

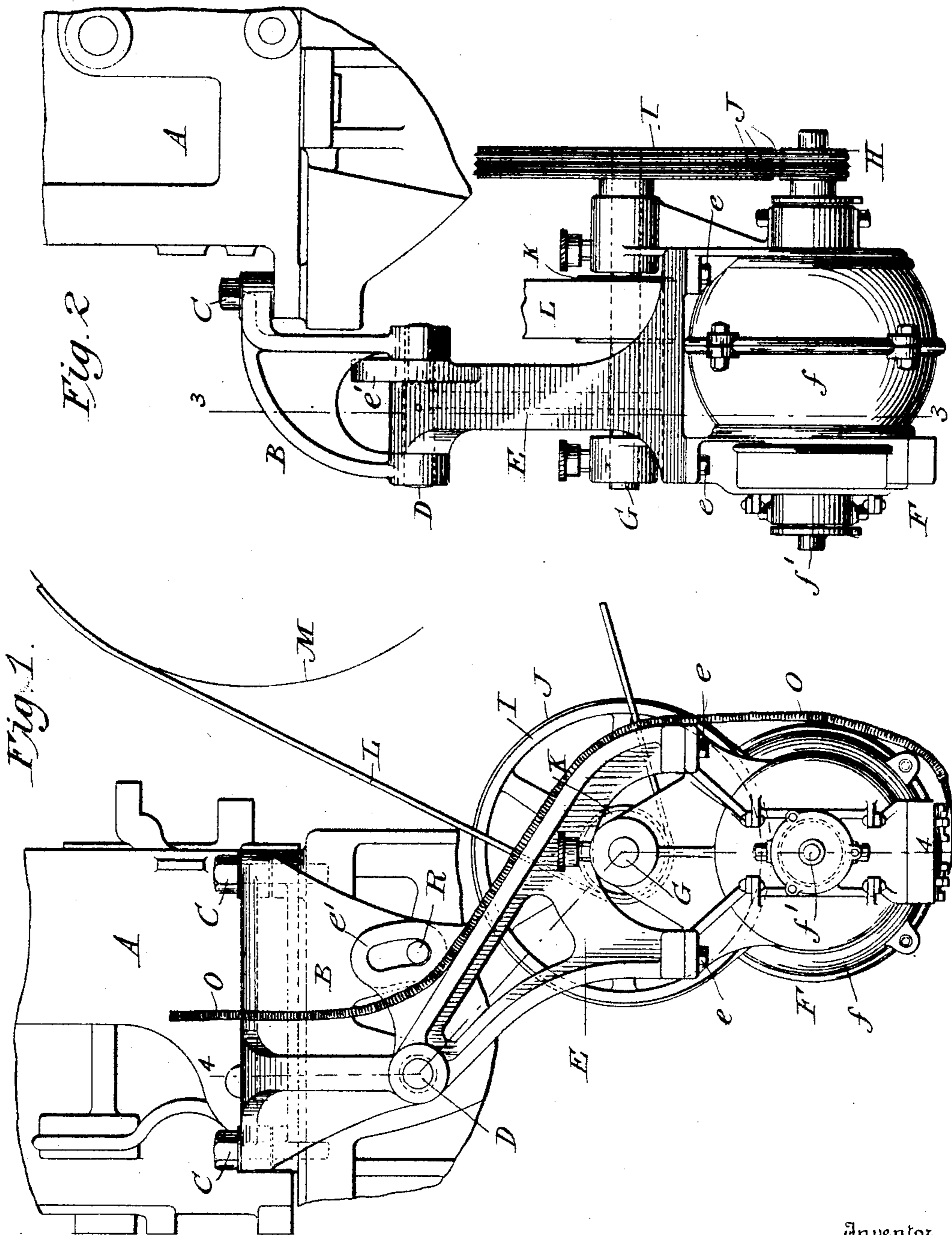
No. 799,613.

PATENTED SEPT. 12, 1905.

M. W. MOREHOUSE.
MOTOR ATTACHMENT FOR LINOTYPE MACHINES.

APPLICATION FILED JAN. 10, 1905.

2 SHEETS—SHEET 1.



Witnesses

Clarence P. Hollingsworth
a. m. & Kennedy

Inventor

M. W. Morehouse

By

Philip T. Dodge

Attorney

No. 799,613.

PATENTED SEPT. 12, 1905.

M. W. MOREHOUSE.
MOTOR ATTACHMENT FOR LINOTYPE MACHINES.

APPLICATION FILED JAN. 10, 1905.

2 SHEETS—SHEET 2.

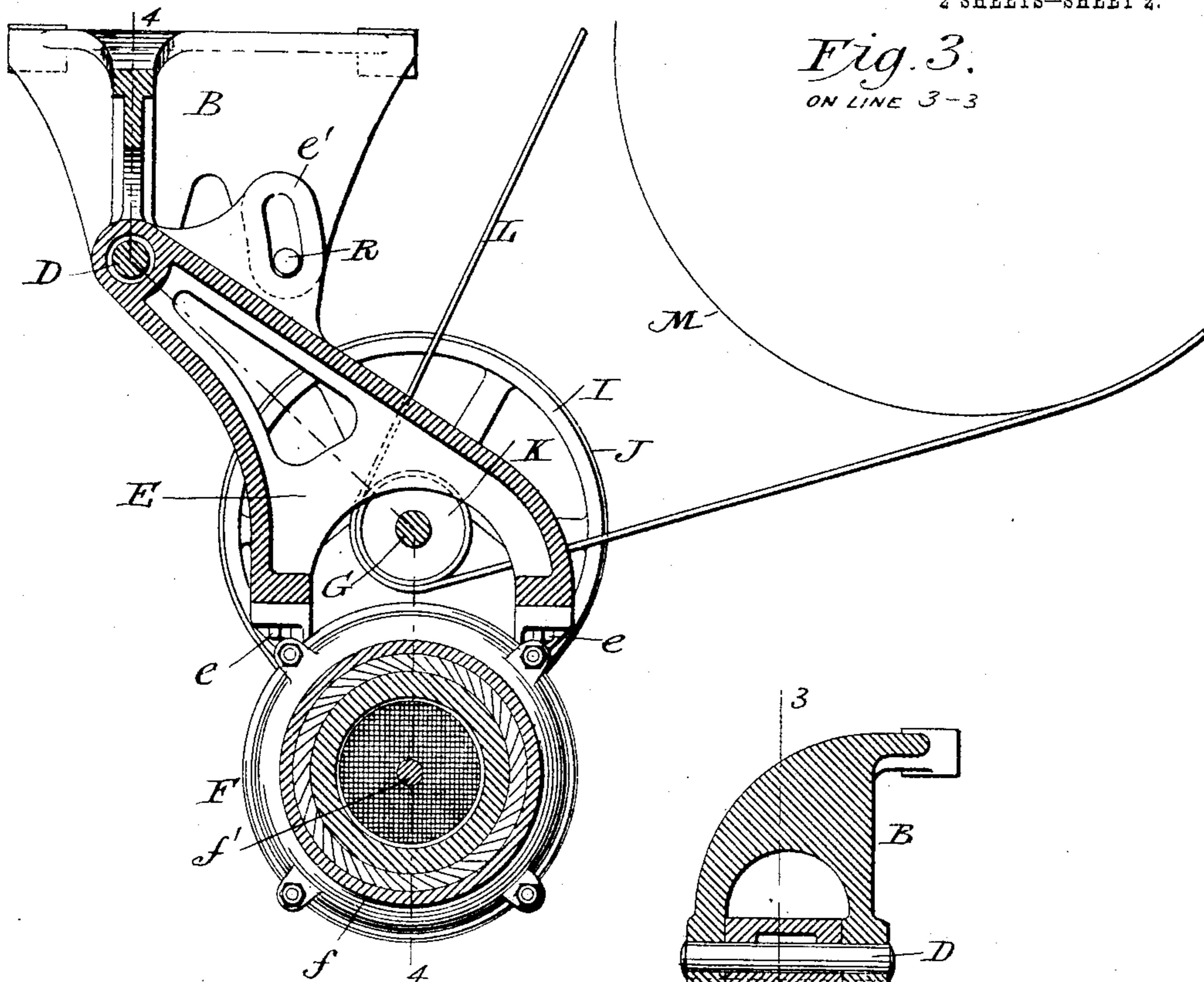
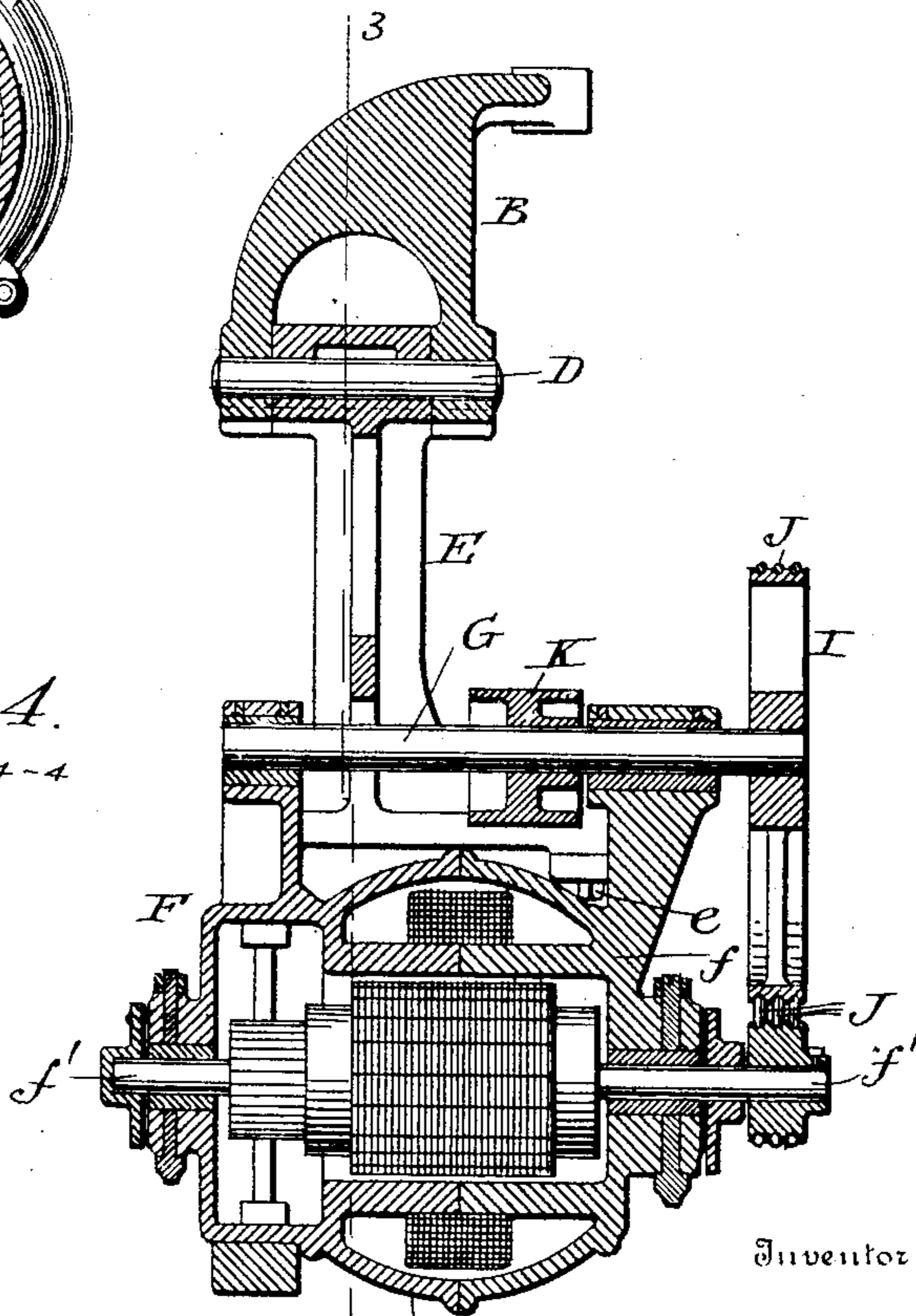


Fig. 4.
ON LINE 4-4



Witnesses

Shirley P. Hollingsworth
A. M. E. Kennedy

M. W. Morehouse
Philip T. Dodge
Attorney

UNITED STATES PATENT OFFICE.

MELVIN W. MOREHOUSE, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

MOTOR ATTACHMENT FOR LINOTYPE-MACHINES.

No. 799,613.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed January 10, 1905. Serial No. 240,418.

To all whom it may concern:

Be it known that I, MELVIN W. MOREHOUSE, of the borough of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Motor Attachments for Linotype-Machines, of which the following is a specification.

My invention relates to an attachment designed for application to commercial linotype-machines of the general organization represented in United States Letters Patent No. 557,000 for the purpose of imparting from an electrical motor running at high speed the necessary slow speed to the driving-pulley of the machine through silently-acting belts and pulleys.

It has in view an attachment which may be quickly applied to the existing machines without alteration therein and the automatic maintenance of the proper tension on the driving-belt.

To this end it consists, essentially, in a bracket adapted to be secured to the frame of the machine, a gravitating arm jointed to the bracket and carrying the motor, and preferably two belt-pulleys, one of which is suspended within the belt leading to the machine-pulley, so that the weight of the parts keeps the belt under tension.

The construction and arrangement of parts is such that the attachment is self-contained or unitary in character—that is to say, the gravitating arm carries not only the motor, but also the second shaft, with the necessary speed-reducing pulleys—so that the contrivance as a whole may be applied to a commercial machine without separately adjusting, fitting, or connecting any parts of the attachment.

Referring to the drawings, Figure 1 is a side elevation of my attachment applied to the frame of the linotype-machine. Fig. 2 is an elevation of the same looking from the rear. Fig. 3 is a vertical section on the line 3 3, Figs. 1 and 4. Fig. 4 is a transverse vertical section on the line 4 4, Figs. 1 and 3.

Referring to the drawings, A represents a portion of the main frame of an ordinary linotype-machine.

B is a bracket or casting having an upper horizontal portion adapted to be secured to the frame by bolts C, commonly used therein, and having also a depending forked portion adapted to sustain a horizontal pivot-pin D.

E represents a gravitating frame or arm having its upper end mounted loosely on the pin D and its lower end adapted to receive a horizontal electrical motor F and a horizontal shaft G, lying above the motor. The motor may be of any suitable form or construction. In the form shown it has an external case or shell *f*, containing the field-coil and the armature-bearings, the top of this casing being also provided with arms in which the bearings of the shaft G are seated. The motor-shaft *f'* is provided on one end with a pulley H, containing two, three, or more peripheral V-grooves, and the shaft G is provided on one end with a pulley I, containing a corresponding series of grooves. The pulleys H and I are connected by a series of belts J of round or V form in cross-section. The shaft G is also provided, near its middle and between its two bearings, with a small pulley K. An endless belt L is passed around the pulley K and thence upward around the relatively large driving-pulley M of the machine, the arrangement of parts being such that the belt L, through the pulley G, suspends or sustains the arm E and all the parts therewith above the position to which they would otherwise gravitate. In this manner a portion of the weight of the arm, the motor, and attendant parts is utilized to maintain the proper tension of the belt L.

The amount of strain or tension to which the belt L is subjected may be varied by changing the length of the belt, and thereby the position of the arm E, the shortening of the belt serving to increase the tension.

The motor may be supplied with current through a flexible conductor O, applied as shown or in any other suitable manner.

The rotation of the motor causes the rotation of its pulley H, which transmits motion through the series of belts J to the pulley I, which in turn, through its shaft G, rotates the pulley K, from which motion is transmitted through belt L to the machine-pulley. The arrangement of parts shown permits the machine-pulley to be driven at the required speed—from sixty to seventy revolutions per minute—from a small, light, and cheap motor running at several hundred revolutions per minute.

In applying the attachment to a linotype-machine, it is only necessary to remove the bolts C, seat the bracket B in proper position,

restore the bolts, and thereafter apply the belt L.

In practice it is found that when a series of small belts J are applied as shown they will
5 run satisfactorily month after month without changing their length or making use of tension devices.

It will be observed that the motor-casing is secured to the lower end of the arm E by
10 bolts e. This permits the application of motors wound for any current demanded.

The essence of the invention lies in the combination, with a supporting-bracket, of a gravitating arm carrying a motor, and a pulley
15 driven by a motor and adapted to be suspended within the belt passing to the machine to be driven and also carrying the speed-reducing pulleys and shaft, so that these parts may retain their operative relations notwithstanding
20 the oscillations of the arm. It is manifest that the details may be varied at will, provided that these characteristics are retained.

In order to limit the downward movement

of the arm C and prevent it from accidentally striking the floor, I may adopt a stop device
25 of any suitable character—such, for instance, as the stud R—fixed on the bracket and projecting into a slide e' in the arm E.

Having described my invention, what I claim is—

The motor attachment for a linotype-machine, comprising a bracket B for attachment thereto, a gravitating arm E connected to the bracket by a horizontal axis, a motor secured to the arm and provided with pulley H, the
35 shaft G seated in bearings in the arm and provided with pulleys I and K, and a belted connection between the pulley I and the motor-pulley, substantially as described and shown.

In testimony whereof I hereunto set my
40 hand, this 4th day of January, 1905, in the presence of two attesting witnesses.

MELVIN W. MOREHOUSE.

Witnesses:

W. F. MAIER,

HERMAN F. VOSS.