

(No Model.)

J. H. EIERMANN.

HAND PRINTING ROLLER MACHINE.

No. 388,031.

Patented Aug. 21, 1888.

Fig. 1.

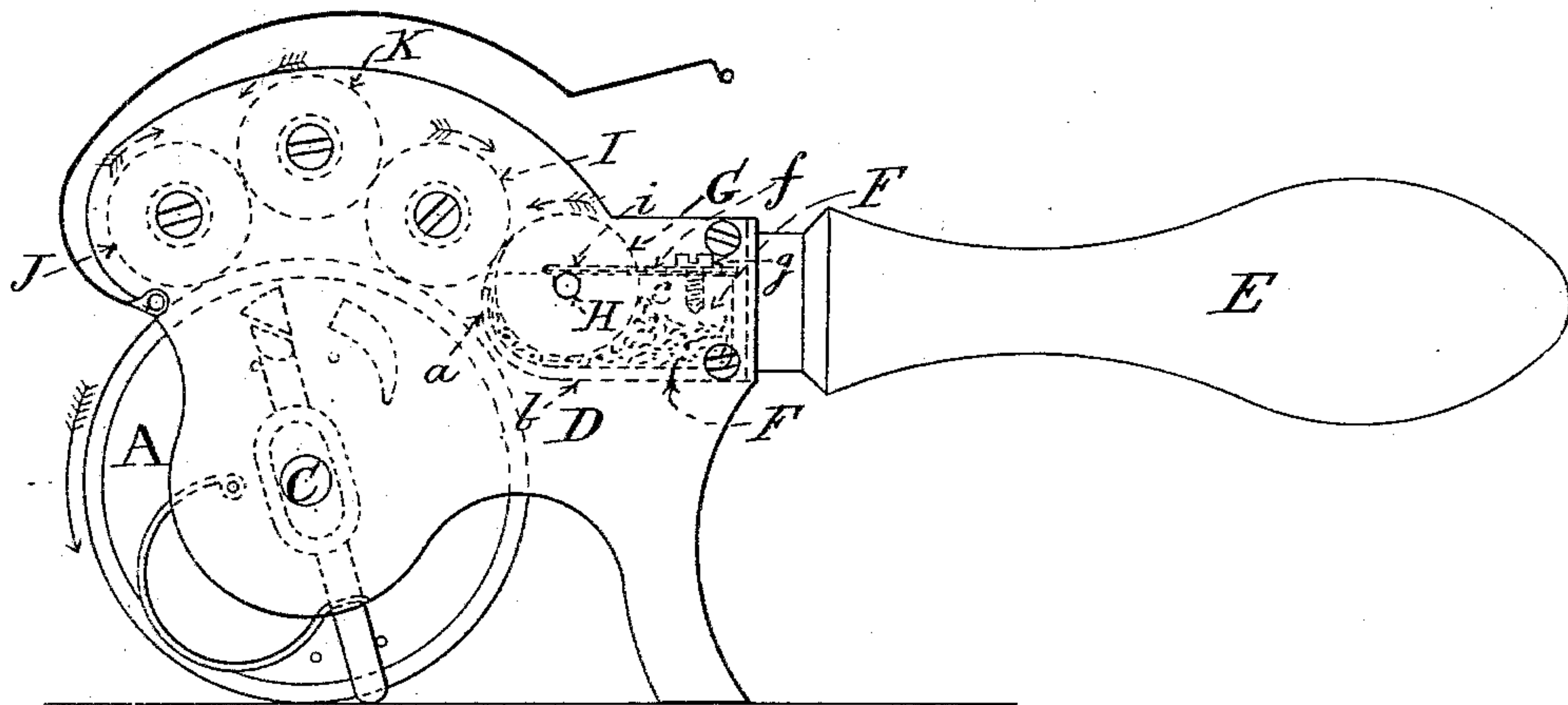
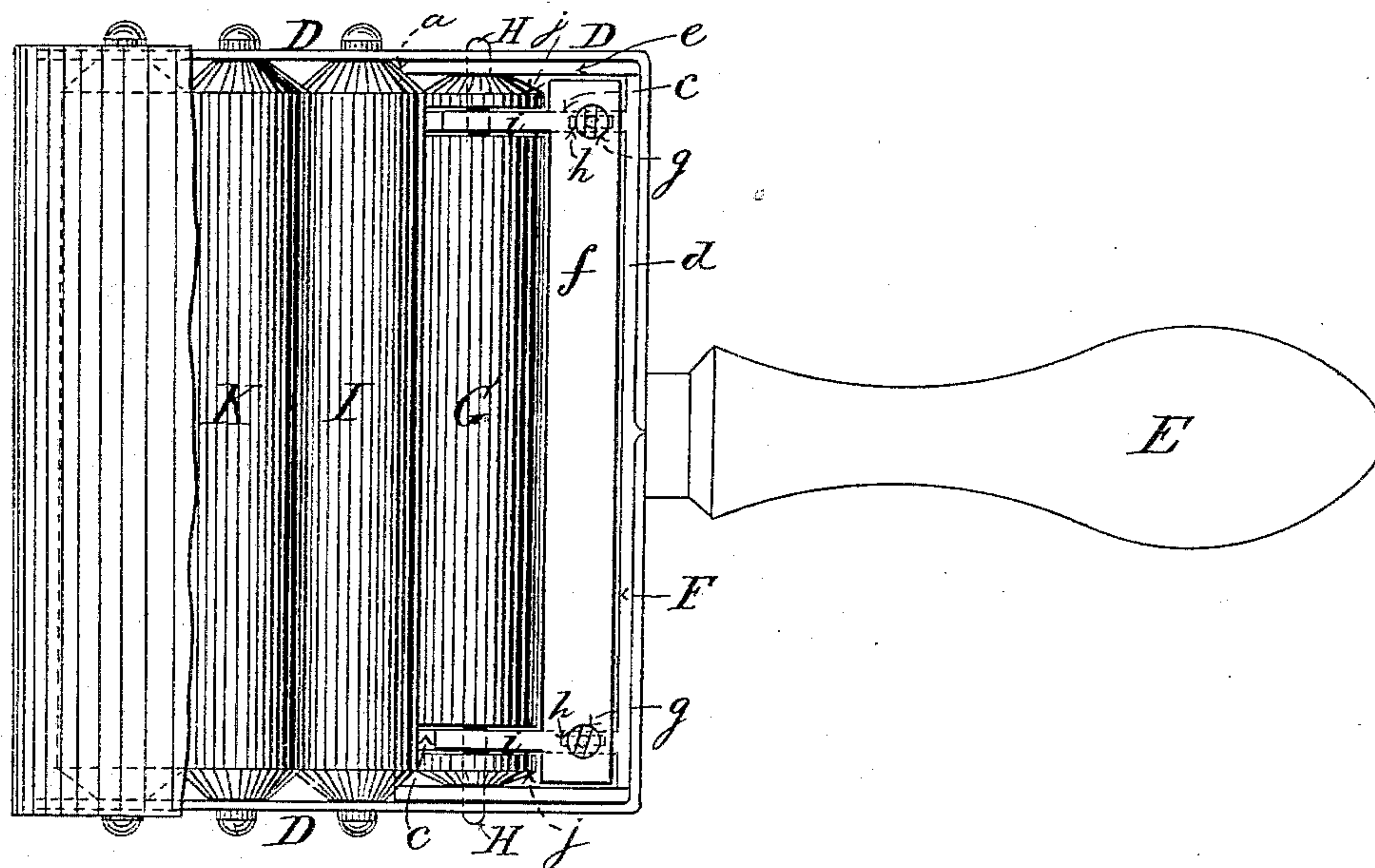


Fig. 2.



WITNESSES,

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JOHN H. EIERMANN, OF ST. LOUIS, MISSOURI.

HAND-PRINTING ROLLER-MACHINE.

SPECIFICATION forming part of Letters Patent No. 388,031, dated August 21, 1888.

Application filed October 25, 1887. Serial No. 253,322. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. EIERMANN, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Hand-Printing Roller-Machines, of which the following is a full, clear, and exact description.

My invention relates to improvements in hand-printing roller-machines for which Letters Patent were granted to me bearing date December 7, 1886, No. 353,670, and has for its object to obtain a better mode of distributing and regulating the flow of the ink onto the printing-band, and to prevent the leakage of the ink incidental (more or less) to the hand-printing roller-machines of the said patent and to those in present use.

My invention consists in a novel construction and location of the fountain or reservoir and roller, combined with improved means for regulating the flow of the ink from the fountain to the fountain-roller.

On the accompanying drawings, Figure 1 is a side elevation of my improved hand-printing roller-machine; Fig. 2, a plan thereof, partly broken away.

Referring to Figs. 1 and 2, A represents the printing-roller furnished with a rubber or other printing-band and mounted with its axle C in and between the sides D of the framework, to which is secured the handle E for operating and lifting the machine. These parts of the machine, with the inking-rollers I, J, intermediate distributing-roller, K, means for securing the printing-band to the roller A and for automatically stopping the rotation of the printing-roller A at the completion of its printing, are similar in construction and principle to the corresponding parts described and illustrated in my said previous patent, and therefore need no further description.

According to my invention the fountain or reservoir F, containing the ink, in lieu of being at the front of the machine, as in the said patent, is fixed horizontally across the rear part of the machine, above the roller A and between the sides D, and the fountain-roller G, in lieu of occupying and constituting the rear side of the fountain, as in the said patent, is mounted on its spindle H, within the fountain F, immediately behind the front side, *a*, of the

latter, the upper edge of the front *a* being level, or thereabout, with the middle plane of and close to the circumference of the roller G. From its upper edge the front *a* curves downward and rearward to the bottom *b* of the fountain F, so as to form a gradually-diminishing space between the fountain-roller G and fountain F from the bottom *b* of the latter to the upper edge of its front side, *a*. The upper edges of the ends *c* of the fountain F are on a level, or thereabout, with the upper part of the spindle H of the fountain-roller G, the spindle H passing through the ends *c* and taking its bearings in the extended flanged portions *e*, by which the fountain F is secured to the sides D of the machine; or the spindle H may have its bearings in the sides D, as found most suitable.

Over the open top of the fountain F, between the rear *d* of the latter and its roller G, is placed a plate, *f*, arranged parallel with the roller G and resting on the upper edges of the ends *c*, to which it is secured by screws *g* passing through slots *h* in the plate *f*. The plate *f* is formed on its front edge with rectangular-shaped tongues *i*, which project horizontally forward over the spindle H in proximity to the ends of the roller G, for the purpose of wiping or scraping the ink from the ends of the fountain-roller. By this means the plate *f* may be adjusted for bringing its front edge nearer to or farther from the fountain-roller G.

On the spindle H of the roller G, beyond the tongues *i* of the adjustable plate *f*, are fixed disks or washers *j*, the circumferences of which are in frictional contact with the inking-roller I at all times. By this construction the ink is prevented from spreading on the inking-roller sufficient to run over the ends thereof.

When the machine is in operation, the inking-rollers I and J are rotated by their contact with the printing-band and communicate rotation to the rollers G, K, as in the said previous patent, the combined arrangement operating in such a manner that the ink is conveyed from the fountain F by the fountain-roller G onto the inking-roller I, and thence to the other inking-roller, J, by the intermediate distributing-roller, K, whereby the ink is evenly spread before it passes from the inking-rollers I and J to the printing-band.

The advantages of my invention are as follows: first, by placing the fountain F in the rear, instead of in front of the machine, as in the said patent, a better distribution of the ink is obtained; secondly, by mounting the fountain-roller G within the fountain F, so as to be half immersed in the ink, combined with the special shape given to the front *a* of the fountain F, and with the adjustable plate *f*, with its tongues *i*, a fluid ink can be used exclusively without leakage from the fountain F when handling the machine, and, thirdly, by the use of the outside disks or washers, *j*, on the spindle H of the fountain-roller G a constant rotation of the latter when in operation is insured.

I claim—

1. In a hand-printing roller-machine, the combination, with a fountain, of a fountain-roll having at its ends friction-drivers, and wipers or scrapers interposed between the fountain-roll and the said friction-drivers, substantially as and for the purposes set forth.

2. In a hand-printing roller-machine, the

combination, with the inking-roller, of a fountain or reservoir, a fountain-roll having at its ends friction-drivers, and wipers or scrapers interposed between the fountain-roll and said friction-drivers, substantially as and for the purposes specified.

3. In a hand-printing roller-machine, the combination, with the fountain, the inking-roller, the fountain-roll of less length than said inking-roller, and the friction-drivers on the ends of the fountain-roll outside of the fountain and in contact with said inking-roller for preventing the ink from spreading beyond the end of the said inking-roller, of the adjustable plate having tongues interposed between the friction-drivers and the friction-roll, substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 22d day of October, 1887.

JOHN H. EIERMANN.

Witnesses:

S. L. SCHRADER,
PAUL BAKEWELL.