

No. 668,069.

Patented Feb. 12, 1901.

F. B. R. UNGER.
HAND PRINTING DEVICE.

(Application filed Mar. 10, 1900.)

(No Model.)

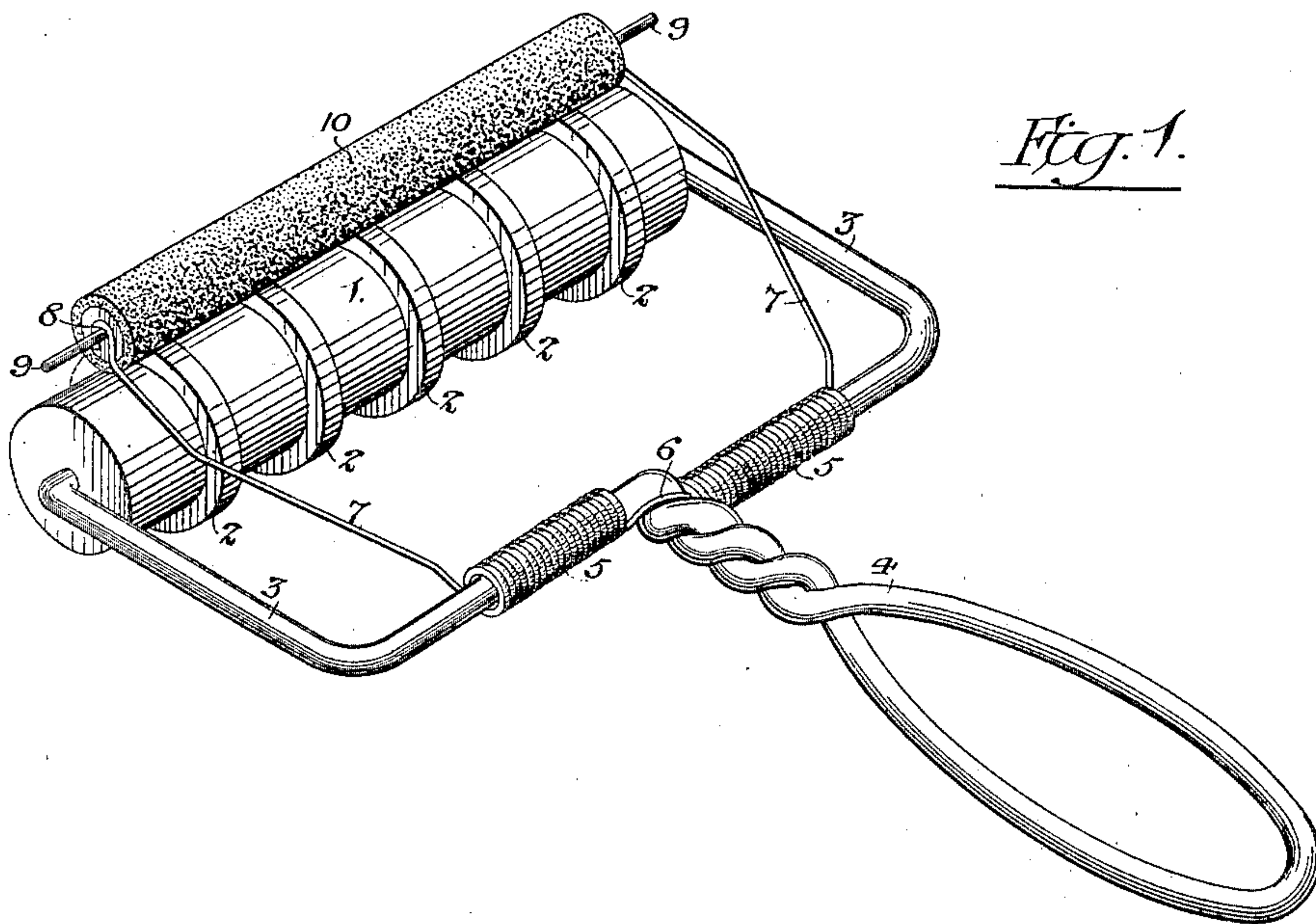


Fig. 1.

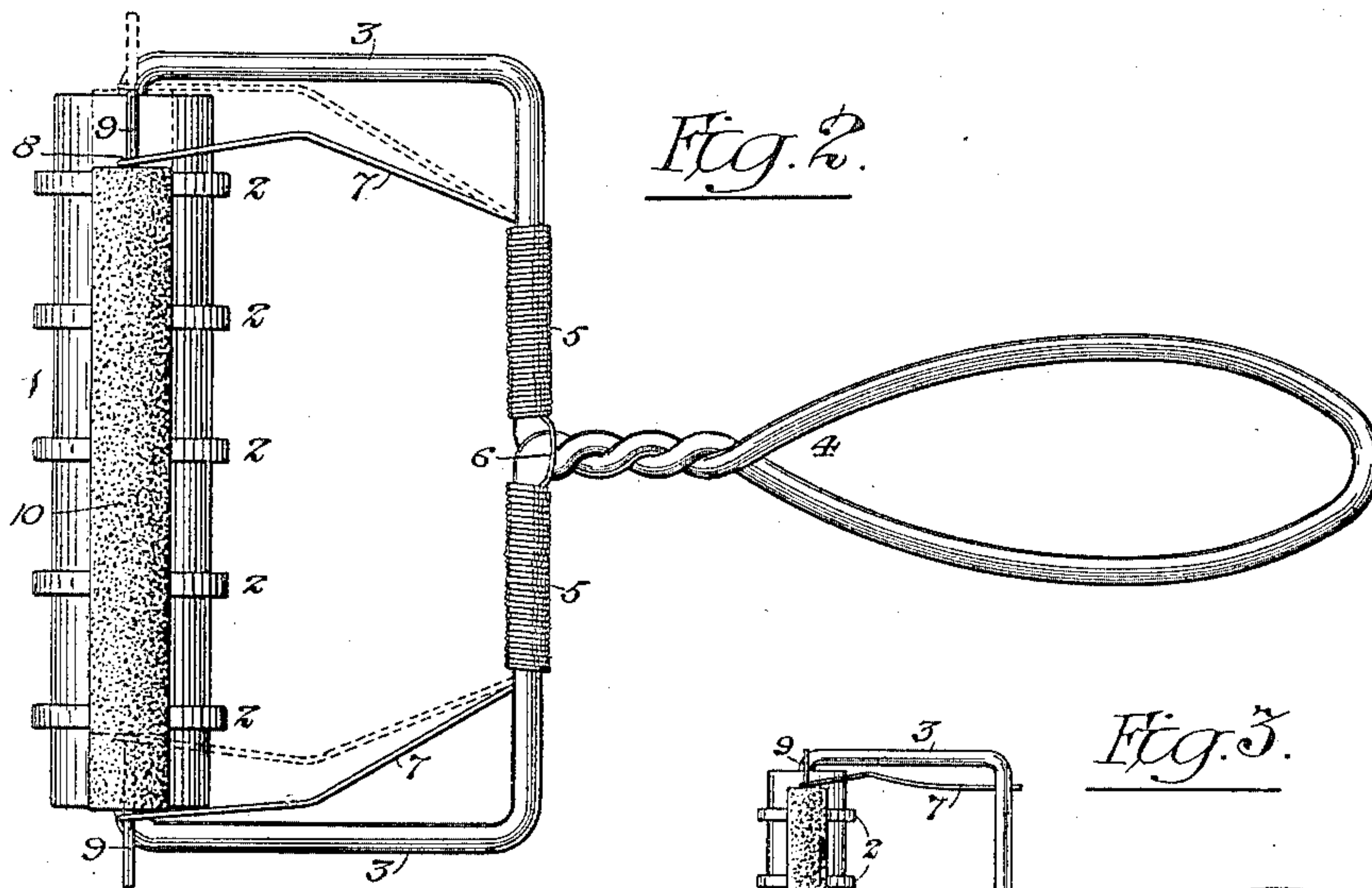


Fig. 2.

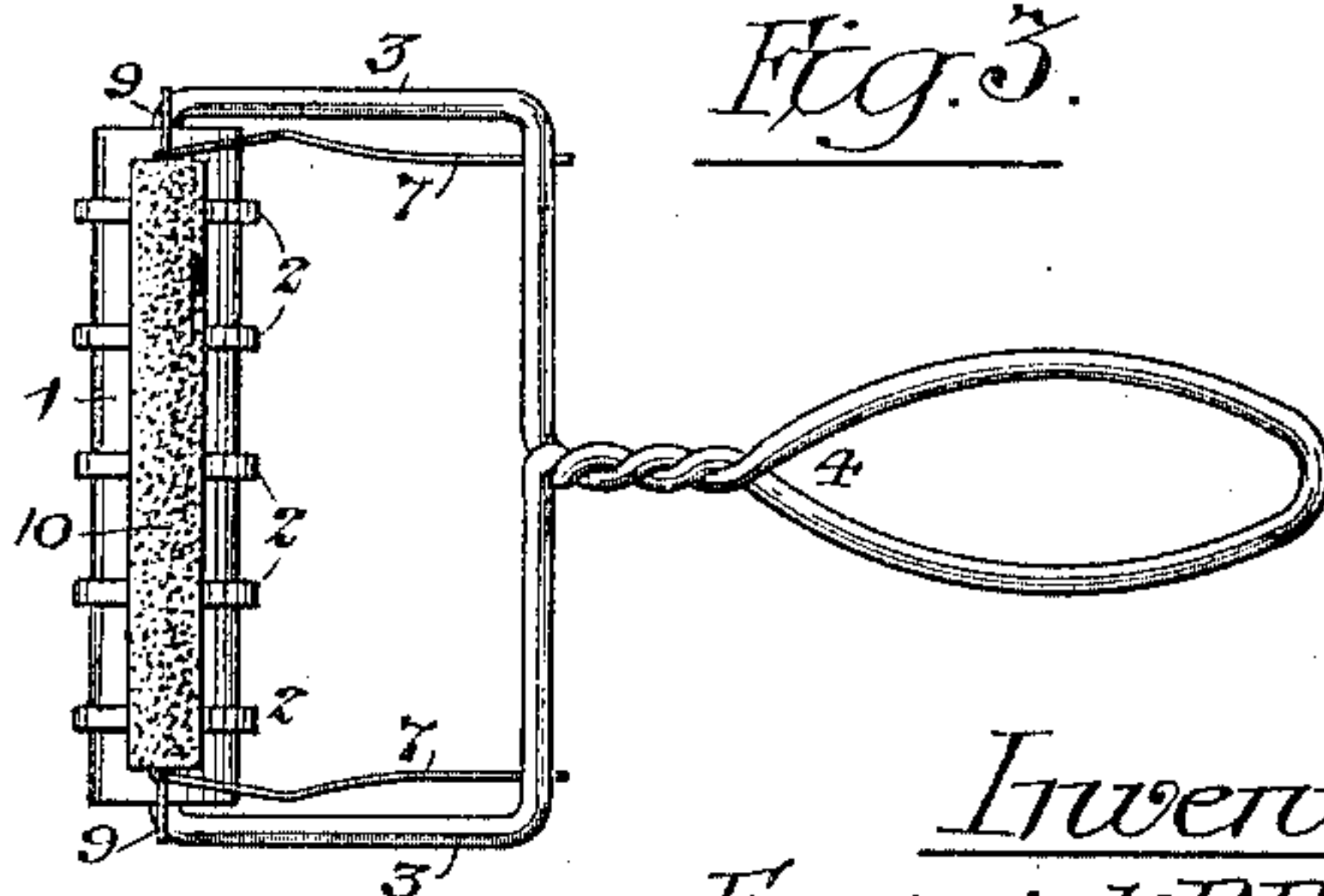


Fig. 3.

Witnesses:-

F. E. Bechtold

Wm. H. Whitehead.

Inventor:-

Frederick B. R. Unger

By His Attorneys:-

Howell & Howson

UNITED STATES PATENT OFFICE.

FREDERICK B. R. UNGER, OF PHILADELPHIA, PENNSYLVANIA.

HAND PRINTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 668,069, dated February 12, 1901.

Application filed March 10, 1900. Serial No. 8,160. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK B. R. UNGER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Hand Printing Devices, of which the following is a specification.

The object of my invention is to provide teachers of music with a simple, convenient, and inexpensive device for printing upon a sheet of paper a series of lines constituting an enlarged or exaggerated representation of a musical staff.

In the accompanying drawings, Figure 1 is a perspective view of a printing device embodying my invention. Fig. 2 is a top or plan view of the same, and Fig. 3 is a view representing another embodiment of my invention.

In teaching singing to classes of pupils of music it is customary to employ sheets of paper containing enlarged or exaggerated representations of the musical staff, these sheets being placed upon the wall, so as to be visible from all portions of the room, and there has constantly arisen a demand for a cheap and simple printing device whereby these enlarged representations of the musical staff can be prepared by the teacher as occasion arises for their use, and my invention has been devised to meet this demand.

The device comprises a drum or cylinder 1, having upon it five projecting and evenly-spaced ribs or flanges 2, corresponding to the five lines of the musical staff, this drum or cylinder being mounted so as to be free to turn upon the inwardly-bent ends of a U-shaped frame or yoke 3, preferably composed of a piece of wire which has first been bent and twisted so as to form a handle 4, the whole constituting a very inexpensive form of frame and handle for the drum 1. Another and lighter wire is wrapped around the laterally-projecting portions of the yoke 3, so as to form coils 5, connected by a bent loop 6, which bridges the stem of the handle 4, the opposite ends of this light wire projecting from the outer ends of the coils 5 in the form of arms 7, which are hooked or looped at their outer ends 8 for the reception of the shaft or spindle 9 of an inking-roller 10, covered with felt or other absorbent material and saturated with ink of any appropriate character. The

resiliency of the coils 5 and projecting arms 7 causes the pressing of this inking-roller upon the ribs or flanges 2 of the drum 1. Hence when the latter are pressed downwardly upon a sheet of paper and moved forwardly over the same they will be caused to turn beneath the inking-roller 10, thereby rotating the latter, which properly inks the surfaces of the ribs or flanges, the latter transferring the ink to the sheet of paper. The elasticity of the arms 7 also permits free lateral movement of the inking-roller 10 in respect to the drum or cylinder 1, so that all portions of said inking-roller are available for applying ink to the flanges 2, whereas if the inking-roller occupied a fixed lateral position limited portions only of its surface would be available for inking the flanges. Lateral movement of the inking-roller may be effected by pressure of the finger upon either of the arms 7. The inking-roller can be readily released from the control of the spring-arms 7 by slipping its spindle 9 out of the hooks 8 and reinking of the roller can thus be readily accomplished.

While my printing device has proven to be very effective for the purpose intended, it will be apparent that its construction is such as to reduce its cost to the lowest point, while the simplicity of construction reduces to a minimum the possibility of its getting out of order.

While I prefer in all cases to employ the coils 5 as a means of contributing to the resiliency of the arms 7, which carry the inking-roller, I may in some cases rely wholly upon the resiliency of the arms themselves, such construction being illustrated, for instance, in Fig. 3, in which the arms 7 are represented as passing at their inner ends through openings in the laterally-extending portions of the yoke 3, to which said inner ends of the arms may be rigidly secured.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A printing device consisting of a drum or cylinder having a series of projecting ribs or flanges thereon, a handle having a yoke in which said drum is mounted so as to be free to turn, an inking-roller bearing upon the ribs of the drum and arms carried by the yoke and providing bearings for the spindle of said roller, said arms having such resiliency that

they press the roller against the ribs of the drum and also permit lateral movement of the roller, substantially as specified.

2. A printing device consisting of a drum
5 or cylinder with a series of ribs or flanges thereon, a handle having a yoke in which said drum is mounted so as to be free to turn, an inking-roller bearing upon the ribs of the drum, and spring-coils on the laterally-pro-
10 jecting arms of the yoke, said coils terminat-

ing in arms which have at their outer ends bearings for the spindle of the inking-roller, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of 15 two subscribing witnesses.

FREDERICK B. R. UNGER.

Witnesses:

F. E. BECHTOLD,

JOS. H. KLEIN.