W. H. BELL.

Marking-Wheel.

No. 166,583. Patented Aug. 10, 1875.

Fig. 1.

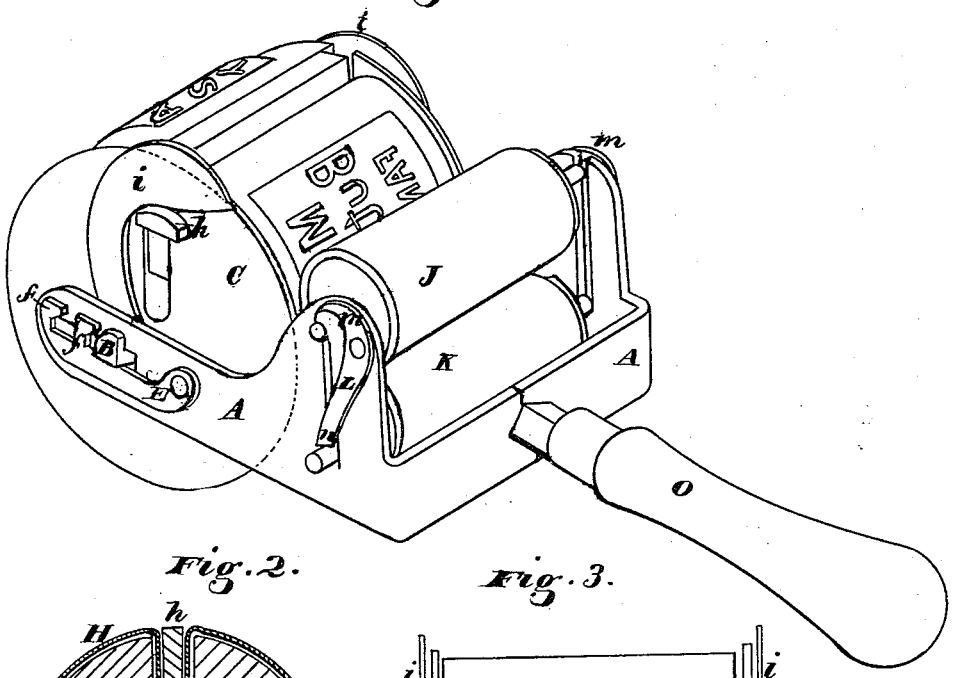


Fig. 2.

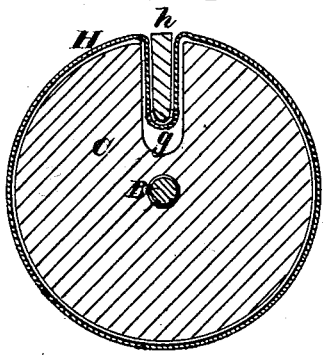


Fig. 3.

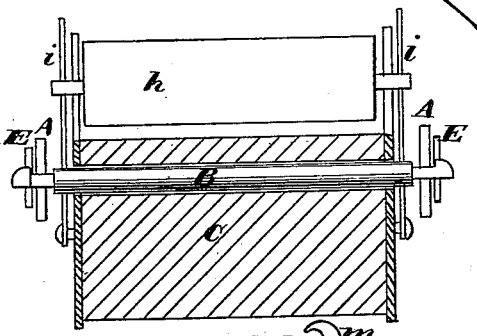
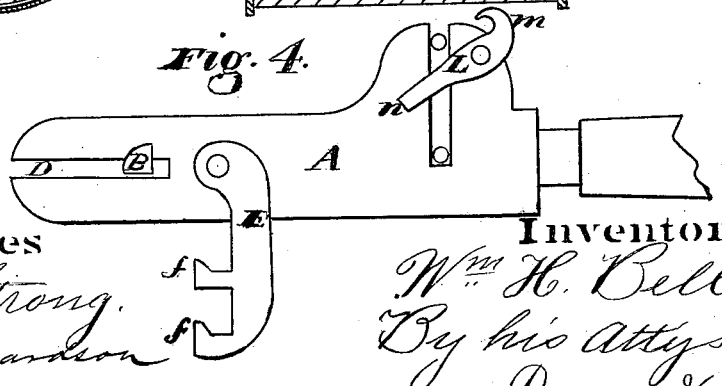


Fig. 4.



Witnesses

Geo. H. Strong.

C. M. Richardson

Inventor

Wm H. Bell

By his attys

Dewey & Co.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. BELL, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN MARKING-WHEELS.

Specification forming part of Letters Patent No. **166,583**, dated August 10, 1875; application filed June 29, 1875.

To all whom it may concern:

Be it known that I, WILLIAM HENRY BELL, of San Francisco city and county, State of California, have invented a Marking-Wheel; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to certain improvements in the hand printing-rollers, such as are employed for marking or labeling articles; and it consists in certain novelties in construction, whereby I am enabled to mount different sheets of type upon the same roller, and secure them firmly, without nailing or other fastening. It also consists in a means of securing the printing and inking rollers in the frame so that they are held to their places without springs, and the printing-type are always brought into contact with the inking-rollers by the action of putting the machine upon the surface to be marked. The device which strains the belts into place also serves to bring the roller into position to commence marking by gravitation by simply lifting it from the surface.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my device. Fig. 2 is a transverse section. Fig. 3 is a longitudinal section. Fig. 4 is an enlarged view of a part of the frame and the holder for the inking-rollers.

A is a metal frame, between the ends of which the axle B of the type-roller C is supported in slots D. This axle has a slightly flattened groove at its ends, and these grooves will slide into the slots D and hold the axle in place, and also prevent it from turning. The type-roller turns upon this stationary axis. In order to hold the axle B in place I pivot a plate, E, to each side of the frame, and these plates have one or more hooks, *f*, at their ends. These hooks extend across the slots D, and allow the axle to slide forward and back a short distance on its bearings. By this construction it will be seen that when the type-roller is lifted from the surface (the handle being higher than the roller) its axle will slide a short distance in the slots D, and thus free the type-roller from the inking-rollers so that it can revolve freely, but when the roller C is pressed upon the surface to be marked the axle will slide back again and bring the type into contact with the inking-roller. No springs are necessary, as the inking-rollers are placed behind the type-roller, and the tendency of the latter is to come into contact instead of being drawn away while printing. By making the plates E with two or more hooks each, it will be seen that different sizes of printing-rollers, with more or less type upon them, may at any time be used in the same frame. The plates E are easily turned back upon their pivots, so as to free the axle for the removal of a roller. I prefer to mount my sheet of type (usually cast of rubber or other elastic material) upon a band or belt of canvas or other material, H. This band is then passed around the roller C, and being somewhat larger than the roller, the slack will be forced into a depression, *g*, (which is made longitudinally in the face of the roller,) by means of a bar of metal, *h*. This bar serves as a tightener, and its ends extending just beyond the roller through slots in its ends, are drawn down by means of hooked-shaped cams *i* pivoted to the ends of the roller, as shown. The outer edges of these cams are carried a little beyond the periphery of the roller, so as to serve as stops and designate the end of the type or printing. As the roller C revolves freely, the weight of the bar *h* will be sufficient to bring it to the lowest point whenever the roller is raised from a surface, and the type will thus always be brought to the proper position for beginning to print. The inking and distributing rollers J and K are mounted upon axles which slip into vertical slots in the rear portion of the frame A. These rollers are retained in place by means of plates L. These plates are pivoted to the sides of the frame A, and the hook *m* formed at the upper end will curve over the axle of the roller J, while the lower end *n* will rest upon the axle of the roller K. To remove these rollers it will only be necessary to turn the plates L back so as to release the upper roller, and then continue to turn them until the lower roller is left free to come out. The

frame A may all be constructed in one piece, or may be made in two halves, and these halves being driven into the handle O, will hold the whole securely in place.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The frame A, having the slots D to receive the ends of the axle, in combination with the plates E, with their hooks *f f* to accommodate different sizes of rollers, substantially as herein described.

2. The band or belt H, and bar *h*, in combination with the type-roller C, provided with the depression *g* and cam-hooks *i*, substantially as and for the purpose set forth.

3. The pivoted plates L, with their hooks *m* and ends *n*, in combination with the frame A, when said plates are so attached as to either secure or release the two rollers J and K at one operation, substantially as herein described.

WILLIAM HENRY BELL.

Witnesses:

GEO. H. STRONG,

JNO. L. BOONE.