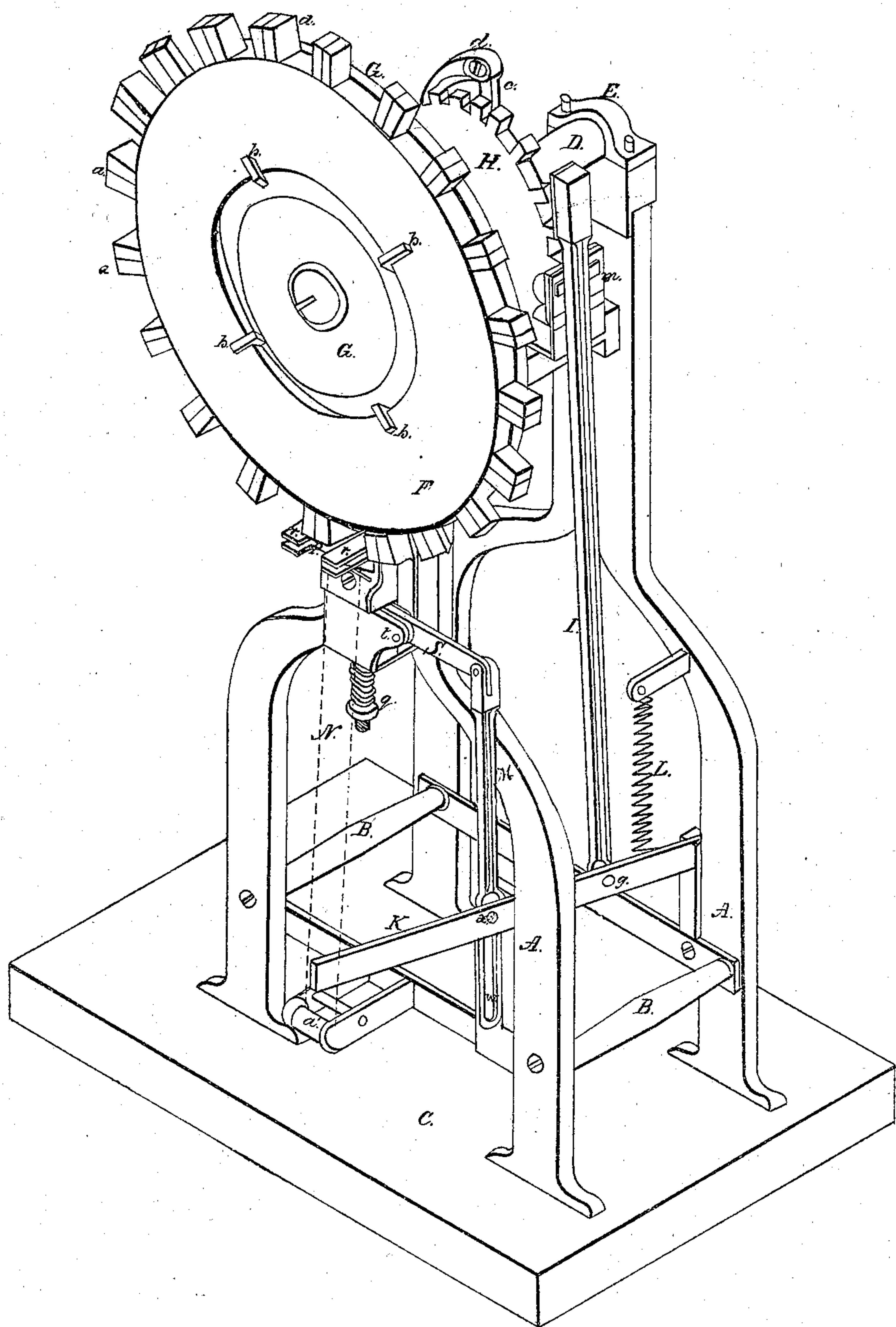


H.S. Taylor Sheet 1 of 2 Sheets
Paging Mach.
N^o 10933. *Patented May 16, 1854.*

Fig. 1.



H. S. Taylor *Sheet 2 of 2 Sheets.*
Paging Mach.
N^o 10933 *Patented May 16. 1854.*

Fig. 2.

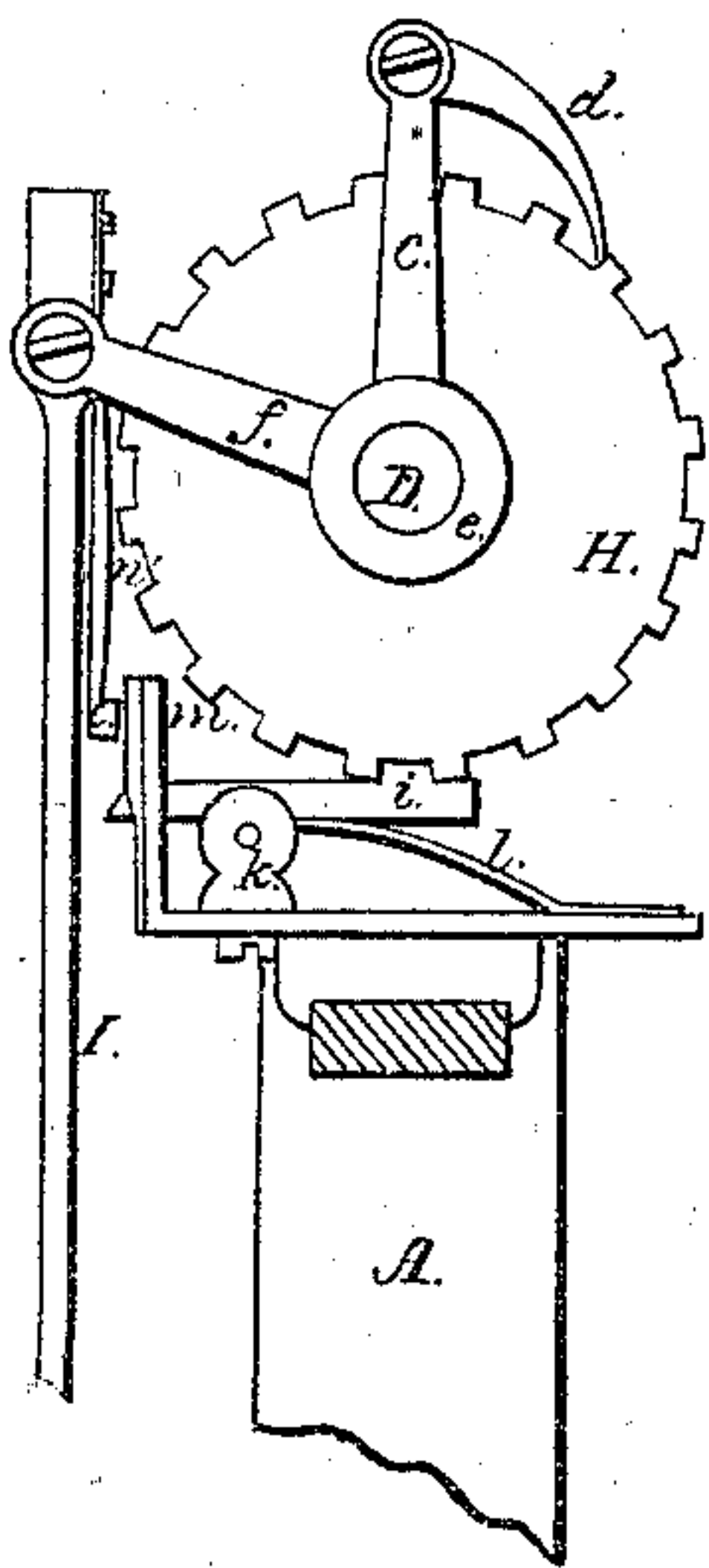


Fig. 3.

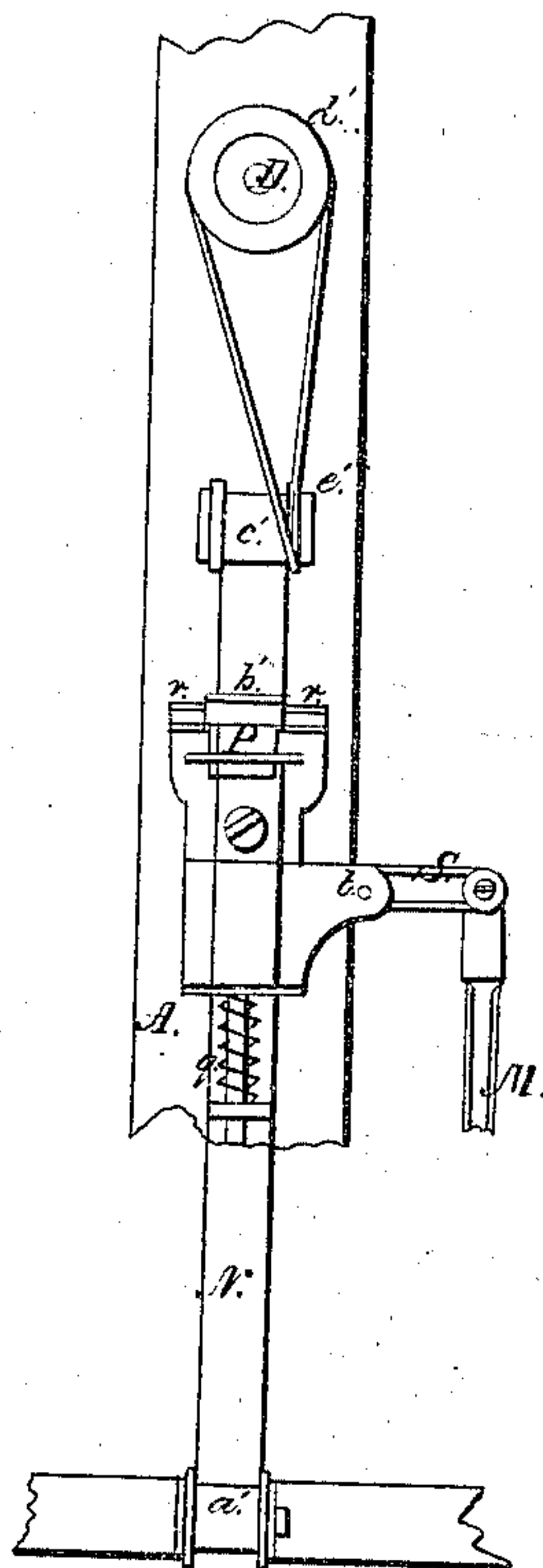


Fig. 4.

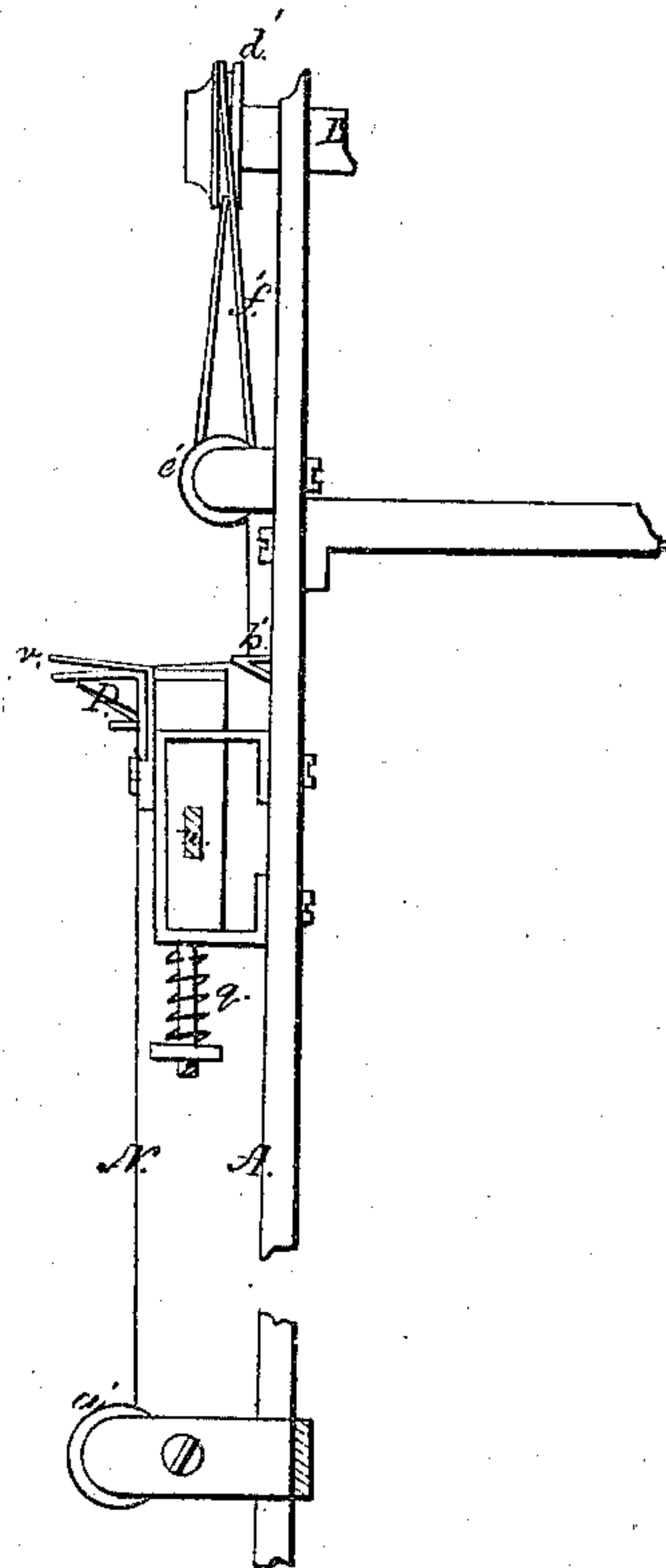
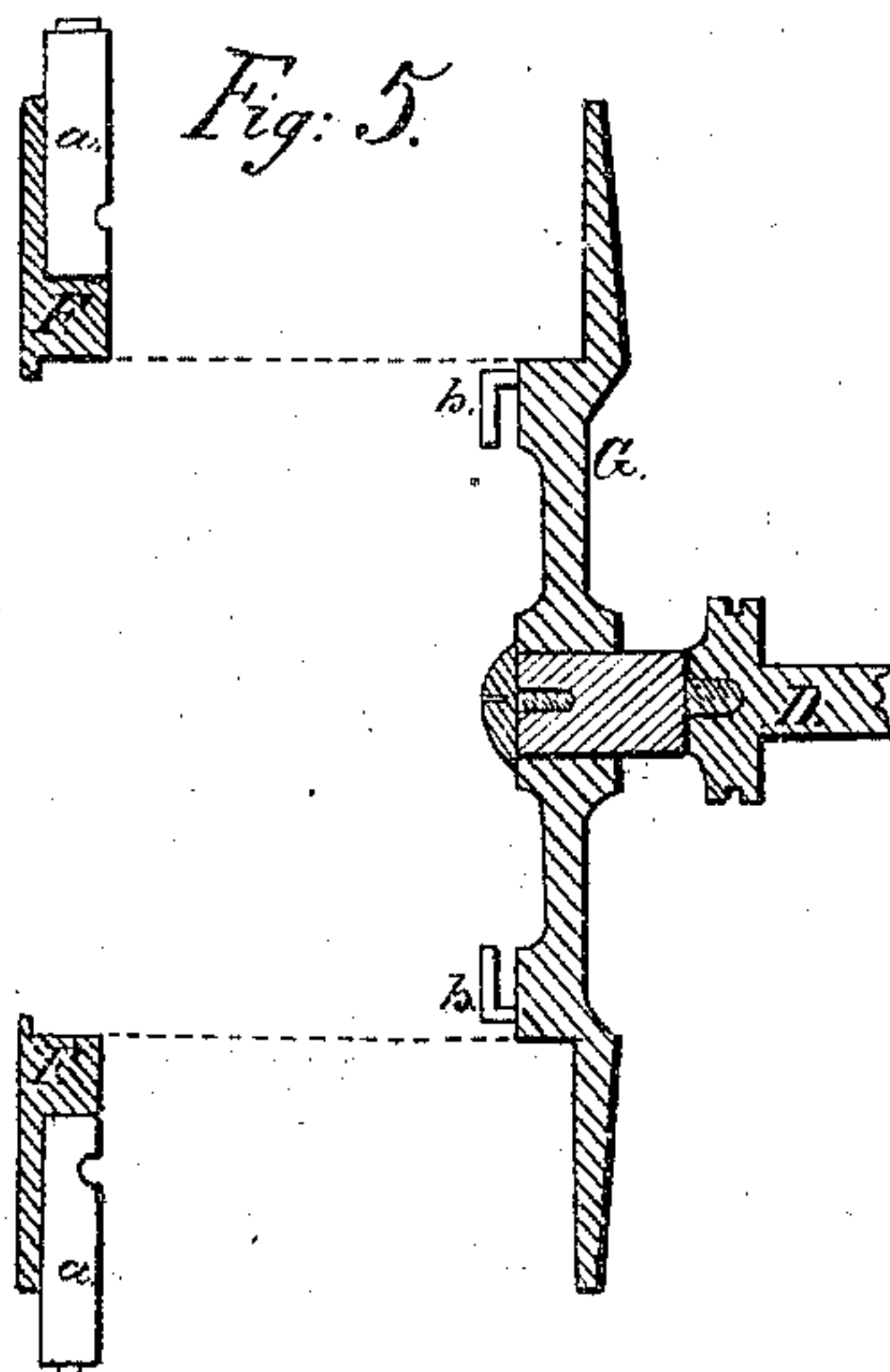


Fig. 5.



UNITED STATES PATENT OFFICE.

HORACE S. TAYLOR, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVED MACHINE FOR PAGING BOOKS.

Specification forming part of Letters Patent No. **10,933**, dated May 16, 1854.

To all whom it may concern:

Be it known that I, HORACE S. TAYLOR, of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Machines for Paging Account-Books; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification.

The machines which have been contrived for this purpose are costly and not within the reach of any but the largest manufacturers.

The object of my invention is to produce a paging-machine of small cost that shall be simple in its construction and easily repaired in case of the breakage or derangement of its parts; and my invention consists in the employment of a revolving disk or cylinder, in the periphery of which are secured common printing-types which may be taken out and replaced by others when desired, whereby I am enabled to make use of figures of various sizes and descriptions, to suit the various sizes and characters of the books to be paged.

To enable others skilled in the art to make use of my invention, I will proceed to describe the method which I have adopted of carrying it out.

Figure 1 is an isometric view of my machine; Figs. 2, 3, 4, and 5, detached views of different parts, which will be referred to hereinafter.

I will first explain the construction of the cylinder or type-carrier which constitutes the basis and main feature of my invention, and then pass to the parts of the machine which are merely subsidiary thereto, giving finally the operation of the complete machine.

A are the standards which carry the operating parts of the machine, and which are connected together by cross-bars B, and secured to a suitable foundation C in any appropriate manner.

D is a shaft which runs in bearings E upon the tops of the standards A. The shaft D carries the type-holder, which is constructed of two parts, as follows:

F (seen in section in Fig. 5) is the outer ring of the holder which contains the cavities which carry the types *a*.

G is the back or confining plate of this

holder, also represented in section in Fig. 5, which is brought up against the plate F, the two being secured together by turning the buttons *b*, as seen in Fig. 1.

The shaft D, and with it the type-holder, is rotated in the following manner: H is a ratchet-wheel upon the shaft D, having peculiarly-formed square-shouldered teeth, the number of these teeth being equal to that of the numbers in the type-cylinder.

c is an arm attached to a ring *e*, which revolves freely upon the shaft D, and which also carries an arm *f*, which is hinged to the upright lever I. This lever is connected with the treadle K at the point *g*, which is retained in the elevated position shown in Fig. 1 by the spring L.

d is a pawl pivoted to the arm *c*, which bears upon the teeth of the ratchet-wheel H, and by the motion of which this ratchet-wheel is rotated.

i is a retaining dog or pawl, with a square tooth calculated to fit between the teeth of the ratchet-wheel, and thus retain it from turning in either direction. This pawl is pivoted at the point *k* and is pressed up to the ratchet-wheel by the spring *l*. One end of this dog passes through a slot in the upright plate *m*, where it is operated in the following manner: *n* is a spring attached to the rod I, having a catch *o* at its lower extremity. As the rod I descends, the catch *o* slips over the inclined end of the dog *i*, and as the rod I ascends the catch *o* raises this end of the dog, the tooth of which is thus disengaged from the ratchet-wheel H the instant before the latter is revolved by the pawl *d*. The type-holder being revolved into proper position, the impression is made upon the sheet in the following manner: *p* is a table or platen upon which the leaf to be printed is laid, it being held between the fingers *r*, and the platen *p* is forced down into the position shown in Figs. 1, 3, and 4 by the spring *q*. *s* is a lever pivoted at *t*, and connected with the shank of the platen *p* at *u*. The other end of the lever *s* is connected with the rod M, which has a slot *w* at its lower extremity. The treadle K has a pin *x*, (seen in dotted lines in Fig. 1,) which enters the slot in the rod M, by which means the latter is depressed at the last instant of the descent of the treadle K, and

thus the platen is raised and the impression is made upon the sheet.

N is an endless band of blotting-paper (represented in the various figures in blue lines,) which is wound upon a roller *a'*, and passes up and over the platen through the guide *b'* and onto the roller *c'*. This band of paper has a slight forward motion as the machine is operated, which is communicated in the following manner: *d'* is a pulley upon the shaft D, from which the band *f'* passes around the pulley *e'* upon the roller *c'*. As the shaft D revolves the band N is slowly fed forward over the upper surface of the platen.

In lieu of arranging the types upon the periphery of a cylinder, as above described, I have in some of the machines which I have built secured them in long clamps, which were fed through as required, by means of a pinion and rack-bar, the object in each case being to use removable types in place of the expensive chain-types heretofore employed.

Operation: The types being arranged in the proper order consecutively within the recesses of the plate F, the plate G is clamped to it by means of the buttons *b*, as described. The leaf of the book to be printed is then inserted between the fingers *r*, so as to lie immediately over the platen *p*. The treadle K is depressed, and the pin *x*, working in the slot *w* of the rod M, raises the platen *p*, and the impression is made, the cylinder remaining clamped in position, the tooth of the dog *i* preventing the ratchet-wheel H from turning in either direction. By the descent of the treadle K the catch *o* is slipped over the end of the dog *i*, and the pawl *d* is retracted to engage another tooth of the ratchet-wheel.

When the treadle is released, it is again raised by the spring L, the platen is caused to descend by the spring *q*, the catch *o* disengages the dog *i* from the ratchet-wheel H, and the pawl *d* revolves this wheel a sufficient distance to bring another number of the types immediately over the platen, and the operation continues as before.

It is evident that if the types be injured or broken they may be instantly replaced by others, which is not the case with those machines which have heretofore been invented for this purpose.

Another advantage resulting from the use of the type-holder operated as above described results from the fact that the impression is given square upon the types, as is the case with an ordinary printing-machine. This cannot be the case where the platen is caused to vibrate round a fixed center, as in some of the machines originated for the purpose of paging books.

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

1. The above-described type-holder, constructed and operating in the manner substantially as set forth.

2. The peculiar combination and arrangement of the spring-catch *o*, the dog *i*, the ratchet-wheel H, and the pawl *d*, whereby the printing-cylinder is held firmly clamped during the operation of printing and is revolved a sufficient distance to bring a new number over the platen, in the manner set forth.

HORACE S. TAYLOR.

In presence of—

T. D. PELTON,
A. L. SOULE.