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 APPARATUS FOR PRINTING TEXT ON TAPES.  
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1,069,315.

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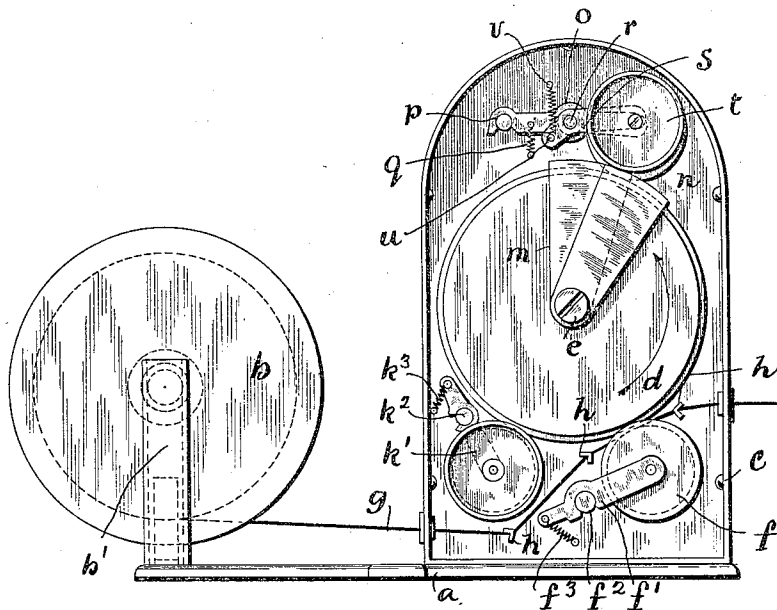


Fig: 1.

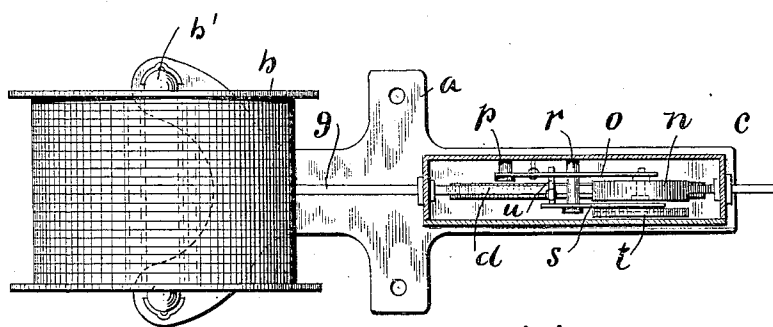


Fig: 2.

Witnesses:  
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Max Baumann, Inventor.  
 By his Attorney  
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# UNITED STATES PATENT OFFICE.

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## APPARATUS FOR PRINTING TEXT ON TAPES.

1,069,315.

Specification of Letters Patent.

Patented Aug. 5, 1913.

Application filed March 5, 1913. Serial No. 752,032.

*To all whom it may concern:*

Be it known that I, MAX BAUMANN, a subject of the Emperor of Germany, residing at Copenhagen, Denmark, have invented certain new and useful Improvements in Apparatuses for Printing Text on Tapes, of which the following is a specification.

This invention relates to improvements in a device for printing any desired matter on flat tapes such as are usually made of fabric of some kind, and are used for tying up packages.

For advertising and other purposes it is often desirable to have binding tape carry printed matter, and if the tape has to be printed before it is used, it is necessary to have it printed in considerable quantities for economical reasons, and moreover the text cannot then be changed.

The object of this invention is to produce a simple apparatus through which the tape can be drawn for use, and which will automatically print the desired matter on the tape.

A further object of the invention is to produce an apparatus which can be set so as to automatically print in different colors, so that if for any reason it is desired to particularly emphasize a word or clause, this emphatic part can be printed in different color from the body of the text.

Other objects of the invention are to render the apparatus as simple, cheap and efficient as possible, to provide means for readily interchanging certain of the parts, and to construct the apparatus so that it will not easily get out of repair.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a side elevation of the apparatus embodying my invention, with one side of the casing removed, and Fig. 2 is a plan view, part of the casing being cut off.

The apparatus is provided with a suitable base plate *a* which can be fastened to a counter or other support, and this carries the roll *b* of tape which can be conveniently mounted in a bracket *b*<sup>1</sup>. On the base plate opposite the roll *b* is a casing or housing *c* which carries a thin printing roller *d*, this being mounted on the stud *e* which is secured

to the casing. I have not shown the type on the printing roller, as this can be of any approved kind. The printing roller turns opposite a pressure roller *f* between the flanges of which the type face of the printing roller enters, as shown, and the pressure roller is adapted to hold the tape *g* against the printing surface of the roller *d* when the tape is drawn through the casing. The tape *g* passes through suitable apertures in the casing through guides *h* and between the printing face of the roller *d* and the pressure roller *f*, so that as the tape is withdrawn it will by reason of the pressure on it, rotate the roller *d* and cause the printed matter to be produced on the tape. The pressure roller *f* can be urged against the roller *d* in any convenient manner, but I prefer to mount it on a tilting arm *f*<sup>1</sup>, which is pivoted on a stud *f*<sup>2</sup> of the casing *c*, and one end of which is impelled by the spring *f*<sup>3</sup> in a manner to press the roller *f* against the roller *d*.

The printing roller *d* is inked by an ordinary inking roller *k* which is arranged so that the printing part of the roller *d* fits between the flanges, and the roller *k* can be mounted in a convenient and resilient manner. The preferred way, however, is to have it pivoted on a tilting arm as *k*<sup>1</sup> which is pivoted on a stud *k*<sup>2</sup> on the casing *c*, and is pressed by a spring *k*<sup>3</sup> so as to bring the roller *k* into close contact with the printing roller *d*.

The arrangement above described provides for inking and printing in one color, as the tape *g* is drawn through the casing *c*.

To provide for inking part of the text in a different color I use a segment *m* which can be arranged to carry type in any usual way, and which fits over a portion of the face of the roller *d*. When the roller *d* is rotated the edge of the segment *m* strikes the flanges of the roller *k*, and thus pushes the inking roller *k* out of contact with the type on the segment *m*. The type on the segment *m* is inked in the appropriate color by an inking roller *n* which runs on the face of the segment *m*, and this second inking roller *n* is preferably supported on a tilting arm *o* which is pivoted on a stud *p*, and a spring *q* pulls down on the arm *o* so as to firmly press the inking roller into contact with the type on the segment *m*. A contact disk *t* is pivoted opposite the roller *n* and

in a position to contact with the raised edge of the segment *m*. The disk *t* is pivoted on a bent arm *s* which in turn is pivoted on the stud *n*, and the short end of the arm *s* carries a pin *u* which extends beneath the arm or lever *o* above referred to. The pin *u* is connected with a spring *v* which connects also with the casing *c* above the arm *o*, and the spring *v* is smaller than the spring *q* so that normally the roller *n* will be raised out of contact with the face of the roller *d*. When, however, the roller *d* is rotated, the edge of the segment *m* will strike the disk *t*, thus tilting the arm *s* and pulling down the spring *v*, thereby releasing the arm *o* to the action of the spring *q* and permitting the inking roller *n* to contact with the inking type on the segment *m*.

It will be of course understood that the details of the manner in which the several rollers and parts are mounted can be changed without altering the spirit of the invention, and it will be further understood that numerous printing rollers *d* may be used, each provided with different printed matter, so that the apparatus can be readily adjusted to print any desired matter on the tape; and it will be further observed that when arranged as specified, the printing will be automatically done and in a plurality of colors by simply drawing the tape through the apparatus.

I claim:—

1. A portable apparatus of the kind described, comprising a base plate, a tape roll pivotally supported on the base plate, a casing on the base plate, a main printing roller within the casing, a pressure roller opposite the printing roller, means for guiding tape from the tape roll through the casing and between the printing and pressure rollers, an inking roller contacting with the printing roller, a type carrying segment straddling the face of the printing roller, and a separate inking device for the said segment.

2. An apparatus of the kind described comprising a printing roller, a pressure

roller or platen yieldingly supported opposite the face of the printing roller, means for guiding a tape between the aforesaid rollers, a type carrying segment straddling the face of the printing roller, an inking roller contacting with the printing roller, a second inking roller contacting with the type on the aforesaid segment, and means for throwing the second inking roller out of contact with the main printing surface of the printing roller.

3. An apparatus of the kind described comprising a main printing roller, a pressure roller or platen yieldingly supported opposite the printing roller, an inking roller contacting with the printing roller, a type carrying segment on the face of the printing roller, said segment having a raised edge, a second inking roller held normally out of contact with the type of the printing roller, an abutment in the path of the raised edge of the type carrying segment, and means actuated by the movement of the abutment for throwing the second inking roller into contact with the type of the segment.

4. In an apparatus of the kind described, the combination with the main rotatable printing roller and the type carrying segment thereon having a raised edge, of a spring pressed arm carrying an inking roller to contact with the said type, a tilting arm pivotally connected with the first mentioned arm, a contact disk on one end of the second arm, said disk being arranged in the path of the edge of the aforesaid segment, and a spring connection with the opposite end of the said second arm adapted to normally raise the second inking roller out of contact with the type of said segment.

In testimony whereof I have affixed my signature in presence of two witnesses.

MAX BAUMANN.

Witnesses:

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