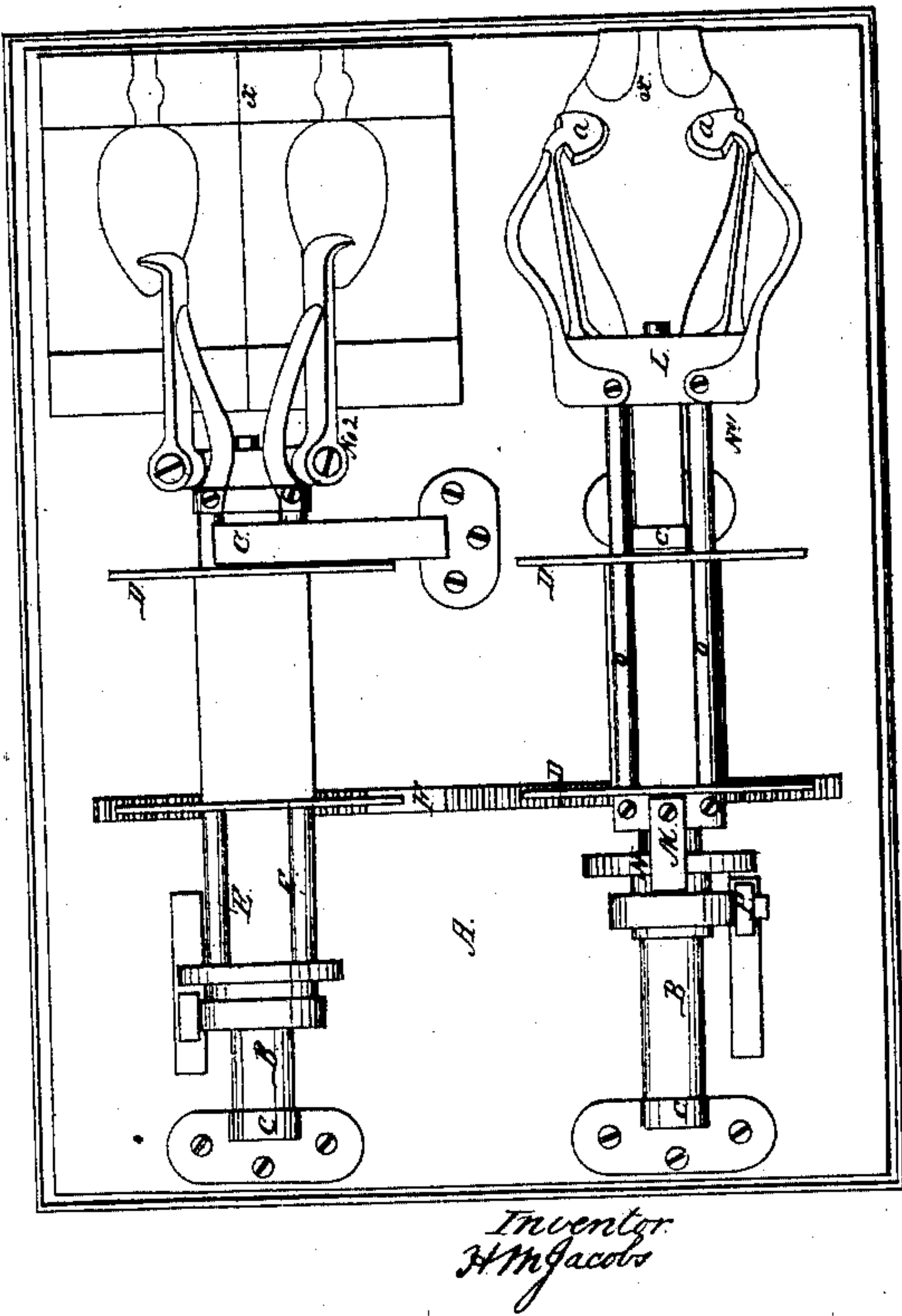
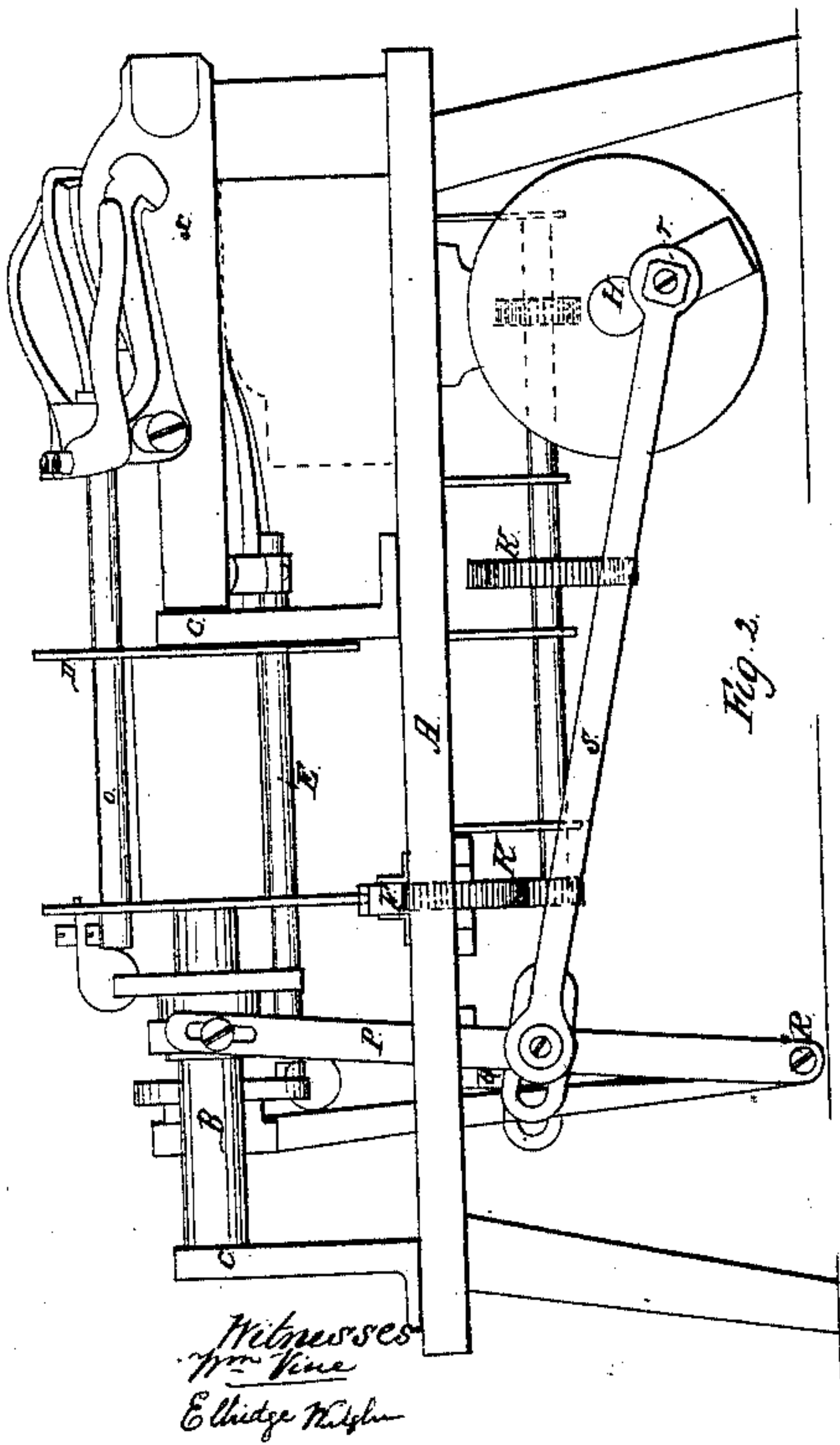
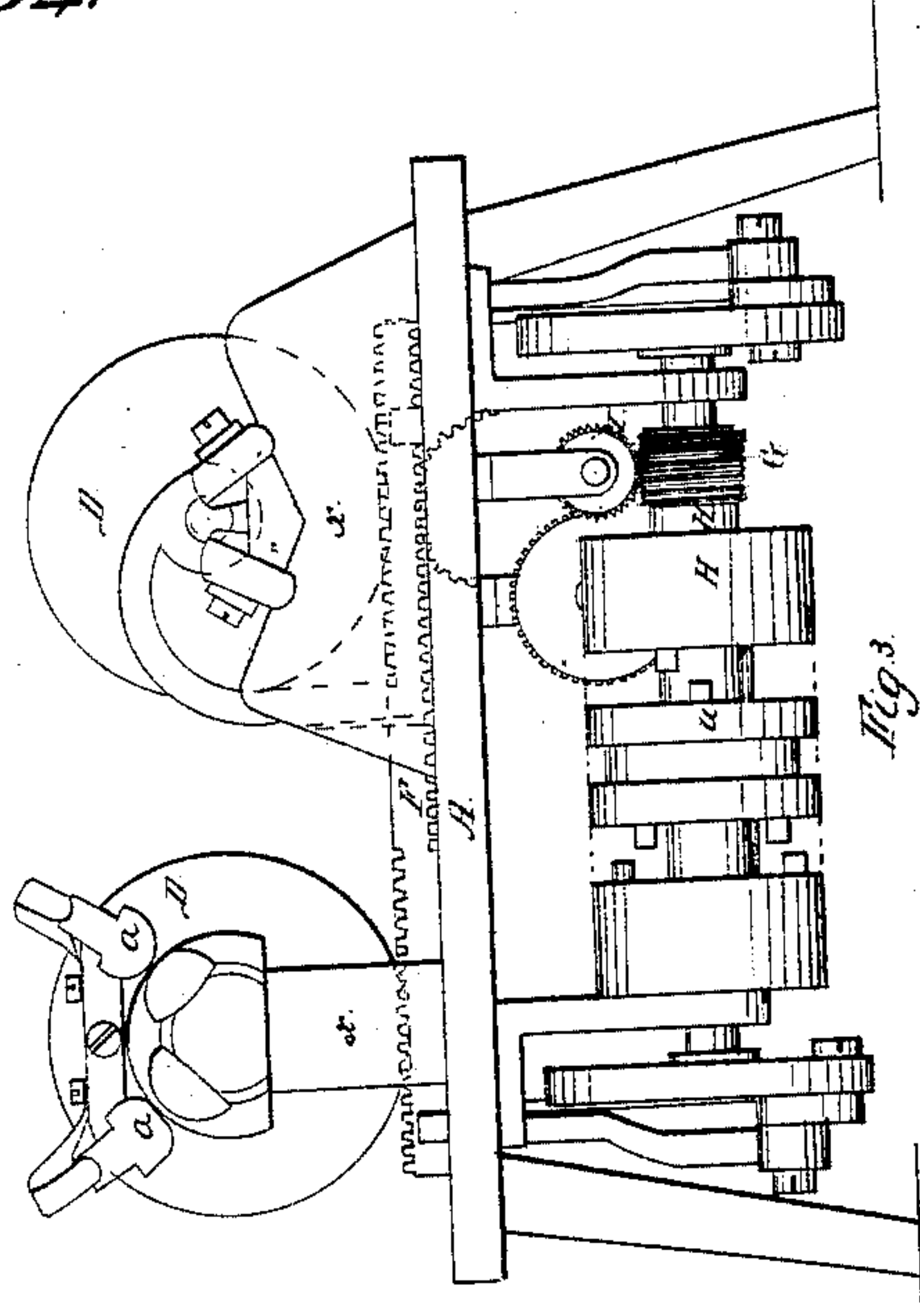


*H. M. Jacobs,*

*Burnishing Spoons.*

*No. 30,734.*

*Patented Nov. 27, 1860.*



# UNITED STATES PATENT OFFICE.

HENRY M. JACOBS, OF HARTFORD, CONNECTICUT.

## IMPROVED MACHINE FOR BURNISHING SPOONS.

Specification forming part of Letters Patent No. 30,734, dated November 27, 1860.

*To all whom it may concern:*

Be it known that I, HENRY M. JACOBS, of the city of Hartford, county of Hartford, and State of Connecticut, have invented new and useful Improvements in the Mode of Constructing Machines for Burnishing Spoons and other Articles; and I do hereby declare that the following is a correct description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to an improved double-acting machine for burnishing the bowls of spoons both inside and out, and other articles; and it consists in a novel method of using and graduating two sets of burnishers at one time.

To enable others skilled in the art to make and use my invention, I will proceed to describe the construction and operation.

In the drawings, Figure 1 is a plan view of the top of the machine. Fig. 2 is a side view of the machine; Fig. 3, end or front view of same.

The frame or platform A is constructed in the usual and proper mechanical manner. The two horizontal shafts B and B are supported by the standards and bearings C C C C. On these shafts are placed the flanges D D D D. The two rear ends have cogs or teeth at the bottom edge of their peripheries, to work in corresponding cogs in the horizontal transverse traveling rack F. This traveling rack F receives its momentum from the worm-gear G on the shaft of the driving-pulleys H, the toothed pinion I working in the same, which communicates a slow motion to the gears K K, and thence to the under teeth of the rack F.

I will now describe the operation and movements of one set of burnishers, the general arrangement and action of the other pair of burnishers being precisely similar.

No. 1 is the burnishers that operate on the outside of the bowl of the spoon. The two horizontal sliding shafts O O pass through the upper part of the flanges D D, and are attached at the front end to the cross-head L and the two burnishers *a a*, and at the back end to the cross-head and notched arm M. The notch of

this arm M passes over and works on the periphery of the sliding flange N. This flange N slides on the shaft B by means of a feather and groove, and is actuated by the vibratory movement of the vertical arm P, which is connected by a slot and pin at the upper end to the flange N, and attached at the bottom end to the vertical fixed pendant Q by means of the pin R, and at the middle by a slot and pin to the horizontally-inclined arm S, this arm S being attached to the eccentric or crank-pin T on the flange of the main driving-shaft H, and receives its motion therefrom. To the forward cross-head L are attached the two burnishers *a a*, and receive their back and forward movement by the action of the vertical arm P and sliding flange N. The transverse slow movement of the burnishers is caused by the reciprocating travel of the rack F actuating the under-toothed flange D, the rack F traveling the distance required for the burnishers to traverse and operate laterally on all the required surface. The reversed action of the rack is caused by the sliding clutch U on the main shaft H being moved from one driving-pulley to the other by a lever or by an automatic arrangement.

The arrangements of the burnishers No. 2 are similar to No. 1, except that the two sliding rods W W are placed and pass through the bottom part of the flanges D D, instead of through the top part, as No. 1.

The formers or dies X X are placed on the platform A in a proper manner for operation, and are movable and adjustable for various-size spoons.

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

The arrangement of the horizontally sliding and vibrating shafts K K and the transverse traveling and reciprocating toothed rack F, to actuate the same, in combination, in the manner and for the purpose substantially as herein set forth and described.

H. M. JACOBS.

Witnesses:

WM. VINE,  
ELBRIDGE WRIGHT.