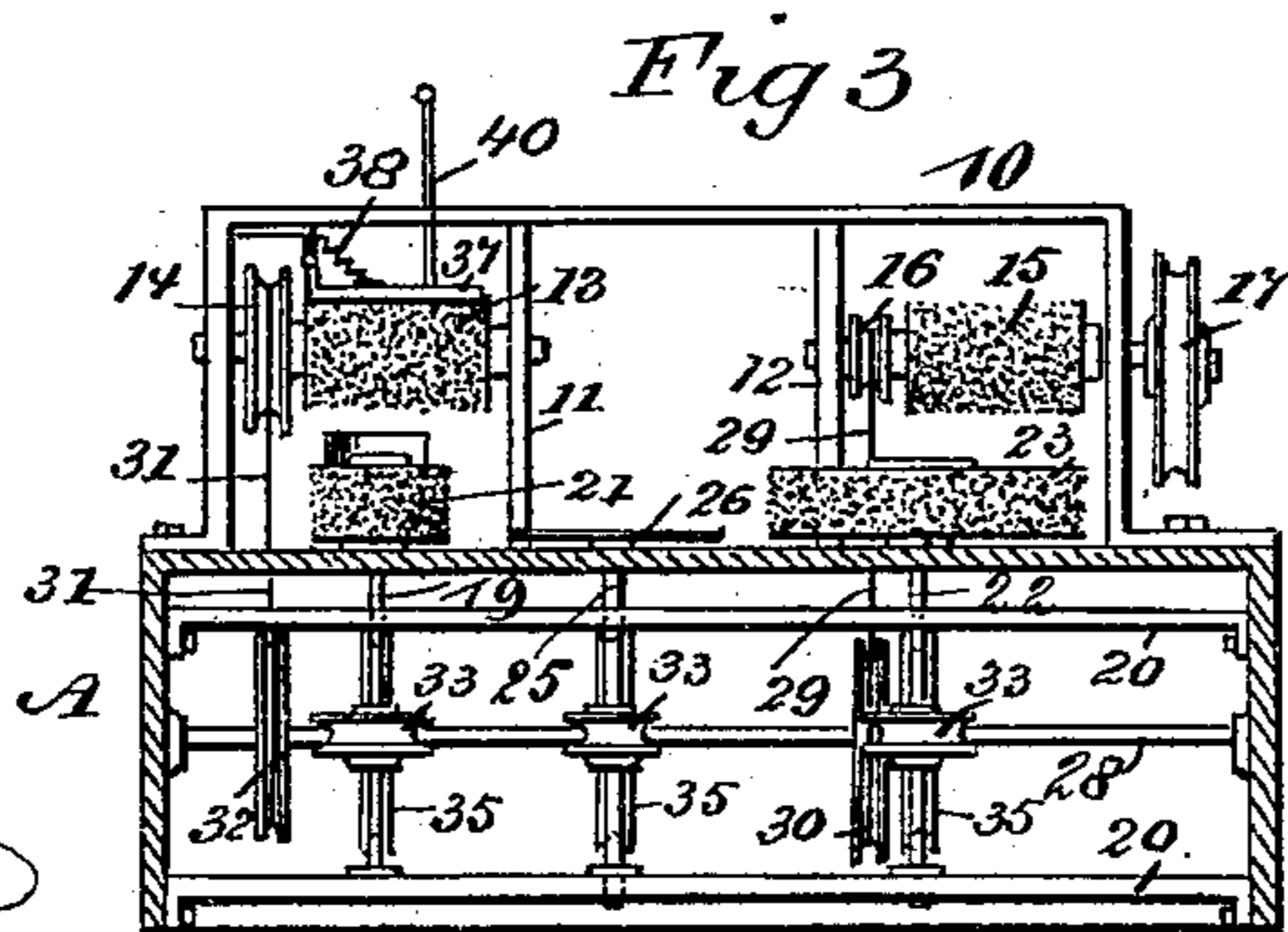
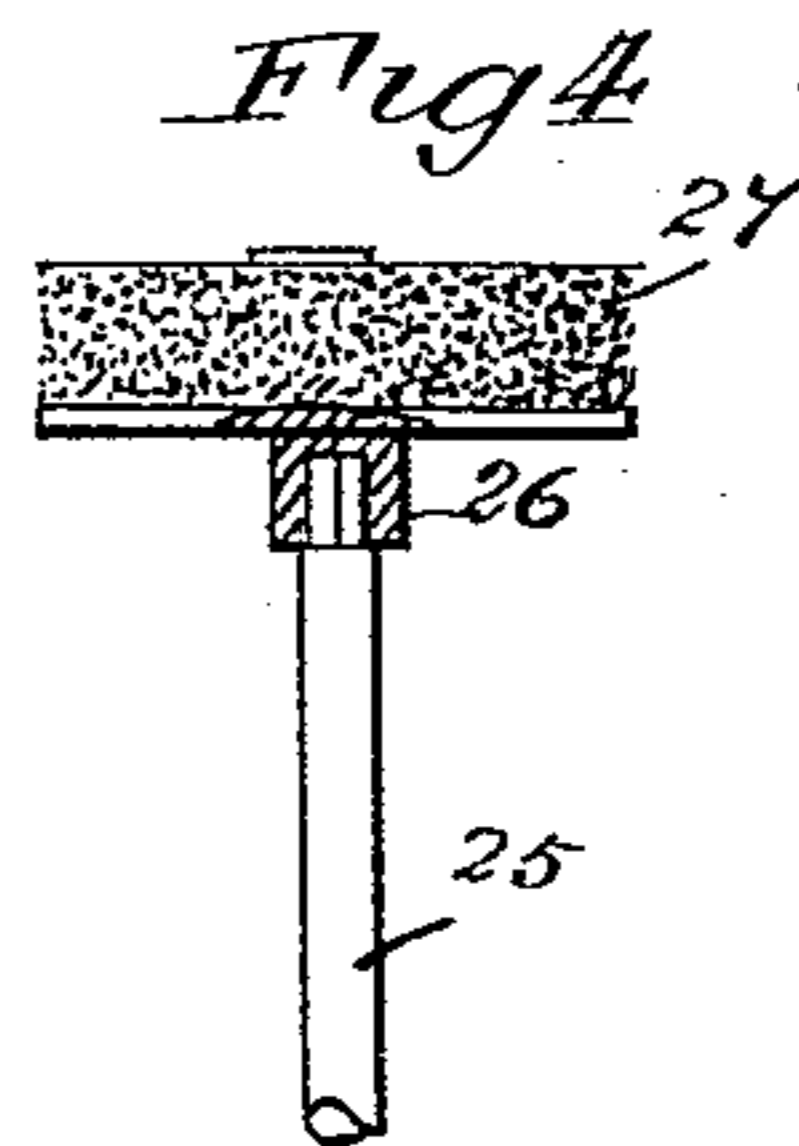
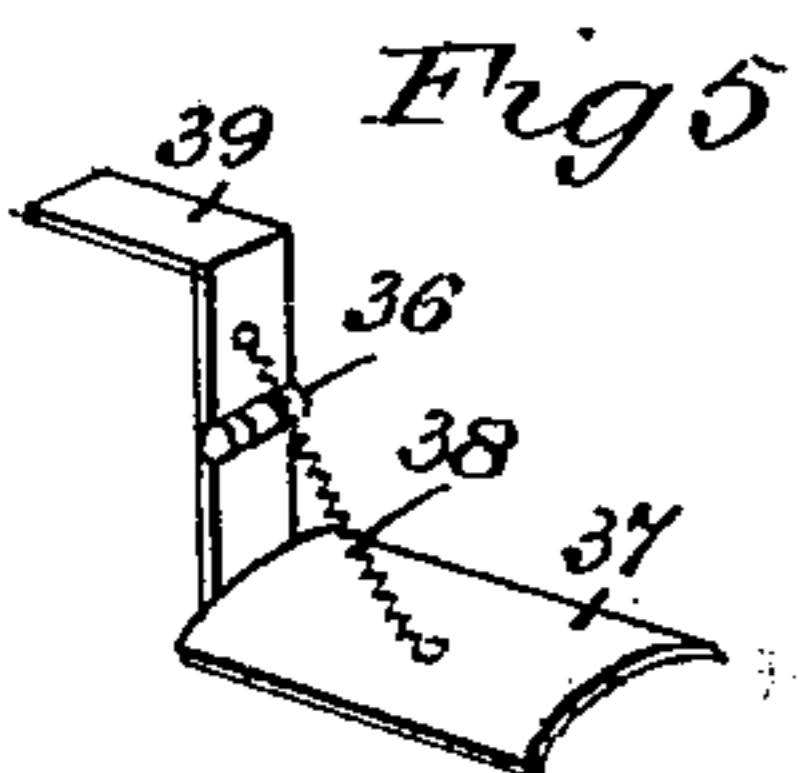
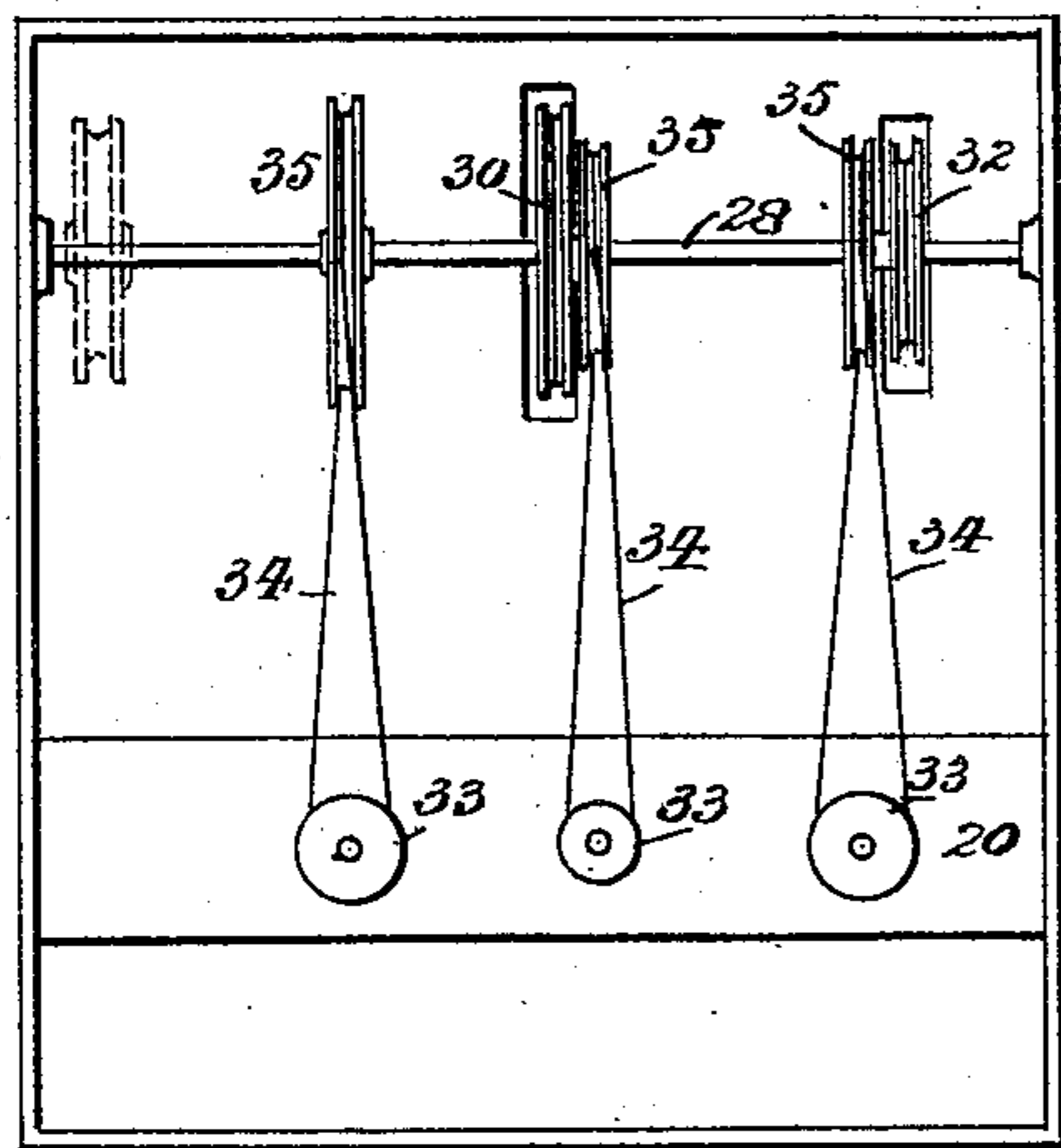
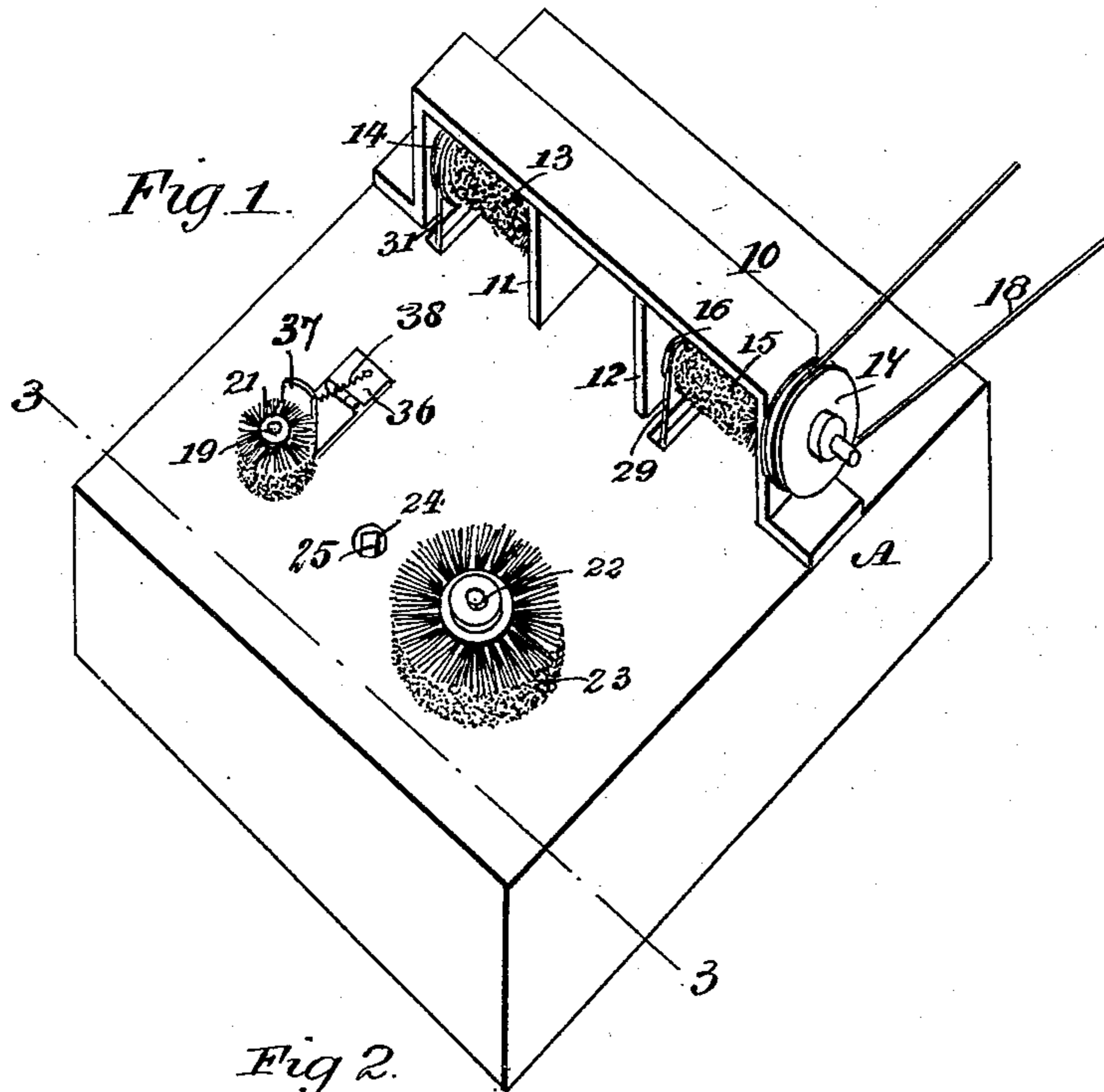


(No Model.)

E. & G. P. FRAZEE.  
SHOE BLACKING AND POLISHING MACHINE.

No. 496,050.

Patented Apr. 25, 1893.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EDWIN FRAZEE AND GEORGE PURL FRAZEE, OF HOLDEN, MISSOURI.

## SHOE BLACKING AND POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 496,050, dated April 25, 1893.

Application filed August 31, 1892. Serial No. 444,682. (No model.)

*To all whom it may concern:*

Be it known that we, EDWIN FRAZEE and GEORGE PURL FRAZEE, of Holden, in the county of Johnson and State of Missouri, have  
5 invented a new and Improved Shoe Blacking and Polishing Machine, of which the following is a full, clear, and exact description.

Our invention relates to an improvement in shoe-blackening and polishing machines, and has  
10 for its object to provide a machine of simple, durable and economic construction, through the medium of which the dirt may be cleaned from a boot or shoe to be polished, the blacking placed upon the boot or shoe, and the article then efficiently and brilliantly "shined."

Another object of the invention is to construct the machine in such a manner that the daubers, cleaner and polishers may be brought  
15 into contact with every part of the boot or shoe, and also to so construct the machine that the boot or shoe may be cleaned either upon or off of the foot of the wearer.

The invention consists in the novel construction and combination of the several parts,  
25 as will be hereinafter fully set forth and pointed out in the claims.

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

Figure 1 is a perspective view of the machine. Fig. 2 is an inverted plan view. Fig. 3 is a vertical transverse section practically  
35 on the line 3—3 of Fig. 1. Fig. 4 is a detail view of the cleaning brush, showing the manner in which it is connected with its spindle; and Fig. 5 is a detail perspective view of the device adapted to supply blacking to the  
40 daubers.

The body A of the machine is of box-like structure, closed at the top, sides and ends but preferably open at the bottom; and upon the upper face of the box body, near one end a  
45 bracket 10, is located, which extends virtually from side to side. The bracket resembles somewhat a yoke, and vertical partitions extend between it and the box body, the partitions being arranged one at each side of the

center of the bracket, and they are designated 50 as 11 and 12.

Between the partition 11 and the outer end of the bracket the spindle of a brush 13, is journaled. The brush is preferably of a circular pattern and acts as a dauber, as it is intended to apply by it the blacking to the boot or shoe to be polished. Near its outer end the spindle of this brush 13 is provided with an attached pulley 14. A similar brush 15 has its spindle journaled in the partition 12  
55 and the opposite outer end of the bracket, this latter brush being adapted as a polishing brush; and the spindle of the polishing brush 15 carries a small pulley 16 at one end, and a driving pulley 17 at the opposite end to which  
60 power is applied by means of a belt 18 when a motor is employed in connection with the machine.

At the front of the box opposite the dauber, a spindle 19, is journaled vertically in the  
70 box body, the spindle being made to pass at its lower end through a base beam 20 in the box body, as shown in Fig. 3. This spindle extends above the box body and carries a brush 21, also preferably of a cylindrical pattern, and this brush is also adapted for use as a dauber and is employed to apply the blacking to those parts of the boot or shoe that can not be reached by the cylindrical brush 13. A second vertical spindle 22, is journaled in the  
75 box body in front of the polishing, horizontally located brush 15, the journaling of the spindle 22 being the same as that of the spindle 19; and the spindle 22, carries at its upper end a large brush 23, to polish those portions of the  
80 boot or shoe that can not be acted upon by the brush 15.

Between the brushes 21 and 23 an opening 24, is produced in the upper face of the box body, and into this opening the upper end of  
90 a third vertical spindle 25, extends, the lower end of the spindle being journaled in the base beam 20 of the box body; and the upper portion of the spindle may be supported in any approved manner. This spindle is square  
95 at its upper end and is adapted to receive a socket 26, fast upon the under face of a brush 27. The brush 27, is adapted for use in clean-

ing dust or dirt from the boots or shoes, and when required is placed upon its spindle 25; but when the shoes are to have blacking applied thereto, and are to be polished, the brush 27, is removed, as the boot or shoe is placed upon the box body between the two brushes 21 and 23.

Within the box body, beneath that portion of it covered by the bracket 10, a transverse shaft 28, is journaled, and this shaft is driven by a belt 29, passed over the pulley 16 of the polishing brush 15, down through the opening in the box body and over a pulley 30, secured upon the shaft 28; and motion is communicated to the dauber 13 by means of a belt 31, which is passed over its pulley 14 and over a pulley 32, secured upon the shaft 28. The lower ends of all of the vertical spindles have pulleys 33, attached thereto; and these spindles are driven from the shaft 28 by means of belts 34, which are passed over the pulleys 33, and over pulleys 35, secured upon the said shaft 28. We desire it to be understood that the vertical spindles may be driven at different rates of speed, which result may be accomplished by increasing or diminishing the size of their driving pulleys.

The blacking is applied to the daubers through the medium of devices shown in detail in Fig. 5, and the said devices consist of a base portion 36 and a carrier section 37, the carrier section being attached to the base section either fixedly or removably. The carrier section is preferably semi-circular in cross section, and upon its concaved face, which is presented to the daubers, the blacking is applied in any approved manner. The base section 36, is in two parts, and the parts are connected by a hinge. A spring 38, is attached to the carrier section and to the rear or outer member of the base, the springs acting normally to hold the carriers out of engagement with the brushes.

The device when applied to a brush 19 upon the vertical spindle, has the rear member of its base portion, or that member to which the spring is secured, attached firmly to the upper face of the box body, as shown in Fig. 1; and when the blacking is to be applied to the brush the carrier is drawn downward to the position shown in Fig. 1, against the tension of the spring 38.

The brush 13, has its blacking-applying device located over it, and in this form of the device the base is somewhat L-shaped or angular, the rear member having an extension 39, arranged at a right angle to it; and by means of this extension, which is fast to the outer member, the device is attached to the under surface of the bracket 10. The spring 38, of this form of the device, normally holds the carrier out of engagement with the brush, and it is forced down to such engagement in any approved manner, but usually through the medium of a rod 40, which is attached

to the back of the carrier and is carried upward through the bracket, as shown in Fig. 3.

The horizontally-located brushes are adapted to apply the blacking and polish the upper and toe surfaces of the boot or shoe, while the vertically-arranged brushes are designed for applying blacking to and polishing the sides, edges, heel and back portion of the shoe.

Power may be applied to the machine in any approved manner.

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

1. A machine for polishing and cleaning boots and shoes, comprising a base, horizontal brushes located above the base, one adapted as a dauber and the other as a polisher, vertical brushes located in front of the horizontal brushes, blacking carriers arranged adjacent to the vertical and horizontal daubers, spring controlled and normally held out of engagement therewith, a driving mechanism whereby when one brush is revolved all are rotated, as and for the purpose specified.

2. In a machine for cleaning and polishing boots and shoes, the combination, with a box body, a driven shaft located within the same, vertical spindles journaled in the box body near its forward end, and brushes carried by the upper ends of said vertical spindles, one brush serving as a dauber and the other as a polisher, of a dauber and polishing brush horizontally journaled above the upper surface of the body at the rear of the vertically-located brushes, belts connecting the driving shaft with the vertical spindles, a belt connecting the driving shaft with the spindle of one of the horizontal brushes, a driving mechanism connected with one end of the spindle of the opposite horizontal brush, and a belt connection between said spindle and the driven shaft, and blacking carriers located adjacent to the daubers, substantially as shown and described.

3. In a machine for cleaning and polishing boots and shoes, the combination, with a body or stand, vertically arranged spindles carrying brushes at their upper ends and journaled in the body, one serving as a dauber and the other as a polisher, and a bracket provided with intermediate supports secured to the upper surface of the body or stand, of horizontally-arranged brushes journaled in the bracket, one in front of the polishing brush and one also in front of the daubing brush, a power mechanism applied to one of the brushes, a power-transmitting mechanism connecting the driven brush with the other brushes, blacking carriers arranged adjacent to the vertical and horizontal daubing brushes, each of said carriers being provided with a hinged base and with springs connecting them with the fixed section of the base, a spindle located intermediate of the vertical

brushes, and a brush in removable engagement with said spindle, said brush being adapted for use as a cleaning brush, as and for the purpose specified.

- 5 4. In a shoe polishing machine, the combination with a revolving brush, of a blacking applying device, consisting of a base portion formed of two hinged sections, a carrier sec-

tion secured to the base section, and a spring secured to the carrier and to the base section, 10 substantially as described.

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GEORGE PURL FRAZEE.

Witnesses:

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W. S. DUNHAM.