(No Model.)

W. R. BACON.

PRINTING WHEEL.

No. 353,527. Patented Nov. 30, 1886.

Fig. 2.

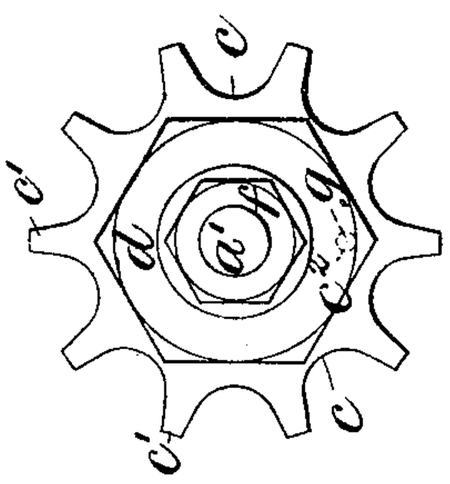
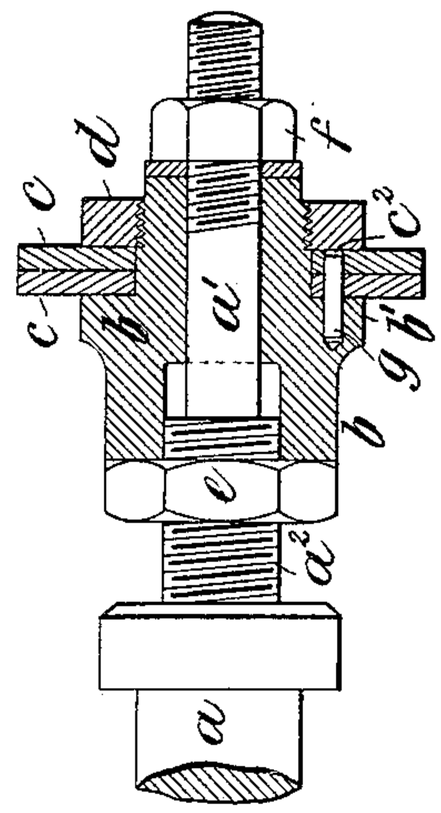


Fig. 1



Witnesses.
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Atty.

UNITED STATES PATENT OFFICE.

WALTER RATHBONE BACON, OF LONDON, ENGLAND.

PRINTING-WHEEL.

SPECIFICATION forming part of Letters Patent No. 353,527, dated November 30, 1886.

Application filed April 24, 1886. Serial No. 200,051. (No model.)

To all whom it may concern:

Be it known that I, WALTER RATHBONE BACON, a citizen of the United States of America, and a resident of London, England, have invented new and useful Improvements in Apparatus for Printing Serial Numbers, Letters, or Characters, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to apparatus for printing serial numbers, letters, or characters, which apparatus is chiefly designed for use in rotary printing-machines for the production of railway and other tickets.

Railway-tickets are usually printed in series, each comprising, say, ten thousand tickets, and it is customary to print certain serial numbers, letters, or characters—such as A' A^2 AA AB, &c., on the tickets of each series, so that those of one series may be easily distinguished from those of another series.

This invention consists in the novel construction and combination of devices, hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in longitudinal central section, of my apparatus, and Fig. 2 is an end elevation of the same.

a is a pin or stud, which is to be secured in the frame of the machine in which the apparatus is to be used.

b is a sleeve or tubular piece, which is fitted upon the part *a'* of the said pin or stud and screwed upon the part a^2 thereof.

c c are the type-wheels, which are fitted upon the sleeve or tube *b* and bear against the flange *b'* thereof, and which are secured on the said sleeve or tube by means of a nut, *d*. These type-wheels are preferably made with radial arms *c'*, on which the types are formed or fixed. A lock-nut, *e*, is fitted upon the screw-threaded part a^2 of the pin or stud *a* to firmly lock the sleeve or tube *b* in position thereon. The said sleeve or tube is moreover secured upon the pin or stud *a* by a nut, *f*, screwed upon the part *a'* of the same.

The types on all the arms or projections of each wheel are similar, and the pin or stud *a* is provided with suitable means whereby it may be rotated, so that each ticket or half of a ticket will have a serial number, letter, or character printed thereon as the paper or card-board passes through the machine.

A pin or stud, *g*, is fixed in the flange *b'* of the sleeve or tube *b*, and the type-wheels *c* are formed with holes c^2, which fit upon the said pin or stud. By these means the placing and retaining of the said type-wheels in their proper position on the said sleeve or tube is insured. When one series of tickets has been printed and it is desired to change one or both of the numbers, letters, or characters, the nut *d* is removed and one or both of the type-wheels are replaced by other type-wheels.

I do not confine myself to the use of any special means either for securing the type-wheels upon the sleeve or tube, or for insuring the placing and retention of the same in their proper position thereon. The means employed for these purposes may be varied as may be found convenient.

What I claim is—

1. The combination of a pin, *a*, the sleeve *b*, having the flange *b'*, and mounted on the pin to turn thereupon, the type-wheels *c c*, arranged on the sleeve and bearing against the flange thereof, a nut, *d*, screwing on the sleeve to clamp the wheels against the sleeve-flange, and nuts on the pin at opposite ends of the sleeve for holding the latter stationary, substantially as described.

2. The combination of the pin or stud *a*, the sleeve *b*, mounted thereon and capable of turning axially thereupon, and provided with the flange *b'*, the interchangeable type-wheels arranged on the sleeve and bearing against its flange, a nut, *d*, for clamping the wheels against the sleeve-flange, and devices, such substantially as described, for locking the sleeve against rotation on the pin or stud, substantially as described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WALTER RATHBONE BACON.

Witnesses:
ROBT. M. HOOPER,
CH. T. THIRION.