

J. Henry
Inking App's for Printg Press.
N^o 62032. Patented Feb. 12. 1867.

Fig. 1.

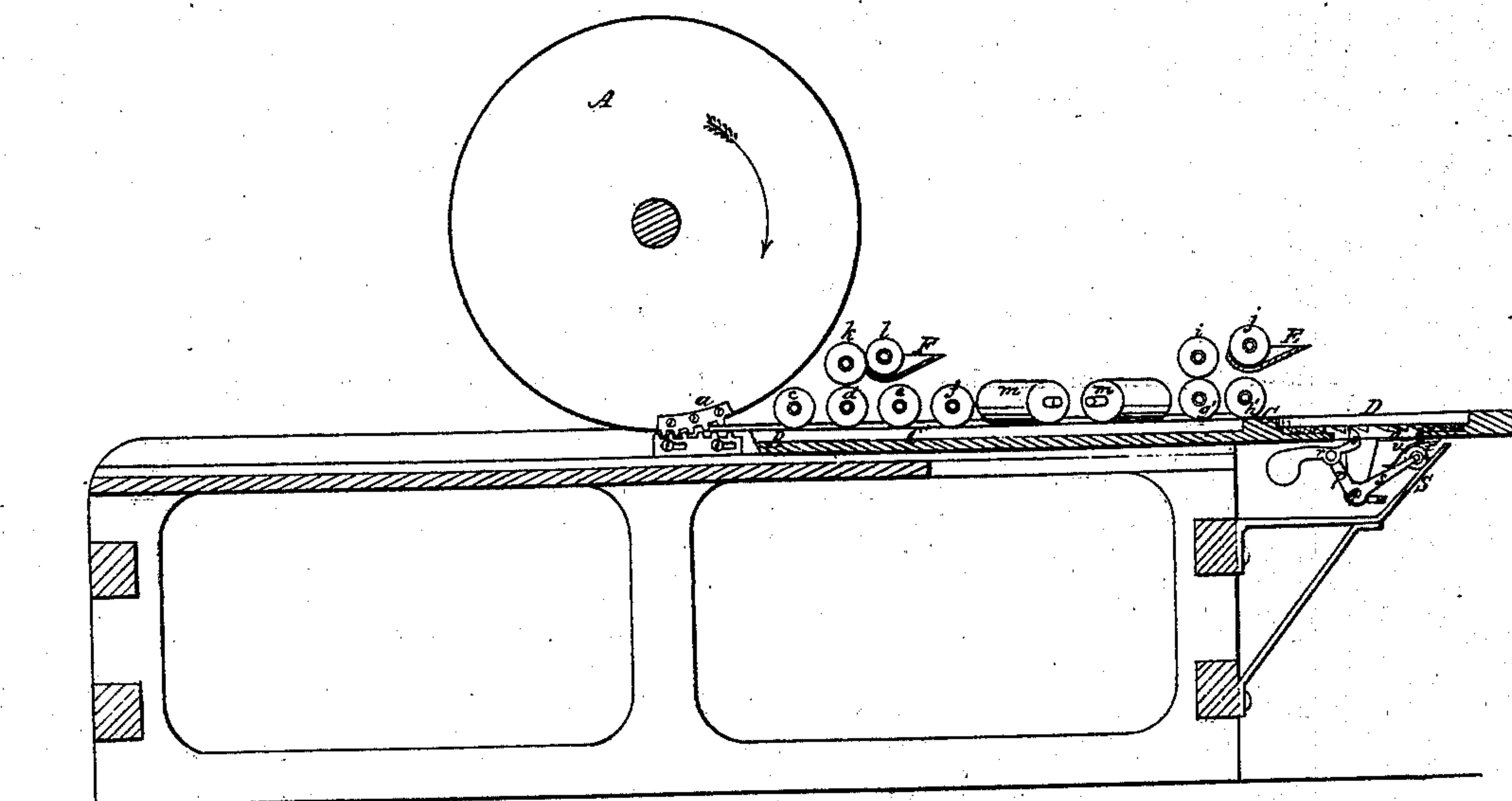
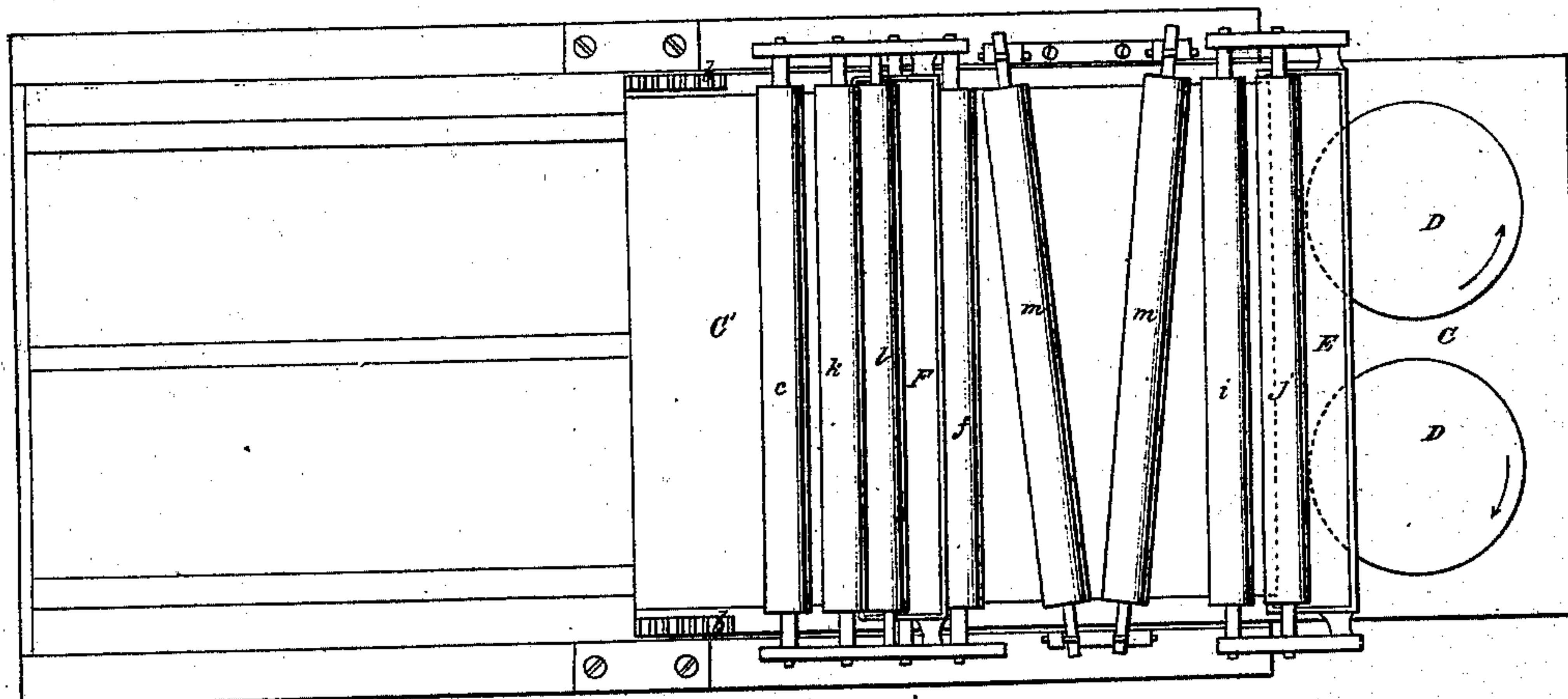


Fig. 2.



Witnesses.

J. M. Coombs,
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Inventor.

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attys.

United States Patent Office.

JOHN HENRY, OF JERSEY CITY, NEW JERSEY.

Letters Patent No. 62,032, dated February 12, 1867.

IMPROVEMENT IN PRINTING PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN HENRY, of Jersey City, in the county of Hudson, and State of New Jersey, have invented a certain new and useful Improvement in Printing Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 is a side elevation of a cylinder press in part only, illustrative of my invention; and

Figure 2, a plan thereof, with the cylinder removed.

Like letters refer to like parts in both figures.

My invention relates to the ink-distributing apparatus, and the nature of it consists in a combination with a table-distributing surface of a peculiar arrangement of disk distributors; also, in a novel mode of operating the disks, said invention embracing a separate fountain to each distributor or system of distributors, for the purpose of dealing out heavy ink in minute quantities. Disks, I am aware, have before been used as distributors, both single revolving ones and a combination of concentric disks, moving in reversed directions, as substitutes for the "French table;" but they do not present the same convenient surface as does a table-distributor, while my improvement possesses the advantages of both systems.

For the information of others whom it may concern, I will now proceed to describe my invention, with reference to the drawing

A represents the cylinder of a Napier press, and B the reciprocating bed or table, both of which may be operated in the usual manner or by the ordinary means, which, as well as other parts and motions not illustrated in the drawing, it is unnecessary for me here to refer to. It may, however, here be remarked that to secure "perfect register" the drum or cylinder A has the ordinary short circular rack, *a*, at both ends, and the bed B a rack, *b*, on both sides, these latter being made adjustable so as to be readily controlled by the pressman. When in gear, that is, the racks on the drum with the racks on the bed, before and at the commencement of an impression, there is by this arrangement none of that one-sided strain which takes place where the drum and bed are geared on one side only, which, by reason of unequal wear, makes it so difficult to keep the press in register. The machine partly represented in the drawing, though only shown with four inking rollers, *e*, *d*, *e*, *f*, I prefer should be built for six, the bed B being sufficiently elongated, and cylinder A correspondingly enlarged to enable the six rollers to clear a full "form," as also to give both systems of distribution time for separate action. C is the "French table," on which are arranged one, two, or more disks, D D, the upper faces of which lie flush with the top of the table in which they are made to partially turn at intervals, that is, when outside of the end distributing rollers *g'*, *h'*, which receive their supply from the roller *i* above, and fountain roller, *j*, of the one fountain E. These disks, thus operating, materially assist the table-distributing rollers to perform their function. C' represents the "form" or form-surface. F is an inner fountain arranged over the inking rollers *e*, *d*, *e*, *f*, or thereabouts, and in communication therewith by rollers *k* and *l*, and the usual intermediate or additional ones. Between the inking rollers and end distributing ones, the usual diagonal distributing rollers *m*, *n*, of which there may be four, are arranged. Here, it will be seen, are embraced two different systems of distribution, or, as it may be termed, two kinds of distributors, each operating to advance the work or action of the other, and combining the advantages and conveniences of both the table and the disk, drawing, too, from separate fountains, whereby heavy ink may be doled out in very minute quantities, each system of distribution acting separately during every revolution of the cylinder, and at the required moment communicating their respective quantities of ink to the inking rollers, each of which should clear the full form. To otherwise distribute very fine stiff ink, for fine work, is difficult or a slow process; but by thus causing each fountain to contribute only one-half the ink necessary for the inking rollers, and by the combined action of the disk and table distribution, including that of the diagonal rollers, the stiffest ink may be worked with moderate rapidity, perfect distribution effected, and the inking rollers properly and evenly supplied. To give the necessary turning action to the disks D D at or about the termination of the one stroke of the bed or table, to distribute the ink, each disk is provided on its under face with a circle of ratchet-teeth, *n*, into which a pawl, *o*, gears. This pawl is pivoted at *r* to a lever, *p*, which has its fulcrum, *q*, in a standard attached to the bed or table, said pawl being weighted at the opposite end to that which gears with the disk and lever that carries it,

having at its end a roller, *t*, so that as the table approaches the end of its stroke, the roller *t*, in striking and running up an inclined plane, *S*, causes the lever, *p*, to work the pawl *o*, and with it the disk, the lever *p* being returned to its original position in the opposite motion of the bed by the spring *u*, acting on the arm *s*, while the pawl being weighted, retains its contact with the ratchet formation on the disk during both motions of the bed, though only driving the disk at the close of one. This forms a smooth and efficient mode of operating the disks.

What I claim as new and useful, and desire to secure by Letters Patent, is—

1. The arrangement, in combination with the reciprocating distributing table *C*, of disk distributors *D D*, for action in concert with distributing rollers, substantially as specified.
2. The combination with the inking rollers, distributing rollers, table *C*, and disks *D D*, of separate fountains *E F*, essentially as and for the purpose or purposes herein set forth.

JOHN HENRY.

Witnesses:

A. LE CLERC,

AMASA A. REDFIELD.