

(No Model.)

R. WITTMANN.

AUTOMATIC LEAD AND CRAYON HOLDER.

No. 253,803.

Patented Feb. 14, 1882.

Fig: 1.

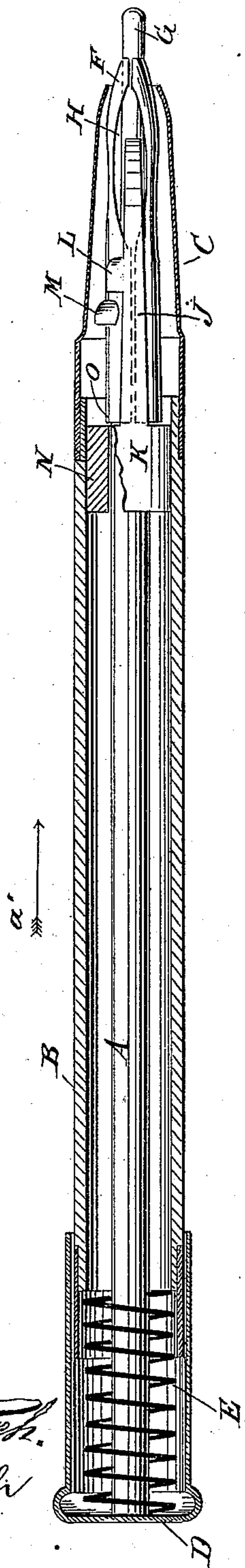


Fig: 2.

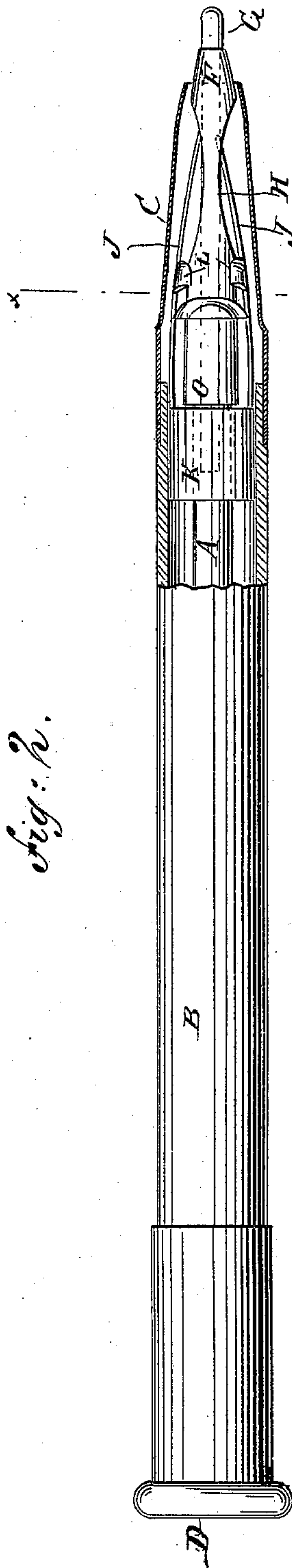


Fig: 3.

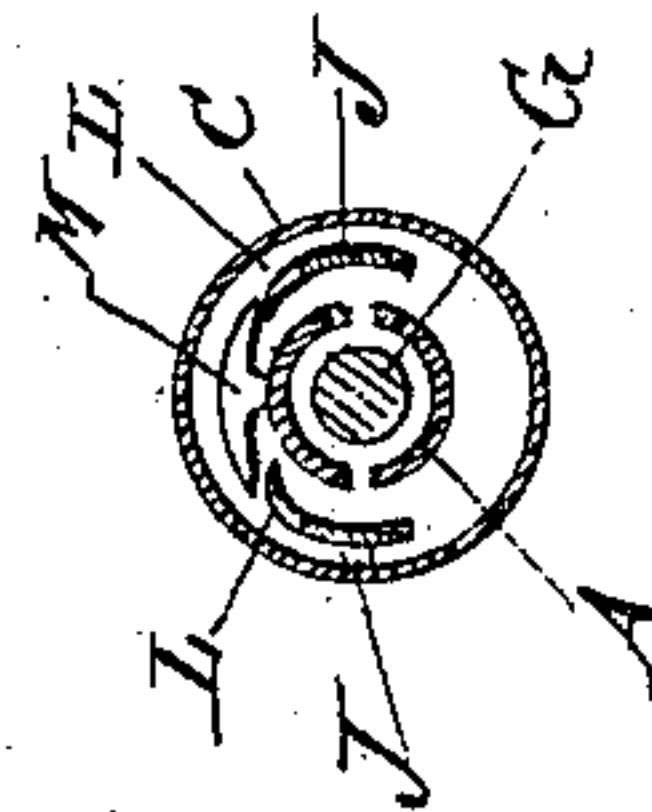
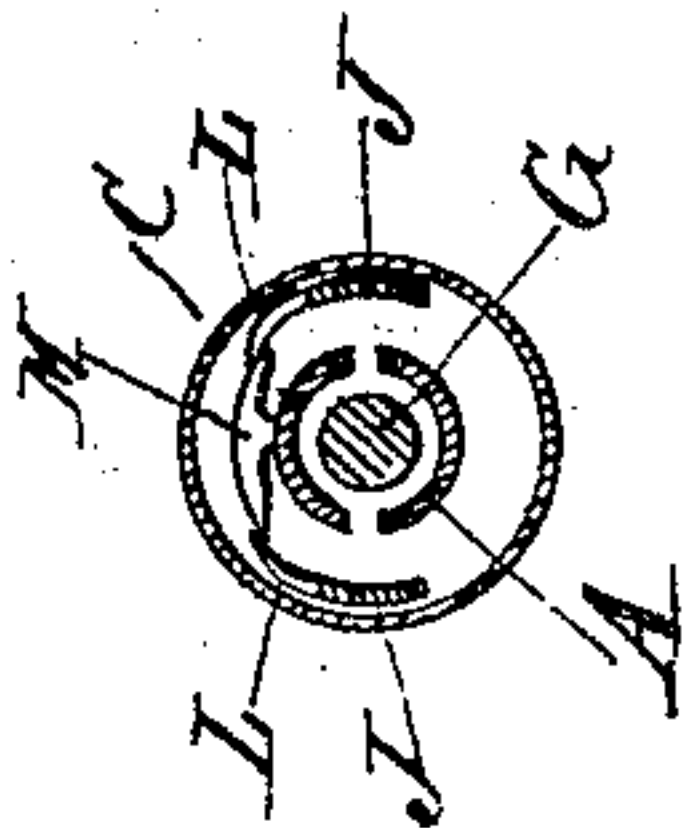


Fig: 4.



WITNESSES:

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AUTOMATIC LEAD AND CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 253,803, dated February 14, 1882.

Application filed November 11, 1881. (No model.)

To all whom it may concern :

Be it known that I, RUDOLF WITTMANN, of the city, county, and State of New York, have invented a new and Improved Automatic Lead and Crayon Holder, of which the following is a specification.

The object of my invention is to provide a new and improved lead and crayon holder, in which the lead or crayon is projected the requisite distance out of the front end of the holder, to permit writing with it, by pressing on the rear end of the holder.

The invention consists in a lead or crayon holder provided with two fixed spring-strips, which grasp the lead or crayon in the longitudinally slotted and longitudinally moving lead or crayon receiving tube, which spring-strips are provided with beveled lugs bent over the lead-receiving tube, which is provided with a beveled and curved cam-plate, which separates the spring-strips when the lead-receiving tube is pushed forward, but does not act on them when the lead-receiving tube returns, so that they hold the lead or crayon during this latter movement of the lead-receiving tube, causing the lead or crayon to be projected from the end of receiving-tube a short distance.

In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of my improved lead and crayon holder. Fig. 2 is a longitudinal plan view of the same, the front end parts shown in section. Fig. 3 is a cross-sectional elevation of the same on the line *xx*, Fig. 2, the lugs of the clamping-springs being shown below the cam-plate of the lead or crayon receiving tube. Fig. 4 is a cross-sectional elevation of the same on the same line, the lugs of the clamping-springs being above the cam-plate of the lead or crayon receiving tube.

Similar letters of reference indicate corresponding parts.

The lead or crayon receiving tube A is contained loosely in a sleeve or tubular or like casing or sheath, B, of wood or metal, ivory, or other suitable material, and provided at its front end with a tapering or conical nozzle or casing, C, from which the lead or crayon is to project. The lead or crayon receiving tube A is attached to a cap, D, fitting on the rear end of the sheath, and pressed from this end of this sheath by a spiral or other spring, E, rest-

ing on the inner surface of the head of the cap and against the end of the sheath; or the spring can be arranged in any other suitable manner to press the cap in the direction from the rear end of the sheath. The front or outer end, F, of the lead or crayon receiving tube A is split or provided with incisions, and is slightly tapered, so as to hold the lead or crayon G. In place of splitting the end F of the tube A it may be provided with a rubber ring or spiral spring-ring or other device that will produce sufficient friction to hold the lead or crayon G, for it is to be distinctly understood that this front or outer end, F, of this tube A is not split to form movable jaws, but simply to provide sufficient friction or spring tension to hold the head or crayon. A short distance from its front end, F, this tube A is provided with two longitudinal slots, H, on opposite sides.

Two spring-strips, J, are attached to or made integral with a collar, K, surrounding the tube A and rigidly attached to the inside of the casing or sheath B, the front ends of the spring-strips passing through the slots H and clamping the lead or crayon G on opposite sides.

Each spring-strip J is provided with a lug, L, projecting from the upper (or lower) edge and bent over the tube A, as shown in Fig. 3, which lugs are located precisely opposite each other, and are slightly inclined or beveled upward from the front toward the rear end of the tube A, as Fig. 1 shows.

The tube A is provided on its upper (or lower) side with a transverse cam-plate, M, inclined or beveled upward from the front toward the rear of the tube A, and the projecting ends of this cam-plate are slightly curved downward, so as to leave small spaces between the projecting parts of this cam-plate and the tube A, as shown in Figs. 3 and 4. The ends of this cam-plate are slightly beveled outward from the front toward the rear of the tube A. This cam-plate M is a short distance behind lugs of the spring-strips, as shown in Figs. 1 and 2. A collar, N, through which the tube A can pass, is inserted in the collar K of the strips J, and the tube A is provided with a shoulder, O, or stud or projection directly in front of the collar N.

The spring-strips J can be made independ-

ent of each other, and need not necessarily be attached to the sheath or casing B in the manner described, but can be attached to the sheath or casing in any other suitable manner.

5 The lugs L and the cam-plate M are described as being attached to the upper side of the tube A, but may be attached to the under side, their bevels being changed accordingly, as they will be just as operative.

10 The operation is as follows: Ordinarily the parts are in the position shown in Figs. 1 and 2. If the pressure is exerted on the cap D, the tube A will be pressed forward in the direction of the arrow a' , the lead or crayon moving with it, for the cam-plate M passes under the lugs L, which slide up the beveled surfaces of the cam-plate, whereby the front ends of the spring-strips J will be separated, thereby releasing the lead or crayon G, and after the lugs L have passed over the cam-plate M the spring-strips J will snap together again and will grasp the lead or crayon a short distance behind the place they held it grasped before the tube was pushed forward. If the pressure is now removed from the cap D, the spring-strips J will not be separated and will retain their gripe on the lead or crayon G. As the spring-strips are held firmly to the casing or sheath B and firmly grasp the crayon, and as the tube A moves in the reverse direction of the arrow a' , the lead or crayon will be projected from the end of the tube A a short distance—that is, a distance of about one-fourth of an inch, more or less—thus permitting the end of the crayon to be used to write or mark with, this distance being equal to the distance the cap D is pressed toward the rear end of the sheath or casing B. The shoulder O strikes against the collar N and prevents the spring E from drawing the tube A too far into the casing.

The tubular end casing or nozzle C is not part of the mechanism, and only serves to cover the mechanism. The lead or crayon can never

drop from the tube A, and by pressing on the cap D is only projected a distance sufficient to permit writing with it. After use it is pushed back into the tube A.

The lead or crayon holder can, if desired, be constructed without the spring in the cap D. However, the construction with the spring is preferred, as one of the movements will then be automatic. If desired, the arrangement of the holder may be reversed, the tube A being attached rigidly to the sheath B and the cap D fixed to the spring-strips J, which will then be movable longitudinally; but this is only a colorable variation of the construction shown, which is preferred.

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

1. In a lead or crayon holder, the combination, with the sheath, of a longitudinally-movable lead or crayon receiving tube provided with longitudinal slots and with a cam-plate, and of spring-strips provided with lugs, substantially as herein set forth.

2. In a lead or crayon holder, the combination, with the sheath, of a longitudinally-movable lead or crayon receiving tube provided with longitudinal slots and with a cam-plate, of spring-strips provided with lugs, of a cap at the rear end of the sheath, and of a spring for pressing this cap from the rear end of the sheath, substantially as herein set forth.

3. In a lead or crayon holder, the combination, with the sheath B, of the longitudinally-slotted lead or crayon receiving tube A, provided with a transverse cam-plate, M, the spring-strips J, provided with lugs L, the shoulder or projection O, and the collar N, the tube A being longitudinally movable in the sheath B, substantially as herein set forth.

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Witnesses:

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