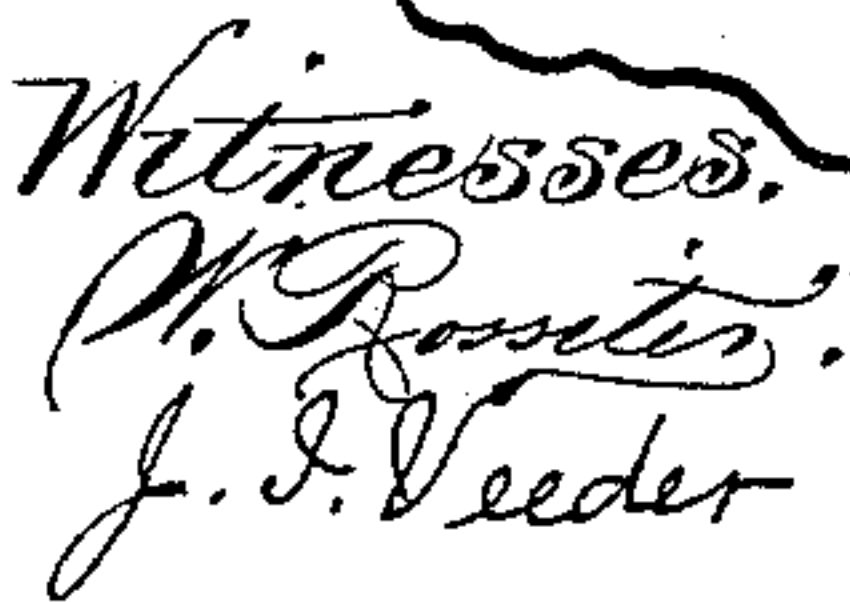



3 Sheets—Sheet 1.

No. 379,271.

Patented Mar. 13, 1888.



P  *Inventors.*
Nils Englund
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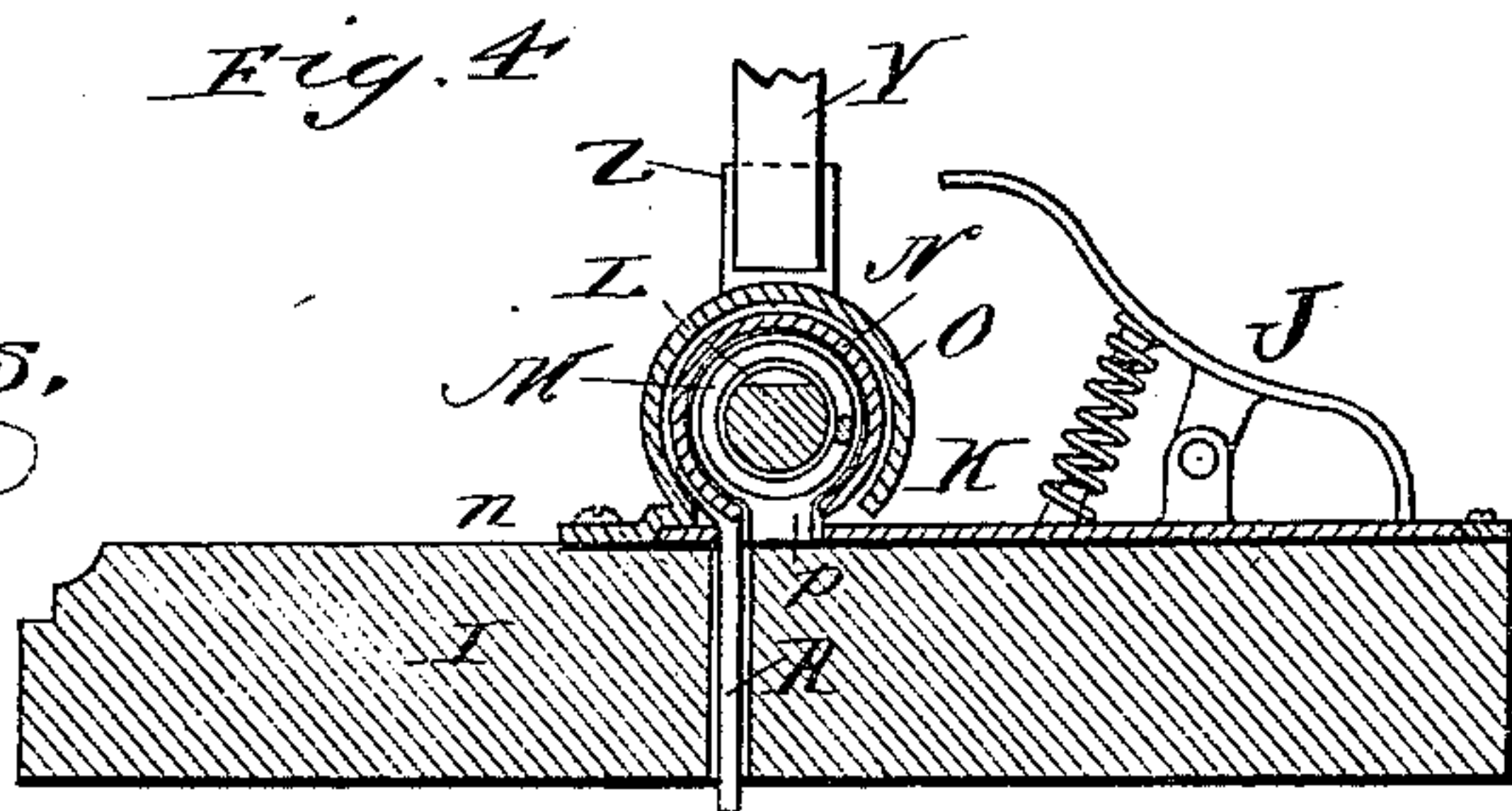
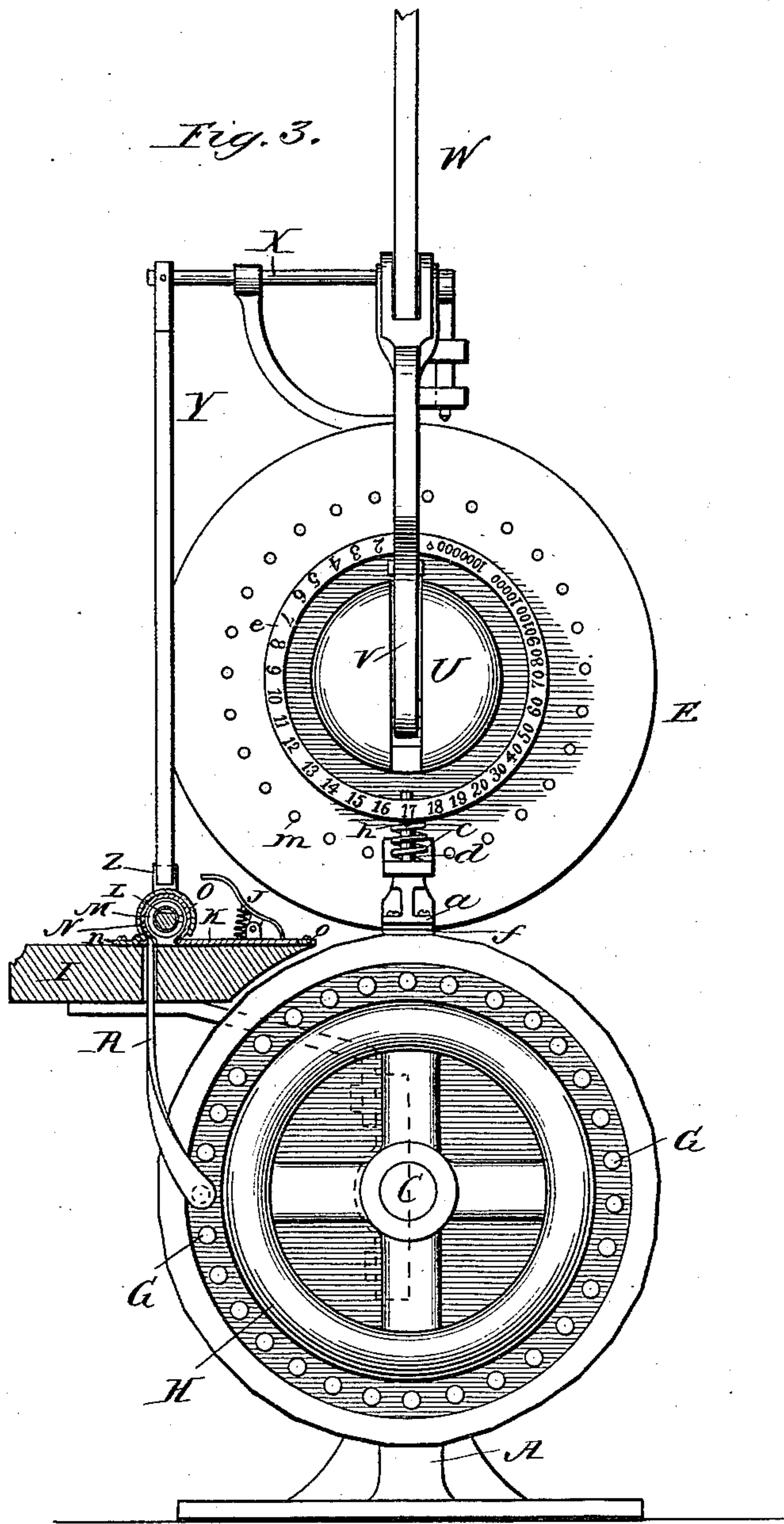
(No Model.)

3 Sheets—Sheet 2.

N. ENGLUND & O. OHLSON.
PERFORATING STAMP.

No. 379,271.

Patented Mar. 13, 1888.



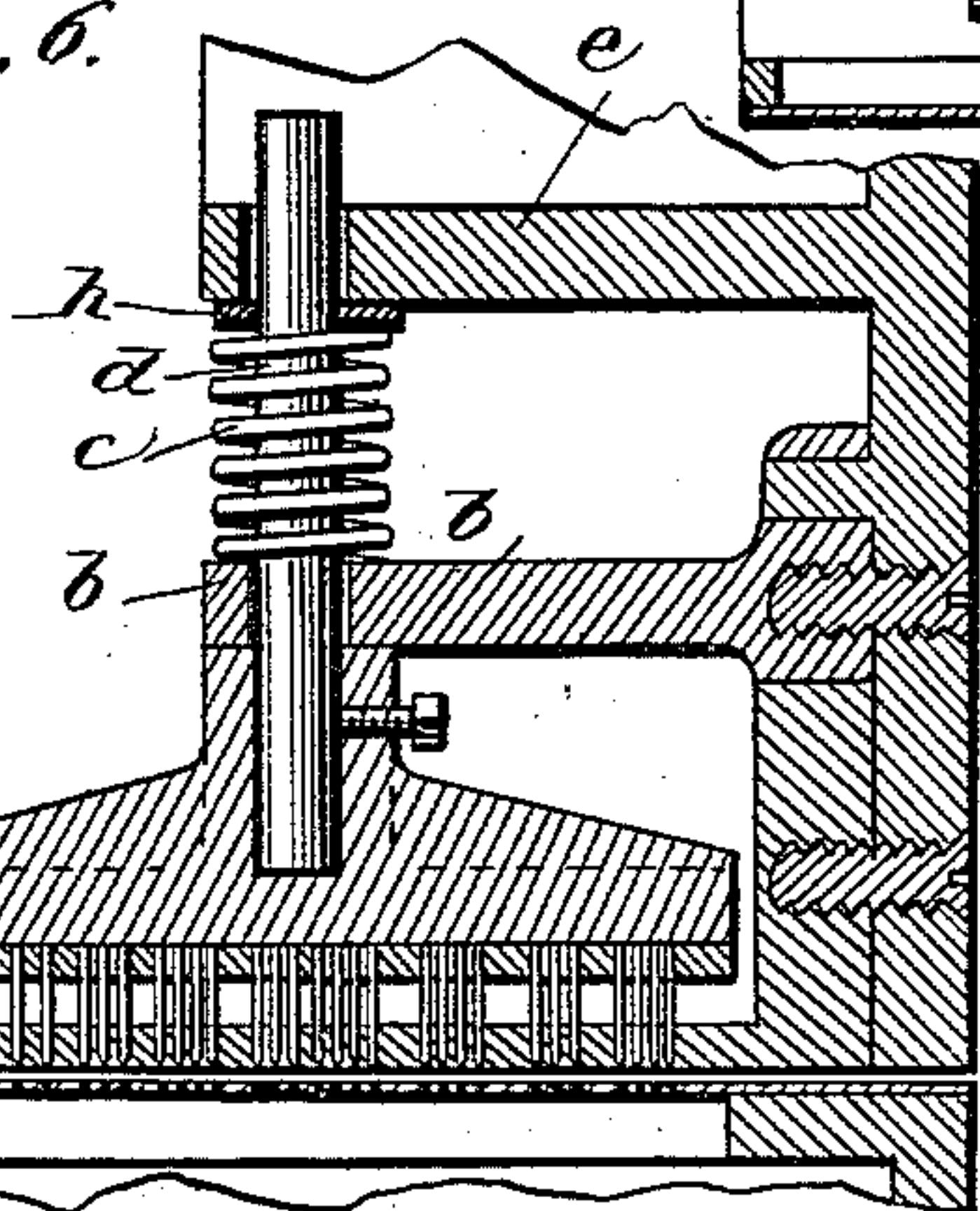
Witnesses,
N. Englund
J. J. Decker

Inventor
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By *Raymond Quincy*
Atty.

3 Sheets—Sheet 3.

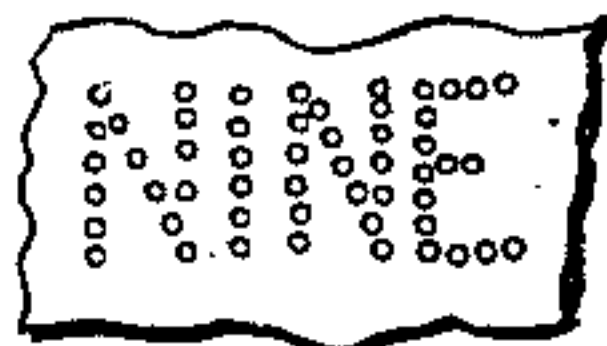
PERFORATING STAMP.

Patented Mar. 13, 1888.



W. Bonner &
J. I. Veeder &

Fig. 7.



Inventor,

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Atty's

UNITED STATES PATENT OFFICE.

NILS ENGLUND AND OLOF OHLSON, OF CHICAGO, ILLINOIS.

PERFORATING-STAMP.

SPECIFICATION forming part of Letters Patent No. 379,271, dated March 13, 1888.

Application filed February 21, 1887. Serial No. 228,313. (No model.)

To all whom it may concern:

Be it known that we, NILS ENGLUND and OLOF OHLSON, both of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Perforating Stamps, of which the following is a specification.

Our invention relates to that class of perforating-stamps used more especially for perforating checks, which punch or pierce the paper, so as to prevent the alteration of the check, draft, or note.

Our invention is designed to punch or pierce in the check the amount thereof as expressed in words arranged in a straight line, and for that purpose is provided with an automatic feed so arranged as that after the punching of each word the paper will be fed just enough to present a clear space for the next word with a uniform spacing between the words.

Our invention consists in the parts in combination, hereinafter described and claimed.

In the drawings, Figure 1 is a side, Fig. 2 a plan, (both partly in section,) and Fig. 3 a front view, of our machine. Fig. 4 is a cross-section on the line *x x*, Fig. 1. Fig. 5 is a vertical section. Fig. 6 is an enlarged section of the die and punches, and Fig. 7 shows the appearance of the letters which we prefer to employ and which are produced by the punches and dies shown in Fig. 6.

A is the frame of the machine, shaped somewhat like the letter G, through which pass the shafts B and C, said shafts having keyed at one end the equal gears D E, meshing with each other, and at the other end the flanged disks E G.

Referring, now, to Fig. 5, it will be seen that the disk E has a flange, *e*, at some distance from its edge. In the space between the flange *e* and the edge of the disk E is fastened the punching mechanism, consisting of a guide and clearer, *f*, and the punch-plunger *a*, having a stem, *d*, guided by brackets *b* and flange *e*, which is pierced for that purpose. Pins *m m* around the disk E are for the purpose of steadying the brackets *b b*. Surrounding the stem *d* is a spring, *c*, abutting against the bracket *b* and the collar *h*, secured to stem *d*.

Within the flange *e* is a boss, U, fitting over the hub of disk E, or over the shaft B, which may revolve in the boss U. The latter is held

in place by a screw, *k*, projecting into an annular groove in the shaft B or in the hub of the disk E. In the boss U slides a plunger, *V*, actuated by a lever, W, and connection V, the fulcrum of the lever W being at X. The punch-plunger *a*, the guide *f*, and the flange *g* of disk G have a series of corresponding holes forming the outlines of the letters of the word desired, and the punch-plunger *a* has secured in these holes a series of punches, (marked *l*,) for which the corresponding holes in the flange *g* form dies.

In the drawings but one plunger-head *a*, with its appurtenances, is shown; but it is to be understood that as many of them are to be ranged around the disk E as are necessary to include all the desired words, and figures, also, if it be desired to use them. Each plunger, of course, contains a single word.

All the plungers are duplicates of that shown in detail in Fig. 6, except that the punches are arranged in different outlines to produce the various words required. The spacing or arrangement around the disk E of the punch-plungers is merely one of convenience, depending on the number of words, &c., used. If spaced, as indicated, by the pins *m*, Fig. 3, provision is had for any amount up to a million.

H is a hand-wheel on the shaft C, used for turning the disk, so as to bring the proper punches and corresponding dies into action. To bring the disks accurately into position after they have been placed approximately by hand, the pin *i*, having a pointed end, is attached to the lever W, so that on the depression of the lever the pin *i* enters a hole, *j*, in the edge of disk E.

Having described the punching devices, we proceed to the feeding devices.

Sliding in guides *n o* on the table I is a plate, K, to which is pivoted the paper-clip J. Attached to the plate K at its front end is the rack-bar L. The back end of the rack-bar L is guided by the piece *p*, which projects from the table I through a slot (*vide* Figs. 1 and 2) cut in the plate K nearly from end to end. Surrounding the rack-bar L for a portion of its length is a spiral spring, M, which is itself surrounded by a tube, N, slotted below, and outside of all is the guide O, secured to the table I. The front end of the spring M abuts against the tube N and the back end against the piece *p*. (*Vide*

Fig. 1.) The shaft X, which is secured to and forms the fulcrum of lever W, has affixed to it the flexible arm Y, which extends to the lug Z, attached to the tube N.

5 R, Figs. 1 and 3, is an arm projecting through a slot in the table I from the tube N, and carrying at its lower end the finger S. In line with the finger S is one of a series of graduated studs or stops, T, the purpose of which
10 will be explained when describing the operation. The pawl P is attached to the tube N and engages in the teeth of the rack-bar L. In front of the pawl P is another pawl, Q, fixed to the table I and inclined in the opposite direction to the pawl P. The spring of
15 pawl Q holds it out of contact with the rack-bar L, except when the advance of the pawl P presses down the pawl Q, when it stops both the pawl P and the rack-bar L. A lug or pin
20 may be substituted for the pawl Q if the plate K be made to move with so much friction as to render it not liable to move farther than it is impelled by the spring M and pawl P.

The operation is as follows: The check is held
25 by its top edge in the clip J, the pawl P is raised, and the clip J, with its attached plate K and rack-bar L, is slid back till the check is in proper position for receiving the first word. At this time the tube N is pressed forward by the spring
30 M as far as the stop or pawl Q will allow, the lever W being fully raised. The disks E G are turned till the proper word is in position. The handle W is then depressed, and the pin i enters the hole j, so as to bring the disks ac-
35 curately into position. The further depression of the handle drives the punches through the paper by the action of the plunger V' on the stem d. The depression of the handle W also revolves the shaft X, and, through the arm Y,
40 drives back the tube N until the finger S, connected to the tube, strikes the stud T, after which the arm Y yields if the handle W be further depressed.

It is obvious that the punching-lever must
45 descend an equal amount each time, while the feeding device will be stopped at varying points by the graduated stops. The connection Y must therefore be yielding.

On raising the handle W the spring c raises
50 the punches l, and the spring M impels the tube N forward, carrying with it the rack-bar L, the plate K, and the clip J, thus feeding the paper forward in readiness for the next word. The amount that the paper is fed varies with the length of the word just punched.
55 The tube N is always stopped at the same point by the pawl or stop Q, so that the distance it feeds the paper forward depends upon the distance it is carried back by the arm Y.

This distance is regulated by the space be- 60
tween the finger S and the stud T, so that by providing studs T, &c., of varying lengths around the disk G, which will be in turn brought opposite the finger S as different words
65 are brought in position for punching, a variable feed is produced corresponding to the varying lengths of the words punched.

It is plain that the location of studs T in the disk G rather than in disk E is a matter of convenience only, the arm and finger R S
70 being more out of the way and the disk G being less filled up than the disk E, with its punches, &c. We may employ needle-pointed punches, which need no die or matrix, in which case the lower disk, G, may be dispensed with
75 by putting stops T on the disk E.

The essential parts of our complete device consist of a disk or disks having ranged about the circumference stamps or punches to form the words or figures desired and having a se- 8c
ries of stops of varying length, a clip for holding the check and a device for feeding the clip, said device being actuated by an elastic connection with the punching-lever and limited in its movement by a fixed stop at one end of
85 its stroke and by the graduated stops upon the disk at the other end of its stroke.

We claim—

1. The combination of disks connected to rotate together, one carrying punches, the 90
other carrying dies, and having a series of graduated stops, a clip for holding the check, a rack and pawl for feeding the clip, a spring impelling the pawl in one direction to a fixed stop, an elastic connection to the punch-actu- 95
ating device moving the pawl in the other direction, and a finger carried by the clip coacting with the graduated stops, substantially as and for the purpose described.

2. In a perforating-stamp, the combination 100
of a clip, a projection or finger attached to the clip, graduated stops coacting with said finger, and an elastic connection between said clip and the punching mechanism, substantially as shown and described. 105

3. In a perforating-stamp, the device for giving an automatically-varied feed, consisting of graduated stops T, finger S, arm R, pawl P on tube N, inclosing spring M, and rack-bar L, attached to paper-clip J through plate 110
K, and connected by spring-arm Y to handle W, all combined substantially as described.

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Witnesses:

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