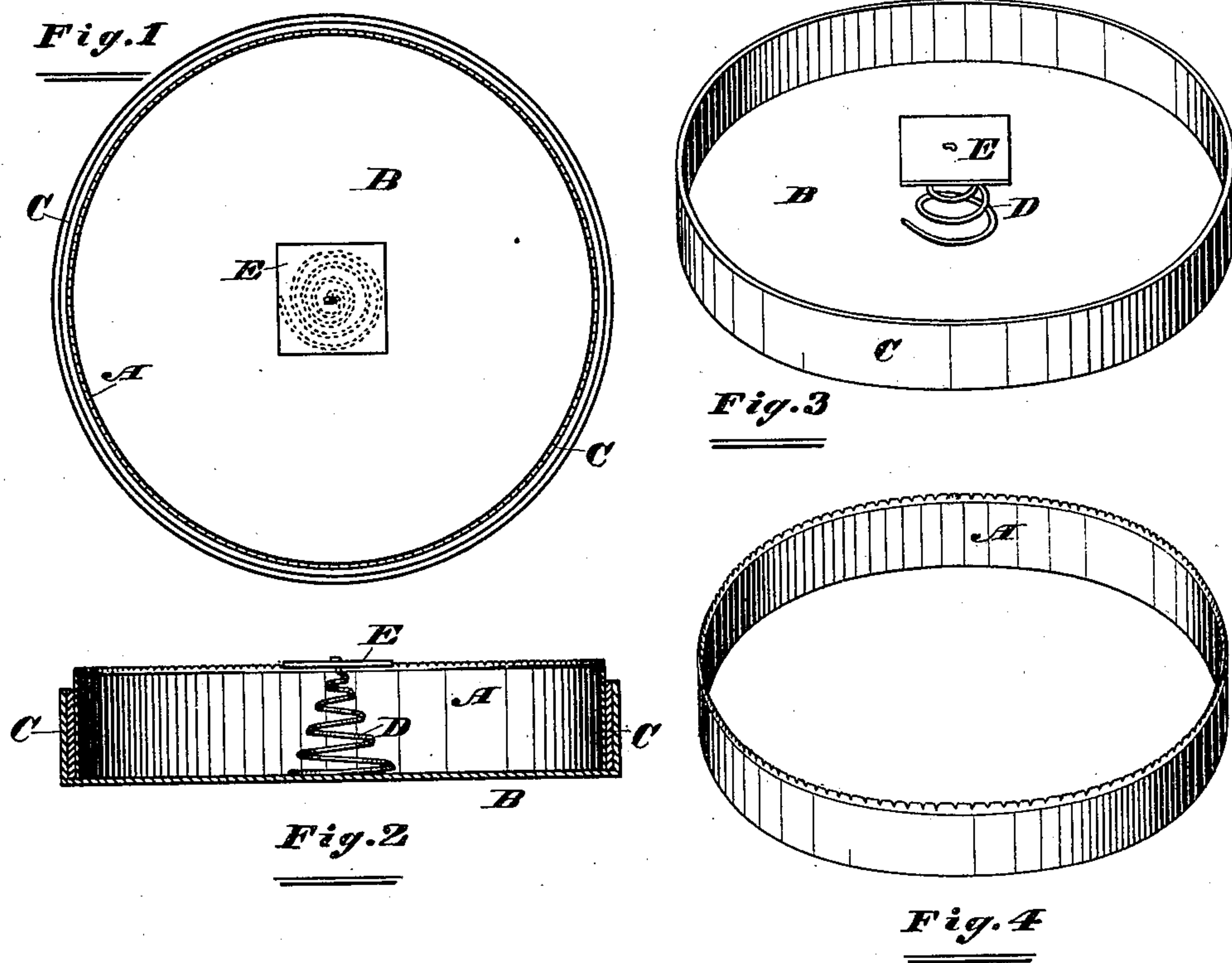


H. H. FRARY & L. HELLMAN.
Machine for Cutting Labels.

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IMPROVEMENT IN MACHINES FOR CUTTING LABELS.

Specification forming part of Letters Patent No. **201,104**, dated March 12, 1878; application filed November 20, 1877.

To all whom it may concern:

Be it known that we, HENRY H. FRARY and LOUIS HELLMAN, of Chicago, in the county of Cook and State of Illinois, have made certain new and useful Improvements in Mechanism for Cutting Paper Labels, of which we hereby declare the following to be a full, clear, and exact description, which will enable others skilled in the art to which our invention appertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a plan view of the label-cutting device; Fig. 2, a central cross-section; Fig. 3, a metallic ring or chase, and Fig. 4 a perspective view of the knife or cutter.

The object of our invention is to provide a device which will be cheap and practical for cutting paper labels of any desired outline, either round, oval, diamond-shaped, or oblong, as may be required.

As is well known, the present mode of cutting labels is very slow. An expensive die must be prepared for each different-shaped label that may be required, or a solid steel knife for each particular outline. Said knife must be secured stationary in a block of wood or equivalent material.

Our improvement consists in providing a flexible adjustable knife, made of strips of metal, in the same manner as printers' rule, which is usually cut from sheet-brass or other suitable metal, and very little time or expense is required to prepare to cut any desired outline.

By taking a circular chase or frame, and filling the inclosed space with a series of smaller and close-fitting rings, a solid form is made, and we have just as many different sizes as there are rings; and by removing the ring which is equal in diameter to the size of the label required, and inserting in its place the cutting-knife which is equal in thickness to the ring removed, we are in this manner enabled in a moment to make the necessary change to cut a circle of any required size, from the outer to the inner ring, thus rendering it unnecessary to have a special support for the different-sized knives or cutters, the

knife being made of greater width than the supporting parts, so as to allow the cutting-edge to project above the same.

We use the same method for large or small designs of any desired outline, and by using strips of suitable material, increase or decrease to the size required.

Our improvement admits of the knife or cutter being made in sections. For instance, to cut a diamond-shaped label, we have the knife in four parts.

In the drawings, A represents a metallic knife or cutter, circular in form, having a toothed cutting-edge, for the purpose of allowing the edge of the cutter to be more easily forced through the paper. The cutter, as shown, is circular in form, but is just as easily made in any other desired outline.

We also use a cutter having a smooth edge; but when many thicknesses of paper are cut at the same time, the toothed-edge cutter is found to be preferable.

These knives or cutters are usually made of sheet-brass, not only on account of economy, but also for the reason that a cutter of any desired outline may be easily and quickly made in any printing-office. Brass is not as durable for this purpose as other material might be; but it is easily and quickly formed to cut any particular shaped label, and as easily replaced when worn out.

B is a metallic cap, which represents the bed of a printing-press, or any backing on which the cutter A may rest.

C represents one of a series of rings which are placed inside and outside of the cutter A, for the purpose of giving support thereto; and by simply removing any one of these rings, and inserting in its place a cutter of the same diameter, the device can be made to cut any sized circle required, the knives or cutters being duplicated, to correspond to the number of rings used. Outlines other than circular are supported by a chase or frame, duplicated in the same manner.

D represents a spiral spring, arranged vertically and placed in the center and on the inside of the space inclosed by the cutter A. On the upper end of this spring is placed the

plate E, which operates in connection with the spring D, and forces out the labels after they are cut.

With this improved device we can cut through from one to one hundred sheets of paper at once, and we can cut fifty thousand labels in the same length of time that is now required to cut one thousand.

Our improvement can be used without a printing-press. Any other mechanical arrangement which will give the necessary pressure will fully answer the purpose.

We make no claim to cutting and printing labels at the same time; but we do claim an improvement over the old method of having to use an expensive die for each and every different-sized label and particular outline required.

Having thus fully described the nature and operation of our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a paper-cutting device, the combination of the cutter or cutters A with the chase C, of corresponding shape, arranged substantially in the manner described, and for the purpose specified.

2. In combination with the changeable cutter or cutters A, and chase C, of corresponding shape, the spring-follower D, as and for the purpose set forth.

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Witnesses:

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L. P. COUPLAND.