F. M. TRUWORTHY.

Marking-Wheels.

No. 166,162. Patented July 27, 1875.

Fig. 1.

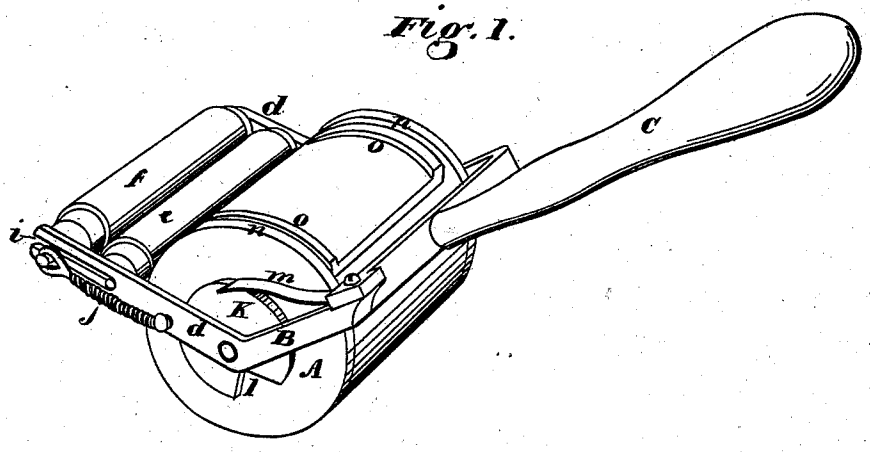
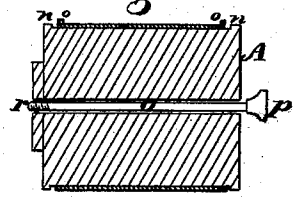


Fig. 2.



Witnesses

Geo. H. Strong.

Jno. L. Boone

Inventor

Frances M. Truworthy

by Dewey & Co

Attys

UNITED STATES PATENT OFFICE.

FRANCIS M. TRUWORTHY, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN MARKING-WHEELS.

Specification forming part of Letters Patent No. **166,162**, dated July 27, 1875; application filed June 8, 1875.

To all whom it may concern:

Be it known that I, FRANCIS M. TRUWORTHY, of San Francisco, city and county and State of California, have invented an Improved 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 or improvement without further invention or experiment.

My invention relates to certain improvements in rotating type-wheels, such as are used for printing advertisements and other printed matter by rolling the wheel over the surface to be printed upon.

My improvements are fully described and explained in the following specification, in which reference is had to the accompanying drawings, in which—

Figure 1 is a perspective view of my device. Fig. 2 is a section of the roller.

A is the type-faced cylinder or wheel. B is the frame inside of which it rotates, and C is the handle. As heretofore constructed, the side bars *d* of the frame B extended directly across the ends of the cylinder A, in a line with the handle, and the inking-rollers *e f* were arranged side by side, close to the face of the cylinder, an arm being formed at right angles to the side bars of the frame, near their outer ends, in which the ink-distributing roller was supported, while the inking-roller was supported in the ends of the side bars, thus necessitating the employment of two springs at each end of the wheel—one to keep the inking-roller against the face of the type-wheel, and the other to press the distributing-roller against the inking-roller. This arrangement was quite inconvenient, especially when applying the ink to the rollers.

That portion of the side bars *d* which extends beyond the center of the wheel or cylinder upon each side of the machine I bend upward at an angle of about thirty degrees, so that when the handle C is raised into position for operating the printing-wheel, the outer ends of the side bars will be on a level. This upward-bent portion of the side bars I extend beyond the face of the cylinder or wheel a distance equal to the combined width of both of the rollers *e f*. At the extremity of each side bar I make a slot, *i*, which extends down the middle of the bar almost to the rim of the wheel. The inking-roller *e* I first place across the face of the wheel, with its journals resting in the bottom of the slot *i* of the side bars, and upon this roller I place the distributing-roller *f*, so that it will rest upon the inking-roller, while its journals also bear in the slot *i*, near the extremity. I then employ a single spring, *j*, at each end of the machine, to compress the rollers together and press the inking-roller against the face of the cylinder. This spring has one end secured to the side bar near the angle, while its opposite end is attached to the projecting end of the journal of the distributing-roller *f*, thus drawing both rollers toward the face of the wheel.

When thus applied, the rollers will be out of the way when printing with the wheel, and will be especially convenient when the machine is reversed to apply ink to the rollers, which is done by turning the machine upside down, and placing the distributing-roller *f* upon an inked surface, and then moving it back and forth until it is saturated.

To record each revolution of the wheel, I secure upon one of its ends a metal disk, *k*, so that the center of the disk will be opposite the center line of the wheel. I then cut away a segment, as at *l*, so as to form a notch at one side. To the side bar *d* of the frame I secure one end of a flat spring, *m*, so that its opposite end will bear upon the rim of the disk, and serve as a pawl to record the revolutions and prevent a back rotation of the wheel. As the wheel rotates the free end of the spring will be lifted out of the notch *l*, so that it will press upon the rim of the disk until it has made a revolution, when it will drop into the notch, and by its click give notice that a revolution has been made. By this arrangement the wheel can be rolled over a surface any number of times without adjusting any of its parts or stopping its continuous movement; yet each revolution is plainly indicated, so that they can be easily counted. The marking-wheel A, I also secure in the frame by a rod or shaft, *o*, which has a head, *p*, at one end, and a screw, *r*, at the other end. This rod passes through one side bar and

through the wheel, and is screwed into the side bar at the opposite end of the cylinder. This device for securing the wheel on the frame is quite simple, and permits the easy removal of the wheel.

This is especially convenient where the owner desires to change one wheel for another, instead of purchasing two or more complete machines.

The wheel A is provided with raised flanges or rims *n*, of metal or wood, being turned out with it, and these serve to propel the wheel when it is pressed down upon the surface to be marked. The marking-letters may be cast in rubber or other elastic material, in the usual manner; and I prefer to employ an ornamental border, *o*, around them, as shown, although this may be dispensed with, if desired.

I thus greatly improve the printing-wheel and render it more convenient, especially when the wheel is of large size, as the recoil arrangement of the ordinary marking-wheel is not effective when the wheel is large.

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

The type-faced cylinder A and side bars *d*, having their extremities provided with the slot *i*, in combination with the rollers *e f*, placed one above the other, radial to the center of the wheel, and the spring *j*, having one end secured to the side bar, while its opposite end is secured to the jouanal of the upper roller, substantially as and for the purpose set forth.

F. M. TRUWORTHY.

Witnesses:
GEO. H. STRONG,
JNO. L. BOONE.