

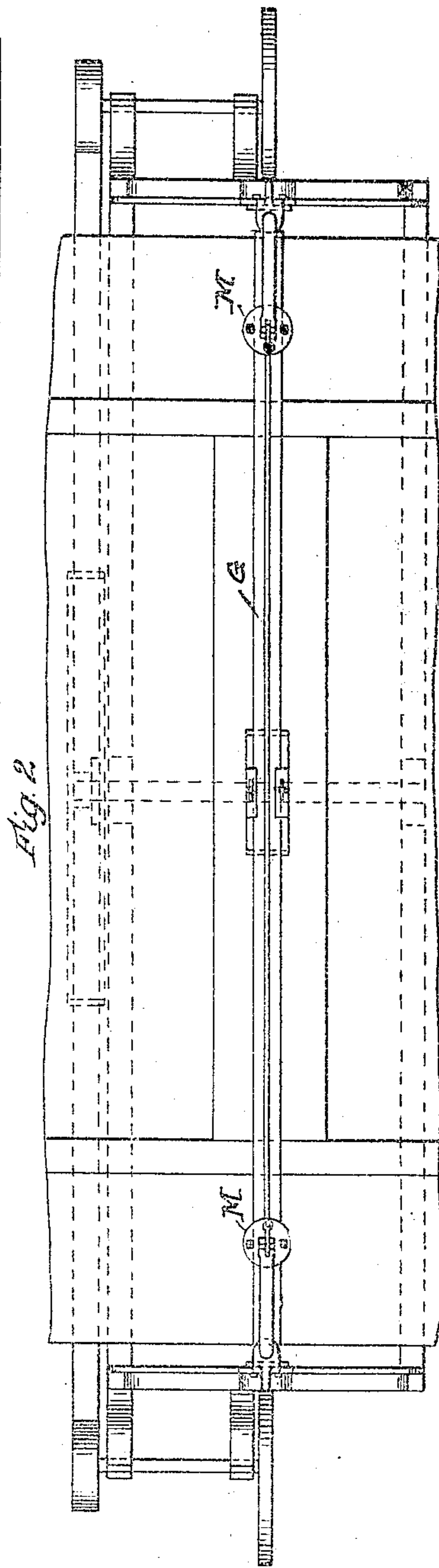
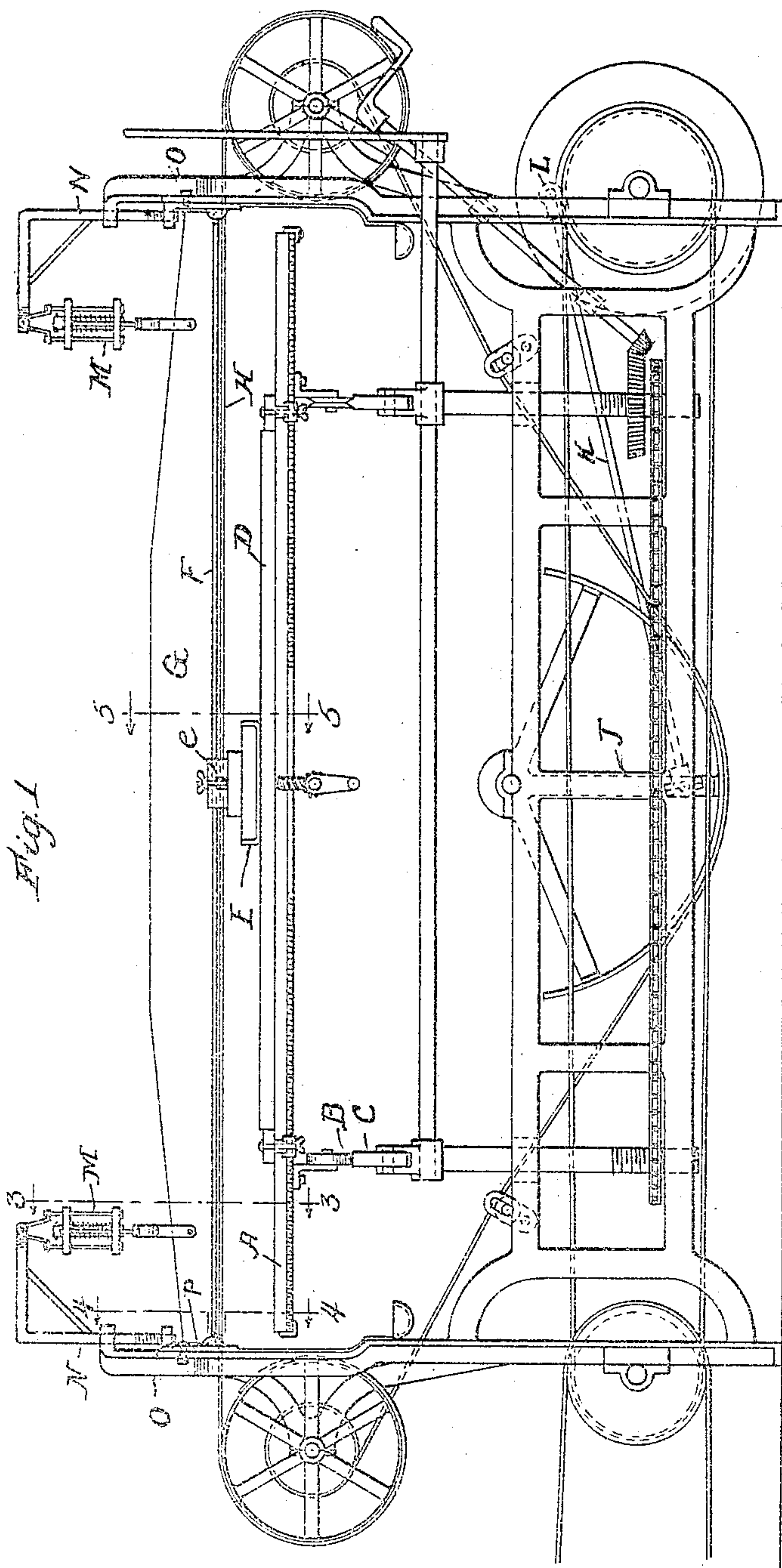
No. 778,470.

PATENTED DEC. 27, 1904.

J. H. WITT.
RUBBING OR POLISHING MACHINE.

APPLICATION FILED APR. 28, 1904.

2 SHEETS—SHEET 1.



Witnesses:

Wm. Geiger
J. M. Munday

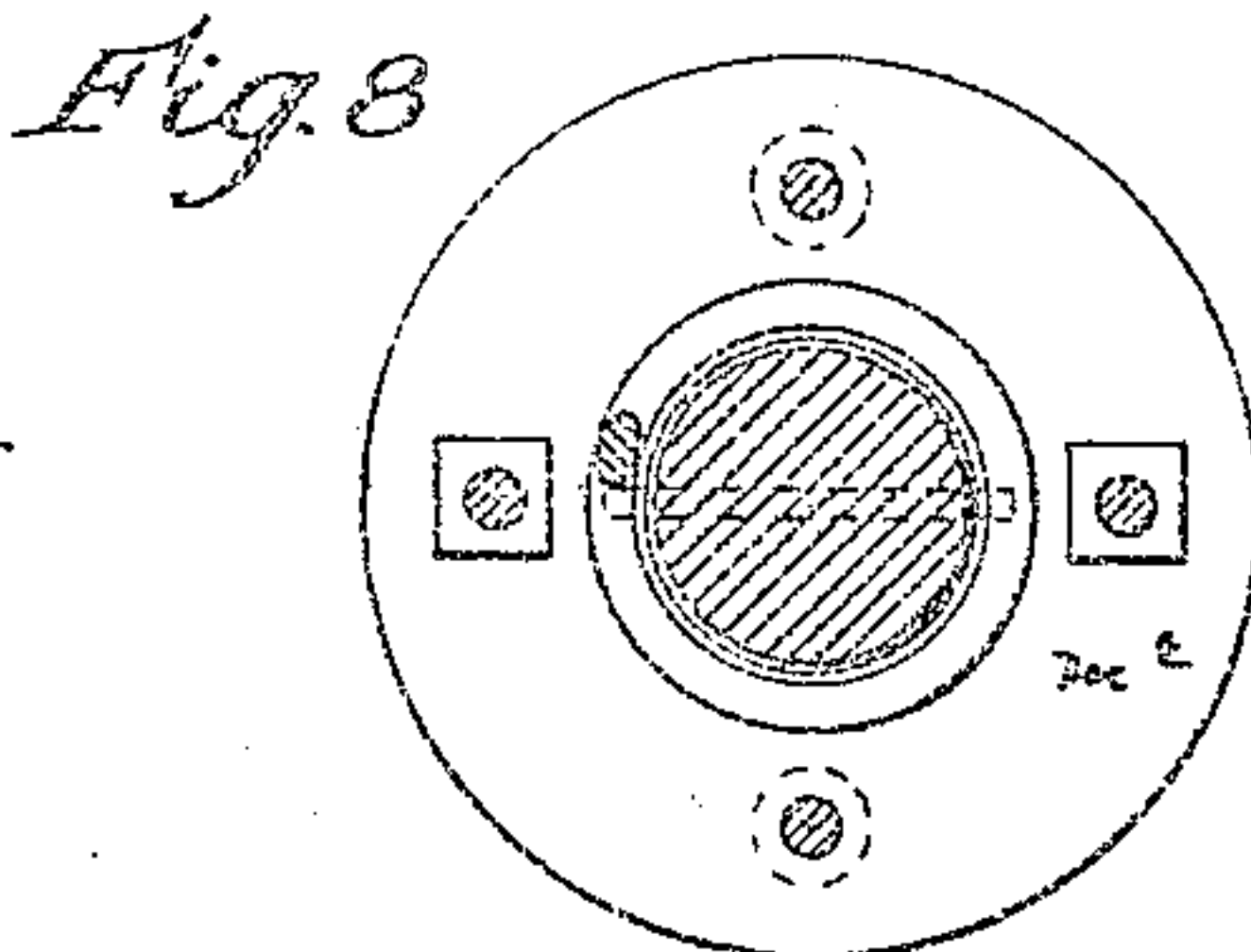
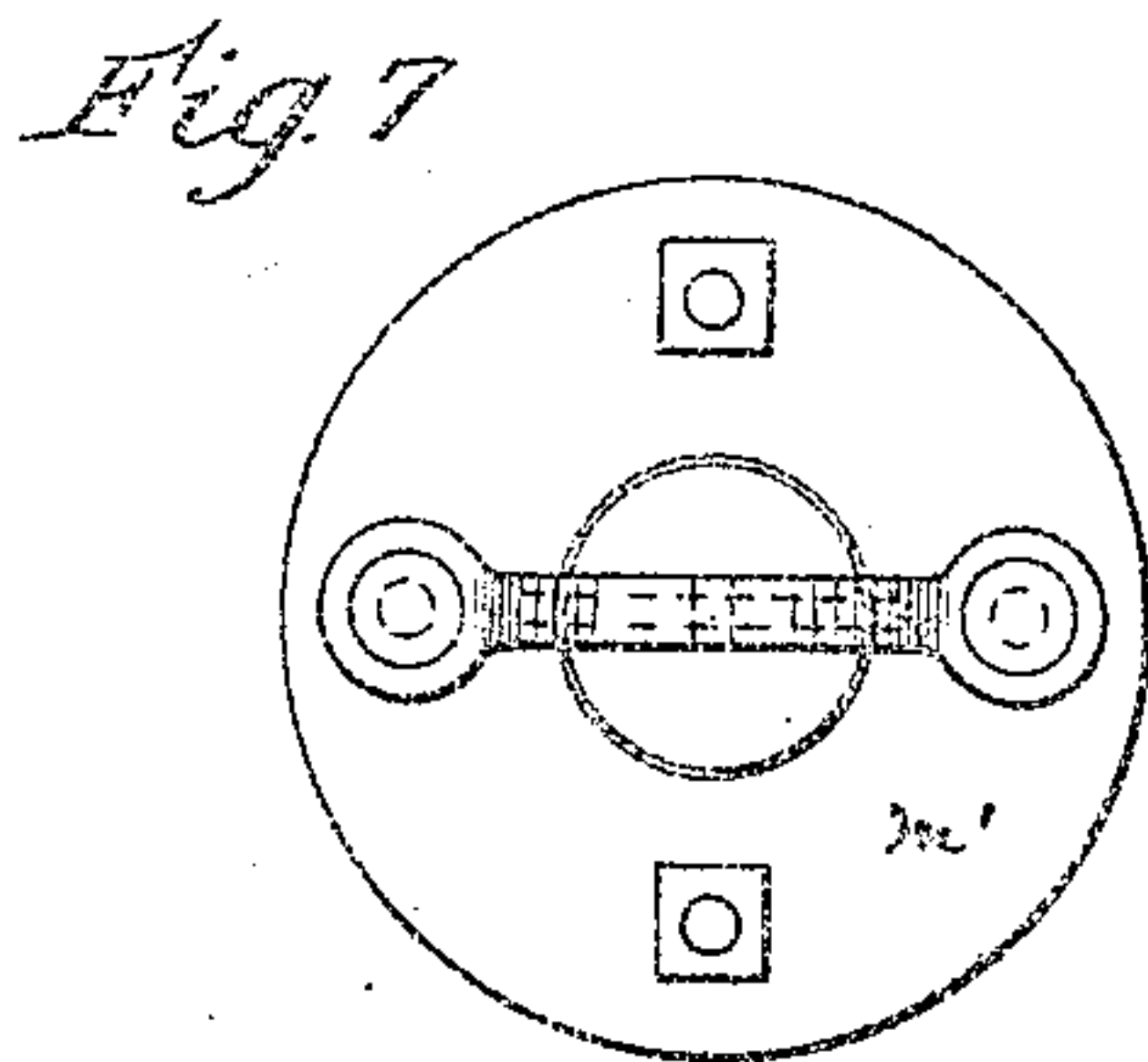
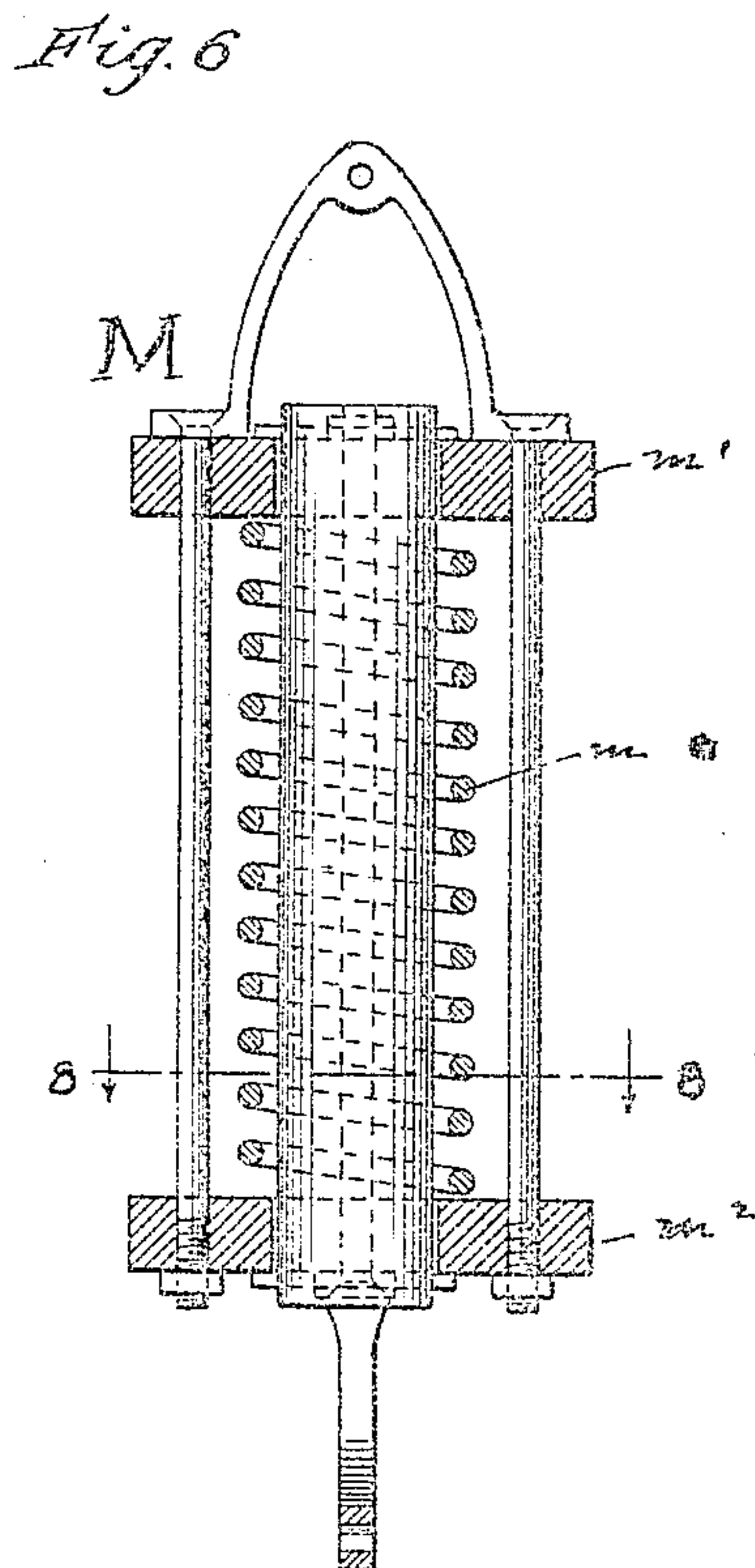
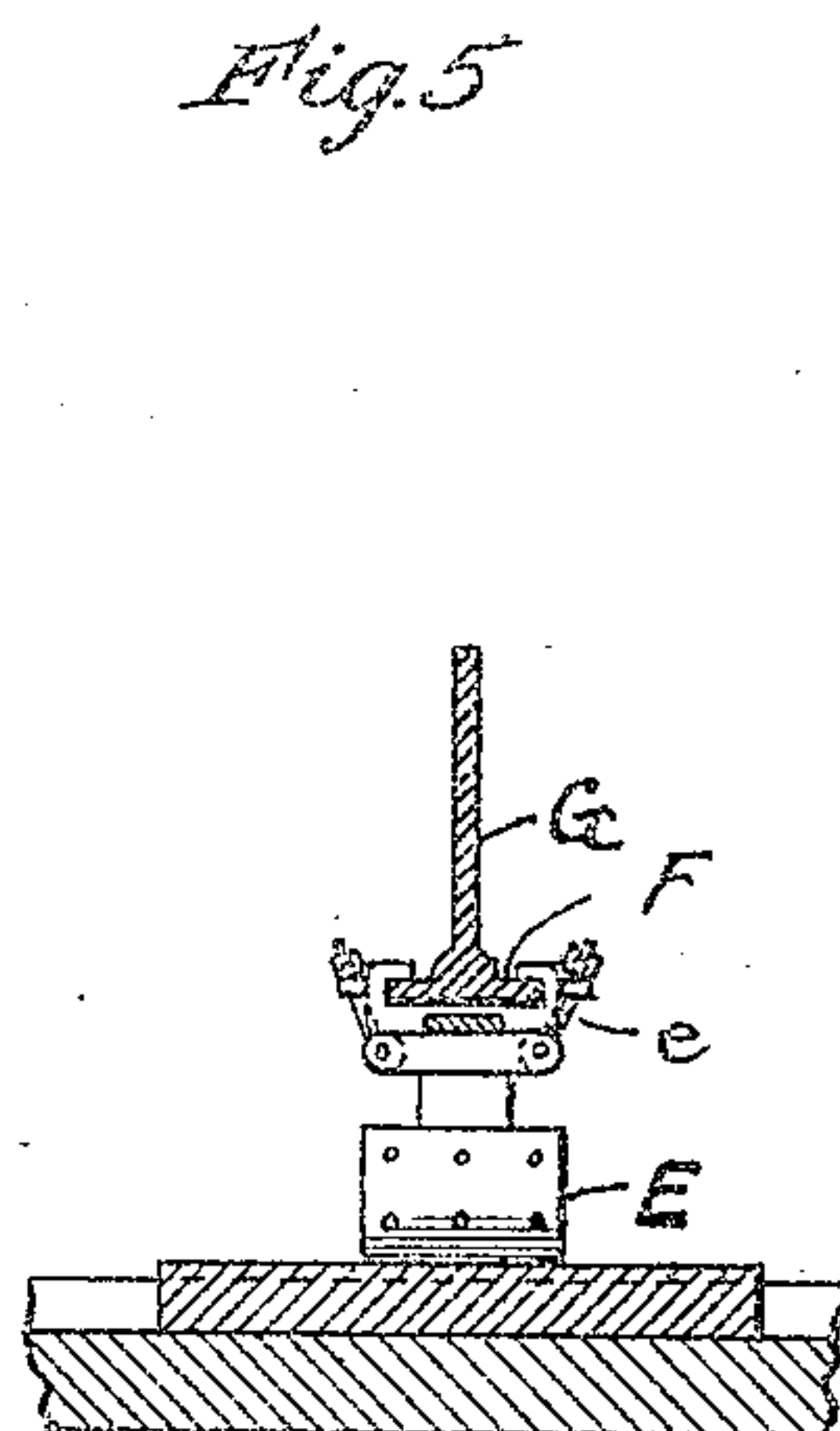
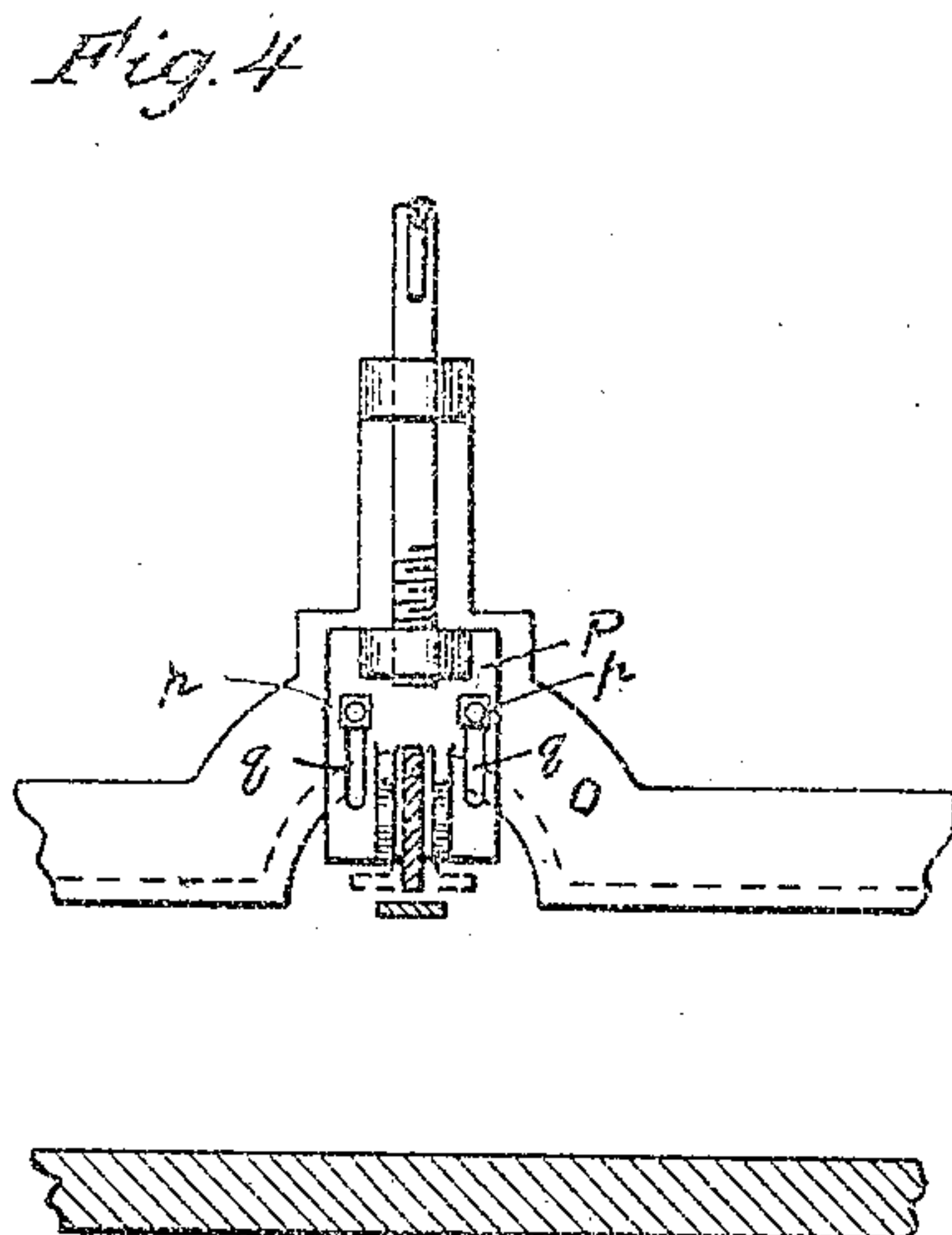
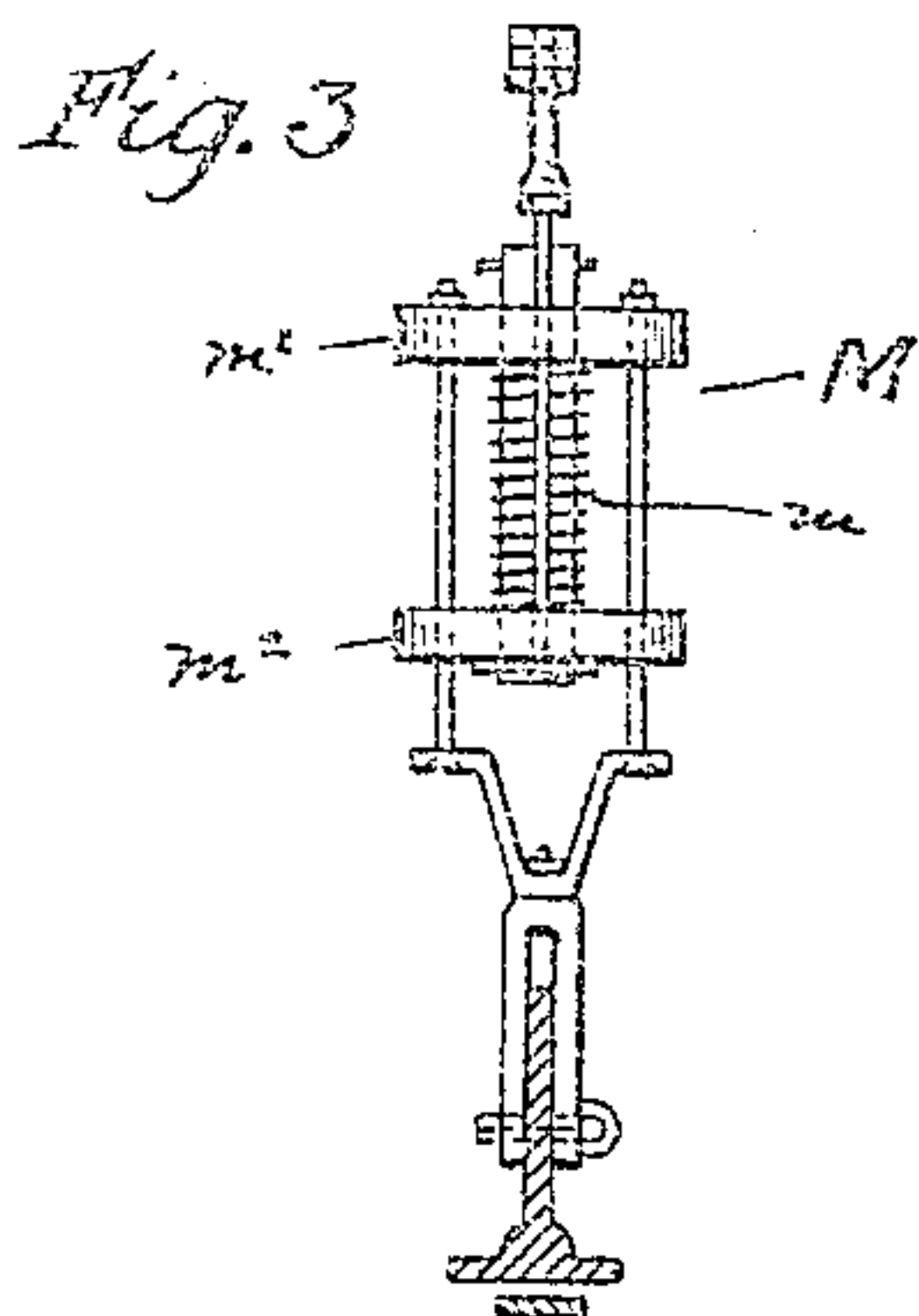
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John Henry Witt
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Attorneys

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2 SHEETS—SHEET 2.



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Wm. Geiger
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UNITED STATES PATENT OFFICE.

JOHN HENRY WITT, OF THORNTON, ILLINOIS.

RUBBING OR POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 778,470, dated December 27, 1904.

Application filed April 28, 1904. Serial No. 205,287.

To all whom it may concern:

Be it known that I, JOHN HENRY WITT, a citizen of the United States, residing in Thornton, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Rubbing or Polishing Machines, of which the following is a specification.

This invention relates to improvements in machines for rubbing or polishing plane surfaces—as, for example, varnished wooden parts of piano-cases and like things.

The object of the invention is to so contrive a machine that in case there shall be, as often happens, any endwise curvature in the piece of wood the surface of which is to be polished the rubber of the machine will follow such curvature and bring an approximately equal rubbing-pressure throughout.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation, and Fig. 2 a top or plan view, of the rubbing or polishing machine provided with this invention. Fig. 3 is a section on the line 3 3 of Fig. 1; Fig. 4, a similar section on the line 4 4 of Fig. 1, and Fig. 5 a similar section on the line 5 5 of Fig. 1. Fig. 6 is a side sectional elevation of one of the supporting-springs. Fig. 7 is a top or plan view of the same, and Fig. 8 is a vertical section of the same on the line 8 8 of Fig. 6.

The machine embodying the invention illustrated in the accompanying drawings is in its general features a well-known one and may be built in several forms. The form which I have chosen to illustrate is that shown in the prior patent to William J. Maddox, No. 650,407, dated May 29, 1900, and although my invention may be applied to a variety of machines of this general character the Maddox machine will serve to illustrate and explain it as well as any other. The general requirements of this class of rubbing or polishing machines are that they shall present some form of table upon which the work is to be laid and clamped, said table being so mounted upon a carriage that the work can be moved across the machine and all parts of it successively brought under the action of the rubber. It should also comprise a rubber device sliding upon a longitudinal guide-beam supported

above the work and means, as a belt, for reciprocating the rubber lengthwise of the work.

In the accompanying drawings, A is the table, mounted by rollers B on the tracks C in such manner that the piece of wood D to be polished may be fed across the machine.

E is the rubber of the usual construction, consisting of a block or pad to receive and retain the polishing material. This rubber at its upper portion by the groove *e* surrounds the track F of the beam G.

H is the usual band attached to the rubber and caused to reciprocate by the rock-wheel J, actuated by the pitman K from the crank L.

All of the mechanism thus far described is fully set forth in the Maddox patent. I have found by experience that in use of such a machine where there is curvature from end to end of the piece of wood D operated upon that this produces a difference of pressure of the rubber on the different parts of the surface, with the result that at the higher portions the varnish will be rubbed too deep and sometimes entirely removed. It is to overcome this unequal action of the machine and to adapt it to successful use upon surfaces slightly curved endwise that I have applied the present improvement, which improvement consists in suspending the beam G at each end from the framework of the machine by a spring-suspender M. The beam G is free to move up and down, being held down by its own weight and held up by the two springs. The springs are connected by brackets N to the framework O of the machine by means of an adjustable attachment P, (see Fig. 4,) supported on said frame by bolts *p*, passing through slots *q*.

By reference to Fig. 6 it will be seen that the spring-support M in the form I have chosen to illustrate the same consists of a barrel and collapsible cage containing the compression coil-spring *m* compressed between the top and bottom pieces *m'* *m''*. A compression-spring is a little better and more durable than an extension-spring would be, and for this reason I prefer it.

Having clamped the board to be rubbed and polished on the table and having adjusted the beam G and the table A so that a suitable rub-

bing-pressure will exist between the rubber
and the surface of the board, the mechanism
is started and the rubber caused to traverse
the surface from end to end of the board upon
5 the table, and said table is fed slowly across
this path to bring all parts under the influence
of the rubber. Should there now chance to
be any endwise curvature in the board, the
spring-supports M M will permit the rubber
10 to accommodate itself to such curvature with-
out undue pressure and without wearing away
the varnish unequally.

I claim—

In a rubbing or polishing machine, the com-
bination with the bed for containing the 15
work, of a reciprocatory rubber, a guide-beam
for said rubber and spring-supports for sup-
porting said guide-beam upon the frame of
the machine, substantially as specified.

JOHN HENRY WITT.

Witnesses:

H. M. MUNDAY,
EDW. S. EVARTS.