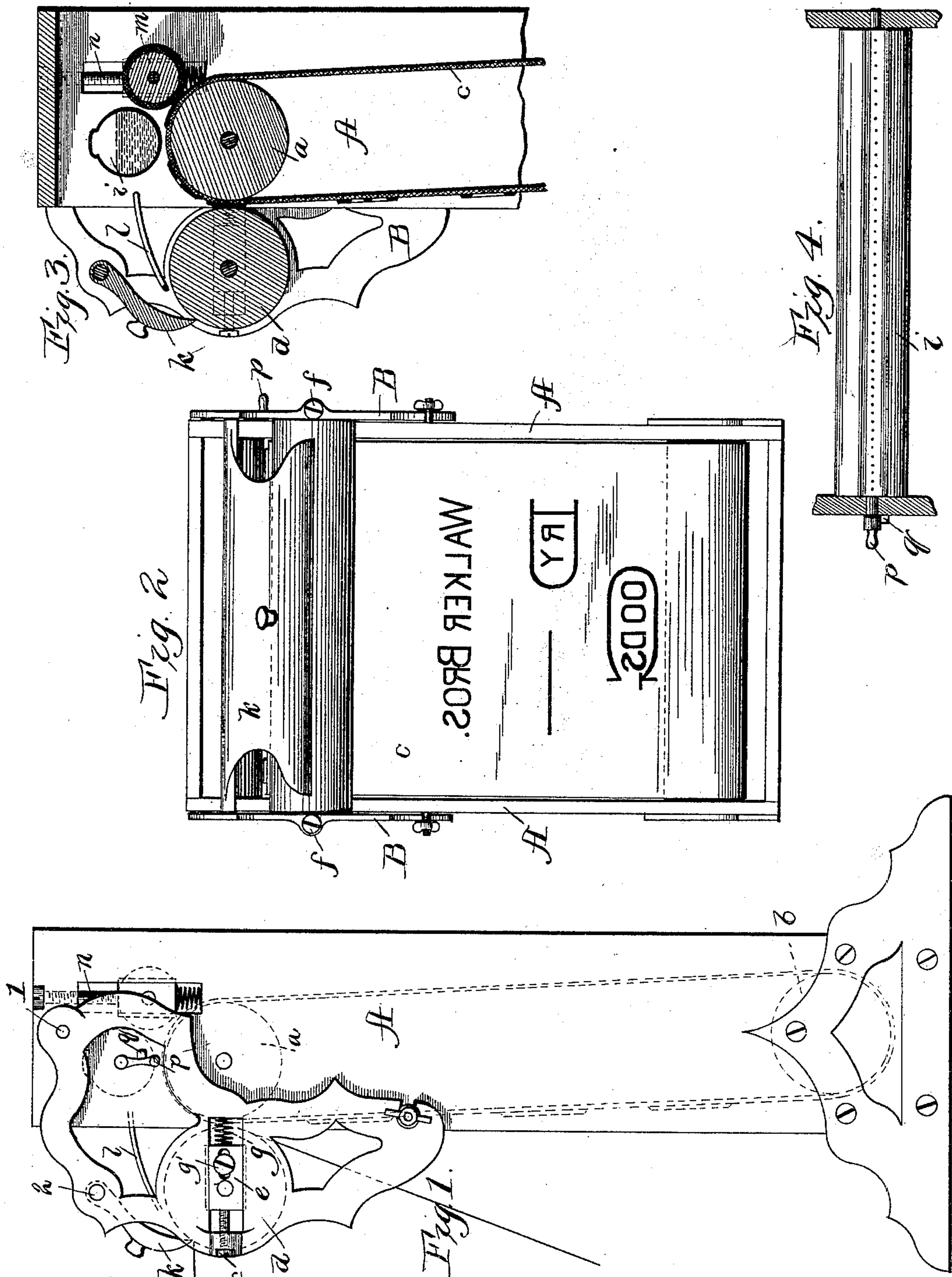


(No Model.)

C. H. DEANE.
PRINTING APPARATUS.

No. 413,176.

Patented Oct. 22, 1889.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES HENRY DEANE, OF WOODFORD COUNTY, KENTUCKY.

PRINTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 413,176, dated October 22, 1889.

Application filed February 9, 1889. Serial No. 299,229. (No model.) Patented in Canada April 12, 1889, No. 31,121.

To all whom it may concern:

Be it known that I, CHARLES HENRY DEANE, of Woodford county, (near Keene post-office, in the county of Jessamine,) in the State of Kentucky, have invented a new and useful Improvement in Printing Apparatus, (for which I have obtained Letters Patent in Canada April 12, 1889, No. 31,121;) and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improved device designed especially for use in connection with wrapping-paper, and to print upon such wrapping-paper as it is unwound from a reel the name of the merchant and the character of the goods sold by him, or any other matter of this character, automatically.

Heretofore various complex mechanisms have been provided for printing names and addresses, and it has been suggested to use in connection with a roll of paper a printing-cylinder; but this has been found to be objectionable, for the reason that as it was necessary to have the printing mechanism in compact form a cylinder could not be made large enough conveniently to answer the desired purpose, its capacity being too limited.

In the drawings, Figure 1 is a side elevation of my improved apparatus. Fig. 2 is a front elevation. Fig. 3 is a section of ink and impression rollers. Fig. 4 is a plan view of the ink-fountain.

In the drawings, A represents the frame, which may be of black walnut or other wood, or may be of metal, if desired. In the side walls of the frame the rollers *a b* have their bearings, and these rollers support the endless belt or band *c*, which carries upon its face the words or characters which are to be impressed upon the wrapping-paper. A pivoted frame B, which may be of open-work metal, as shown, and pivoted to the main frame at 1, supports a roller *d*, which I will call the "impression-roller," and over this roller the paper passes which is to be impressed. This roller is in line with the roller *a*, which supports the endless band, and as the paper passes between the two rollers the friction of the paper will cause the two rollers to revolve, and the different lines of characters, which have been suitably inked, will be impressed upon the paper as it is drawn

through the rollers. The pivoted frame B is slotted at its lower end on each side, which slots are adapted to pins in the side walls, and thumb-nuts of these pins may be used to hold the frame in position. By thus pivoting the frame it may be easily lifted and the paper straightened or access had to the endless belt. The journals of the rollers *d* have their bearings in movable blocks *e e* in the side walls of the pivoted frame, and these blocks are adjustable by means of the adjusting-screws *f*. The springs *g* are placed between the end of these blocks and the edges of the side walls of the frame. The office of these springs is to give yielding contact to the rollers *a* and *d* while adjusting; but after adjustment the contact is firm and unyielding, so that a better impression is had than if the pressure was yielding. It will be understood that a like adjustable block and interposed spring are provided in the opposite side also. Instead of making the roller *d* adjustable, it will be understood that the roller *a* may be given this adjustment. The sliding blocks I have shown as being supported on the pivoted frame B by screws *g'*, passing through elongated slots in the pivoted frame; but instead of this connection the blocks may be dovetailed and fitted to corresponding dovetailed grooves in the walls of the frame B, or the blocks may be kept in place by flanges at the rear ends of the blocks.

In order to easily sever the paper for wrapping purposes, I provide a knife *k*, pivoted at 2, with its edge bearing on the impression-roller, and of sufficient weight to allow the paper to be torn off in a straight line at the point where the knife-edge rests. As the knife is pivoted, it may be thrown back, so as to catch hold of the paper beneath the blade. A spring or arm *l* extends from the frame to a position in the rear of the knife and directly above the impression-roller, so that as the knife is lifted the paper will be prevented from following it.

For inking the endless belt I provide a distributing-roller *m*, adjustably supported on sliding blocks, with an adjustable screw *n* for regulating the pressure of the roller *m* on the endless belt or roller *c*. An ink-fountain is provided at *i*, which is in the form of a cylinder, pivoted so as to be turned by a handle

p, its movement being limited by stop-pins *q*. This cylinder is closed, except along its upper surface, which has a perforated swell portion, and when the cylinder is turned this
5 swell portion comes in contact with the distributing-roller, and thus the said roller can be kept supplied with ink, which the distributing-roller transmits to the endless belt.

In order to make the feed of the endless
10 belt positive, the roller *a* may be geared to the roller *d*, but ordinarily the paper passing between the two rollers will be sufficient to move the belt.

The pivoted frame may, if desired, be made
15 rigid.

I claim as my invention—

1. A printing device for wrapping-paper and the like, consisting of an endless band having upon its surface the characters, suitable supporting-rollers, a pivoted frame,
20 an impression-roller carried by said frame, and a retaining device for holding said frame in its operative position, substantially as described.

25 2. In a printing apparatus, an inking device consisting of a feed-roller and an inking-cylinder having a perforated swell portion on

one side and a handle connected to said cylinder for turning the same until the perforated swell portion comes in contact with the distributing-roller, substantially as described. 30

3. In a printing apparatus, the rollers *a d*, between which the paper is passed to be printed, a pivoted knife supported above the roller *d*, and an arm or arms supported so as
35 to extend between the roller *d* and the knife, thus preventing upward movement of the paper when the knife is lifted, substantially as described.

4. A printing apparatus consisting of a
40 suitable frame, rollers *a b*, carrying an endless printing-belt, inking devices for said belt, a pivoted frame, an impression-roller carried by said frame, and a pivoted knife above said
45 impression-roller, also carried by the pivoted frame, substantially as described.

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

CHARLES HENRY DEANE.

Witnesses:

J. E. NEET,
FRED. W. HENRY.