

(No Model.)

M. DITTENHOEFER.
LEAD OR CRAYON HOLDER.

No. 290,178.

Patented Dec. 11, 1883.

Fig. 1.

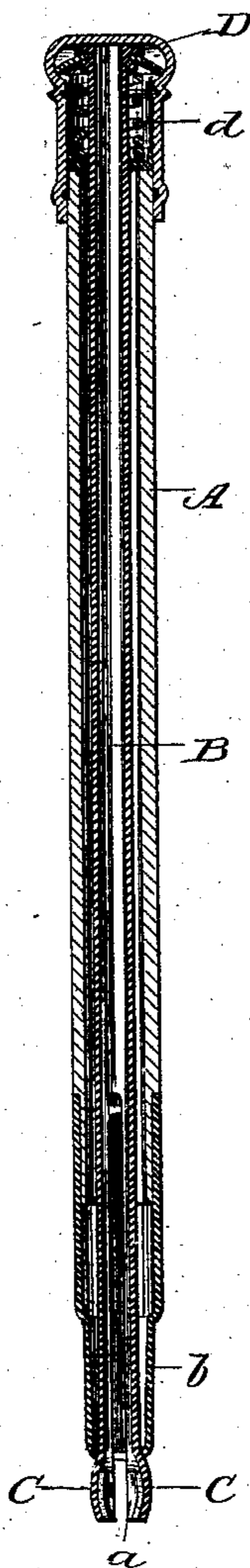


Fig. 2.

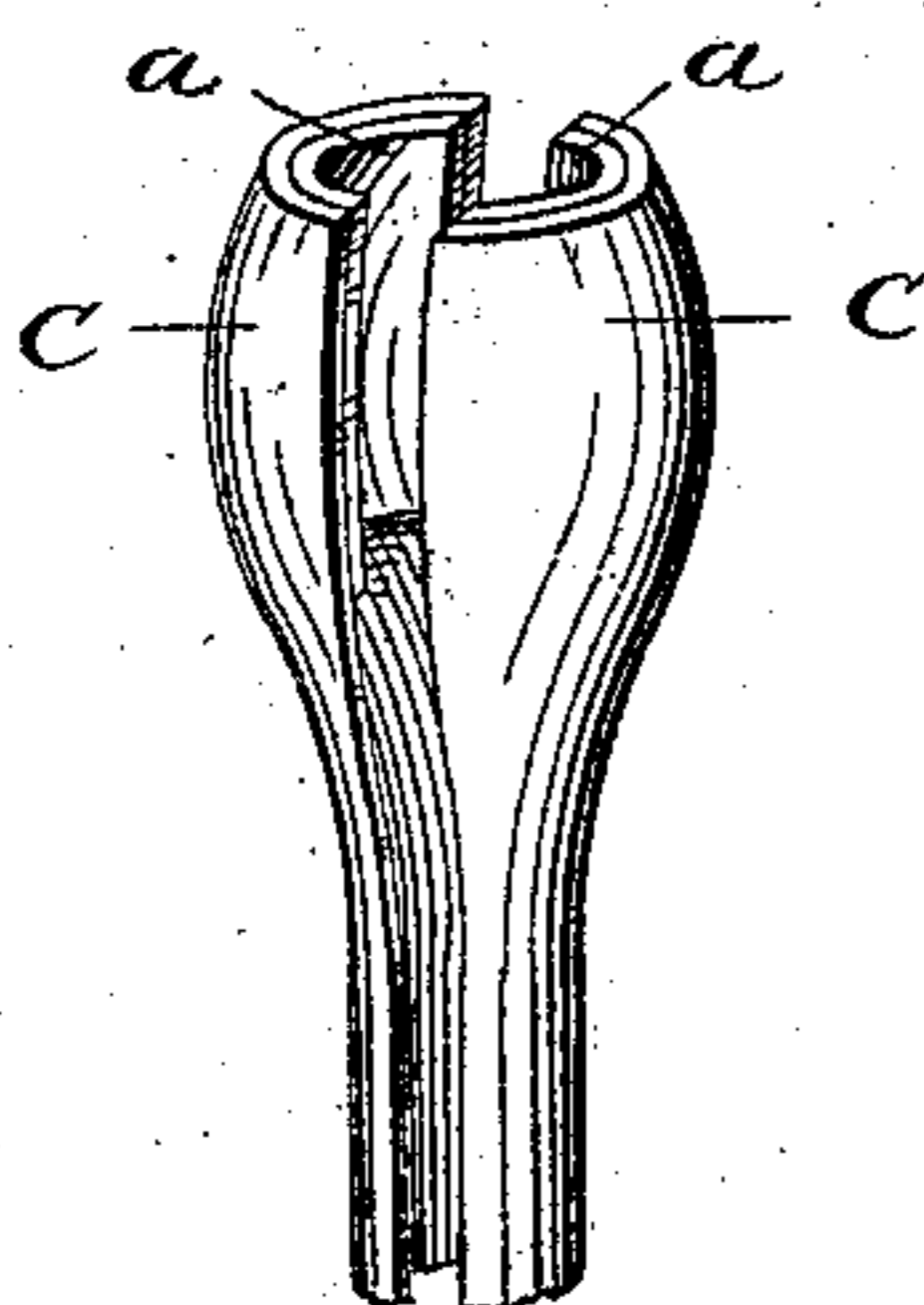
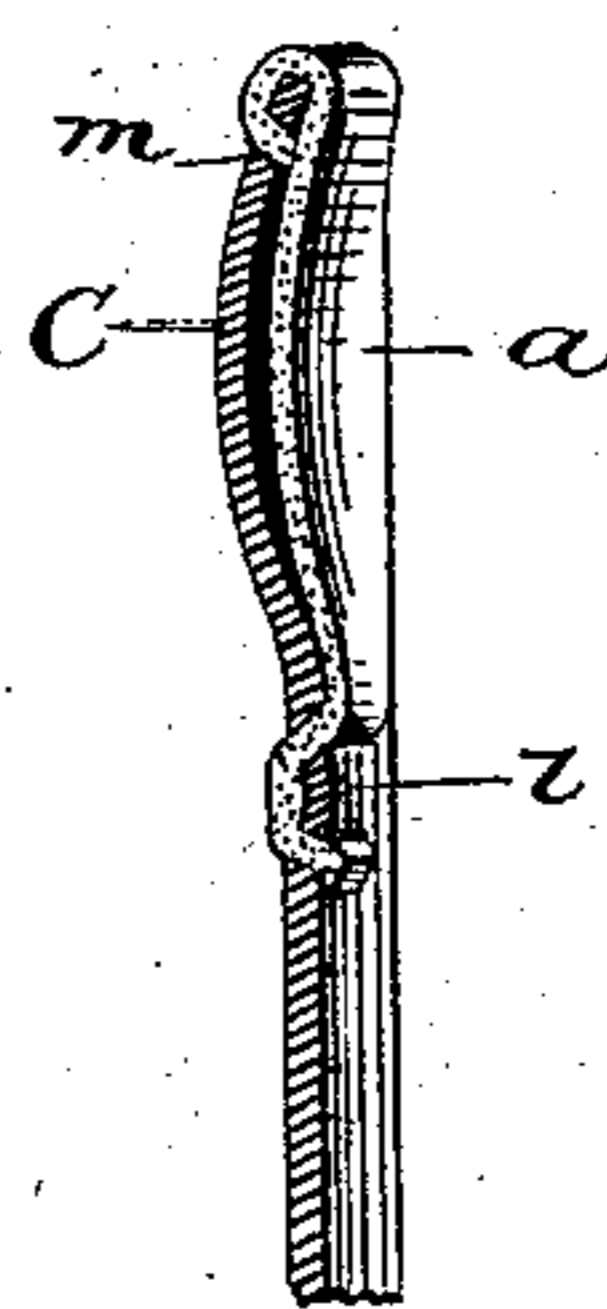


Fig. 3.



Witnesses

E. W. L. S. S. S.
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Inventor

Myer Dittenhoefer
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UNITED STATES PATENT OFFICE.

MYER DITTENHOEFER, OF NEW YORK, N. Y., ASSIGNOR TO HENRY
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LEAD OR CRAYON HOLDER.

SPECIFICATION forming part of Letters Patent No. 290,178, dated December 11, 1883.

Application filed October 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, MYER DITTENHOEFER, of the city, county, and State of New York, have invented certain new and useful Improvements in Lead and Crayon Holders, of which the following is a specification.

This invention has mainly reference to that class of lead and crayon holders in which the lead-grasping device is caused to maintain its hold on the lead by the force of a spring, and it is particularly designed to meet the needs of what is now known in the market as the "Automatic" holder. In pencils of this character the lead-grasping device, consisting, mainly, of jaws, is, with a view to durability and for other reasons, made of metal.

In view of the fact that the pressure by which the device closes on the lead is a spring or yielding pressure, which renders uncertain a mere clamping action for the reason that flat smooth clamping surfaces will not at all times be held by spring-pressure, with sufficient force to prevent the lead from slipping between them, it has been customary to form the acting-faces of the lead-grasping device so that they will bite the lead. The lead in this way is held tight; but experience has demonstrated that the continued pressure of these biting-edges upon the lead, induced by the spring action, has the effect of causing the lead to be scored, worn away, and cut to such an extent that the protruding point very frequently breaks off when the pencil is in use, and the adjustment of the lead in the jaws, owing to its scored and cut exterior, is rendered at times difficult.

It has been my object to remedy this difficulty, and this result I have attained by lining or coating the acting-faces of the lead-grasping device—that is to say, those parts of the device which bear upon and take hold of the lead—with a somewhat soft material, which, while preventing the injurious biting action due to the contact of sharp metal surfaces with the lead, still permits a firm hold to be taken, and, by the frictional resistance which it offers when in contact with the lead, affords a very secure means for retaining the lead securely in position and for preventing it from slipping. The

material which I find on the whole best suited for the purpose is soft vulcanized rubber; but very good results can be obtained from other materials known in the arts—such, for instance, as chamois-leather, cork, or other equivalent for the purpose.

The accompanying drawings represent an automatic lead and crayon holder such as manufactured by the Eagle Pencil Company, and well known in the market, containing my improvement.

Figure 1 is a longitudinal central section of the holder. Fig. 2 is a perspective view on enlarged scale of the jaws. Fig. 3 is an enlarged longitudinal section of one of the jaws, representing one of the numerous ways in which the rubber or equivalent lining can be applied and secured thereto.

It is not necessary to describe minutely the structure of the holder, for this is now well known. A holder of this type is fully shown and described in reissued Letters Patent No. 8,967, dated November 18, 1879, to which reference may be made. It is sufficient to say that A is the case, and b its contracted nozzle or tip. C C are the jaws. B is the longitudinally-movable lead-tube. D is the pressure-cap, and d is the retracting-spring.

My improvement is embodied in the jaws C, which constitute the lead-grasping device in this holder. The acting-faces of these jaws are, as shown, coated or lined with thin strips or pieces a of soft rubber, which either may be vulcanized previously to being put in place, or may be applied to the jaws in "green" condition, and then vulcanized, as will be readily understood by those acquainted with the art of manufacturing vulcanized rubber.

The rubber or other equivalent material for the purpose, can manifestly be secured in a variety of ways to the jaw. One convenient arrangement is shown in Fig. 3. In this case the strip of material is held at its rear by passing between the body of the metal, and a loop, l, formed by slitting the metal crosswise, which loop is first bent inward to permit the strip to pass, and is then bent back into place, as represented. The strip at the front is bent around over the end of the jaw, and upon the outside

thereof is secured by having its end inserted in a cross-slit, *m*, in the jaw. I am thus enabled simply and inexpensively to entirely remove the difficulty hereinbefore referred to.

5 The efficacy of the improvement is particularly noticeable in connection with what are known as "aniline" or "ink" leads, and other comparatively soft and pliable marking compounds.

10 In a holder which has the grasping device covered or lined in accordance with my invention, very much thinner sticks or leads of such compounds can be employed than has been practicable heretofore. Indeed this is true of
15 all kinds of leads. It is a desideratum to use these leads, for they do not require sharpening to the extent that thick leads do; and by my improvement I am enabled to use with safety leads so small as to virtually retain at
20 all times without sharpening a good point for writing purposes.

My improvement, as hereinbefore stated has been designed with special reference to holders whose grasp on the lead is maintained by
25 spring-pressure; and it is with such holders that I design mainly to use it. It can, however, manifestly be advantageously applied to any holder in which the jaws or lead-grasping

devices exercise a biting or nipping action on the lead, and indeed may be applied to any
30 lead-clamping devices of lead and crayon holders where it is desired to have yielding or soft acting-surfaces, which, under comparatively slight clamping pressure, will offer considerable frictional resistance to the slipping back
35 of the lead inclosed between them.

What I claim herein as new and of my invention is—

1. In a lead or crayon holder, a lead grasping or clamping device whose acting-faces are
40 lined or covered with rubber or its equivalent, substantially as and for the purposes hereinbefore set forth.

2. In a lead or crayon holder in which the lead-grasping device is caused to maintain its
45 hold on the lead by spring-pressure, the combination, with the acting-faces of said spring-controlled lead-grasping device, of rubber or its equivalent, applied thereto, substantially as
50 and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 21st day of September, 1883.

MYER DITTENHOEFER.

Witnesses:

C. S. BRAISTED,
JOHN QUINTAVAL.