

(No Model.)

C. HANIMANN.
TUBE ERASER.

No. 447,873.

Patented Mar. 10, 1891.

Fig. 1.

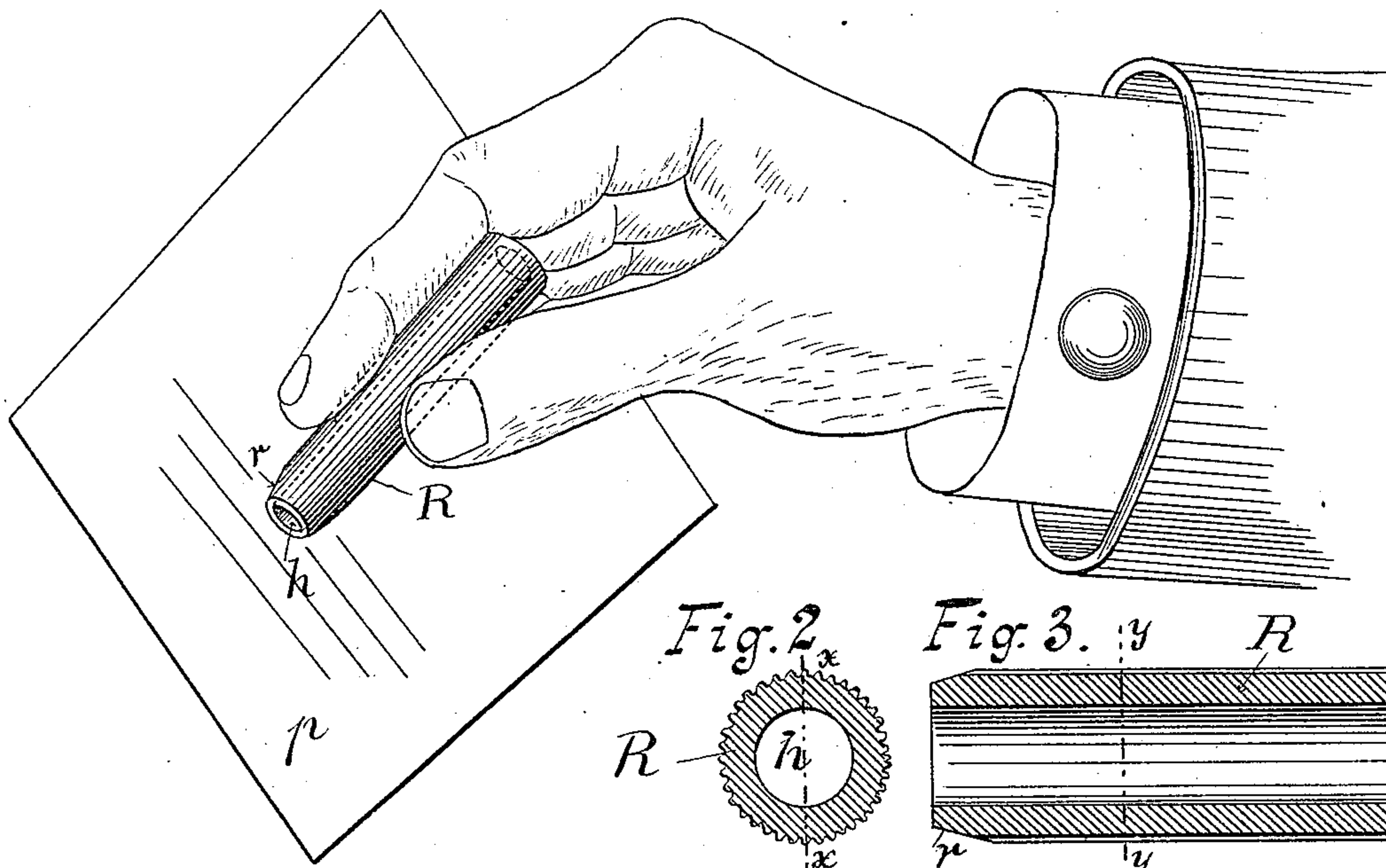


Fig. 2.

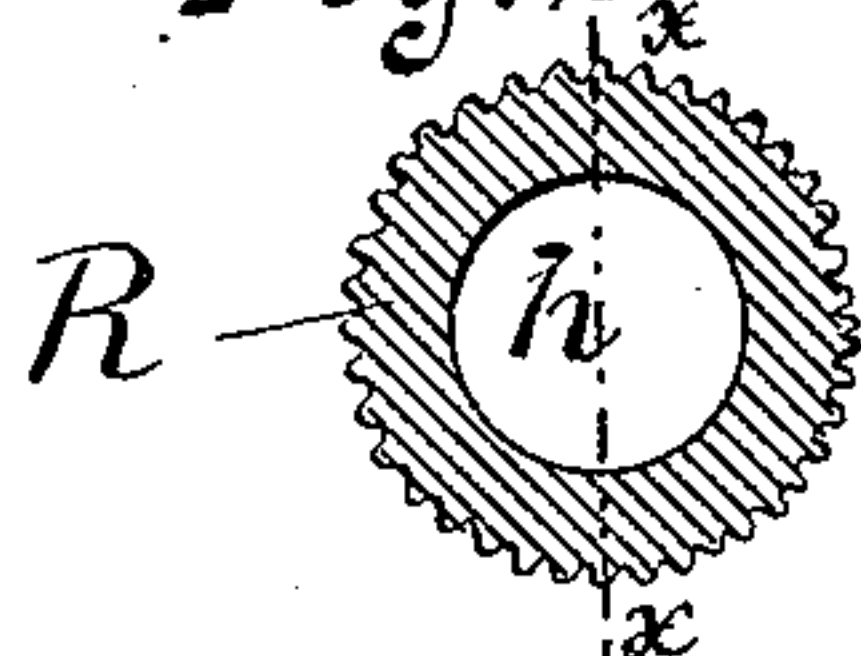


Fig. 3.

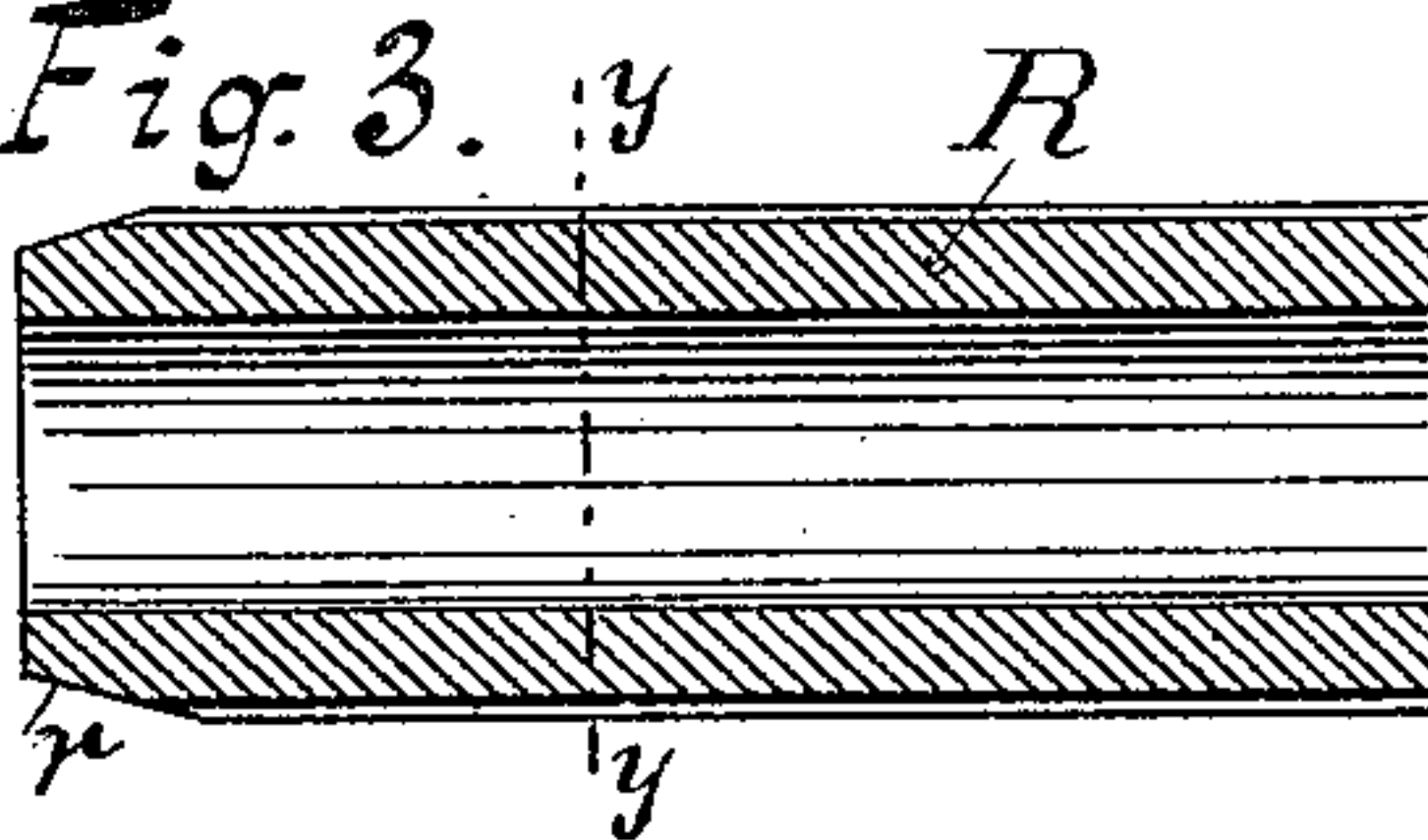


Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

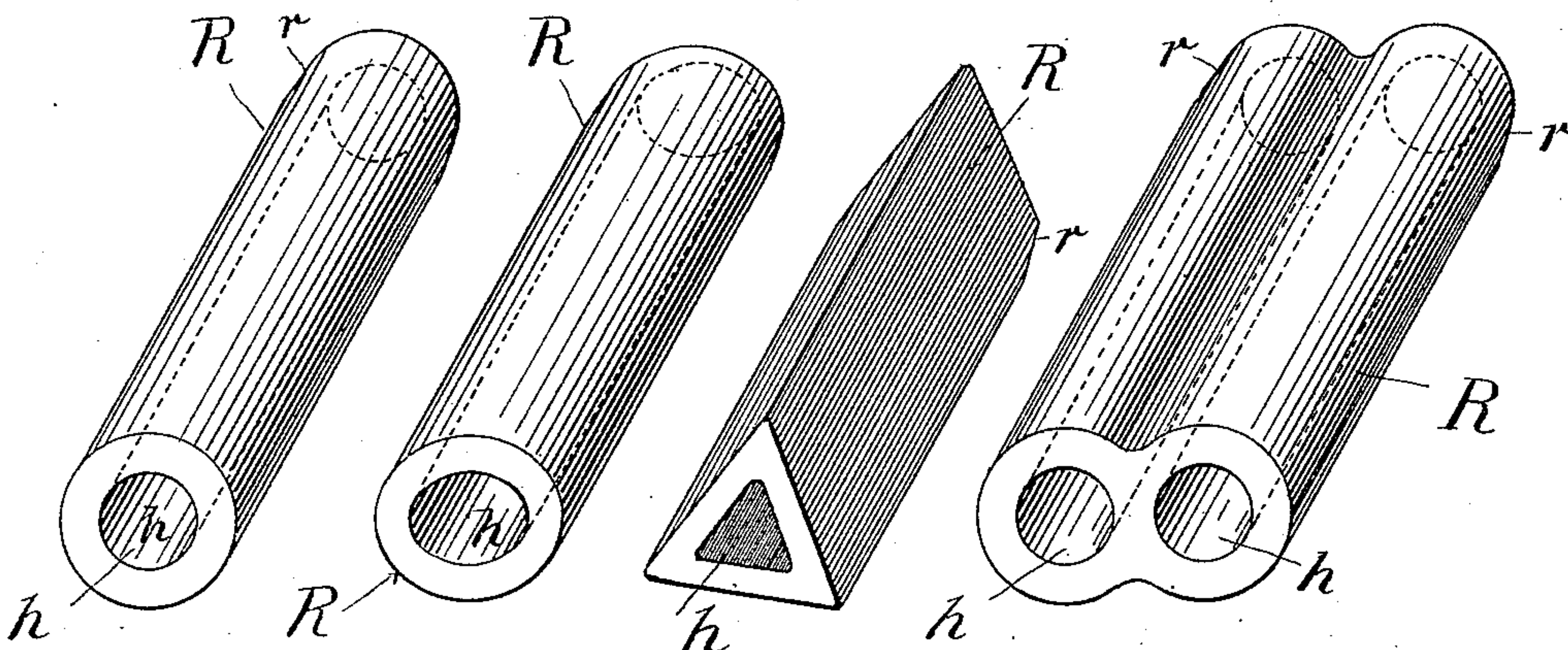
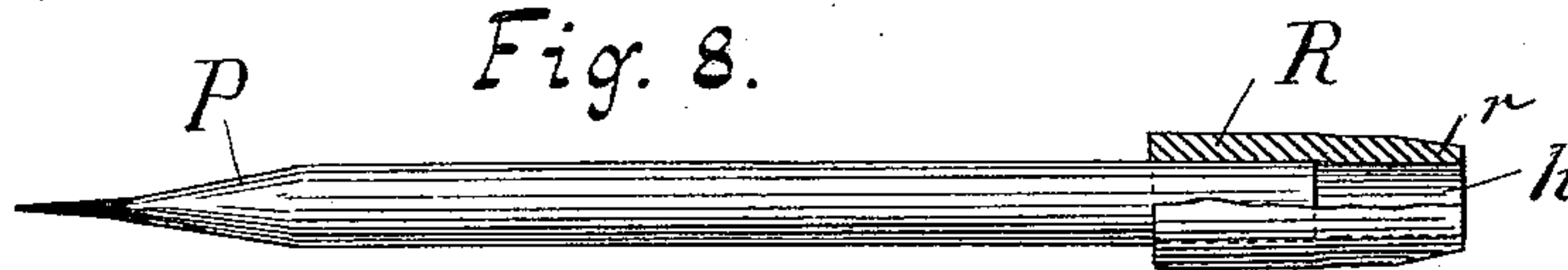


Fig. 8.



Witnesses
Fred. Kirchner
Rev. Dr. Henry Miller.

Inventor
Charles Hanimann

By

Attorney

J. O. Finkel

UNITED STATES PATENT OFFICE.

CHARLES HANIMANN, OF NEW YORK, N. Y.

TUBE ERASER.

SPECIFICATION forming part of Letters Patent No. 447,873, dated March 10, 1891.

Application filed June 13, 1890. Serial No. 355,338. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HANIMANN, a citizen of the United States, and a resident of New York, county and State of New York, have invented a certain new and useful Improvement in Tube Erasers, of which the following is a specification.

My invention relates to that class of articles ordinarily designated as "erasers," and in particular to pencil and ink erasing appliances which are commonly constructed out of rubber, and has for its object the provision of a device simple in construction, cheap in manufacture, economical, and efficient in practical use.

To attain the desired end my invention consists in the construction and arrangement of the appliances hereinafter fully described, and pointed out in the claims.

In the drawings which form a part of this specification, Figure 1 represents a perspective view of my tube eraser as it appears in the hand of an artist when in practical use. Fig. 2 is a transverse vertical section on the line *yy*, Fig. 3. Fig. 3 is a longitudinal vertical section on the line *xx*, Fig. 2. Figs. 4, 5, 6, and 7 represent perspective views of articles of various contours and forms constructed according to my invention; and Fig. 8 represents my device used in combination with a lead-pencil.

Like letters of reference wherever they occur indicate corresponding parts in all the figures.

In the use of erasers as heretofore constructed—namely, in the form of blocks or plates—great trouble has been experienced on account of the rubber becoming heated by use, and much difficulty also has resulted from efforts to erase lines between others which do not require to be rubbed out by reason of the impracticability of maintaining for any length of time a small and sharp edge or erasing-surface on erasers of the ordinary form. In order to obviate these disadvantages and to provide an eraser which will be cheaper in manufacture, that will not become heated in use, that will always present a small and sharp erasing-surface, and that will allow the obliteration to be more thoroughly accomplished while requiring less careful manipulation and gaining increased speed over what has been hith-

to attained, I have invented the appliance hereinafter described as follows, to wit:

Referring to the drawings, R represents a preferably cylindrical tube provided upon its outer portion with a longitudinally or approximately longitudinally corrugated surface for convenience in grasping my eraser and holding the same in any position that may be required in use. The tube R is provided ordinarily with one smooth longitudinal bore, channel, or orifice *h*, which usually conforms in contour with the configuration of the outer surface of the said tube R. A small sharp edge or erasing portion *r* is thereby formed which will always be maintained as long as the eraser can be used.

My device is also adapted, by reason of the orifice *h*, to be used in combination with and to be applied to the end of a pen or pencil P, as is clearly shown in Fig. 8.

My eraser may be varied in form—as, for example, it may be circular, oval, or triangular in cross-section, and may be provided with one or more interior channels or orifices *h*, as represented in the drawings.

I prefer to make my tube eraser of rubber vulcanized and treated with emery, although the same may be constructed of any suitable material or combination of materials.

As before stated, my eraser is economical in construction, as a saving of about one-half in material is made against solid pieces of greater diameter and length or of equal outside proportions.

My device may be seized with a firm grasp and held with steadiness and precision by means of the exterior corrugations, and a large cleansing-surface which constantly presents a sharp erasing-edge (on account of the small wall-thickness of the device) is maintained, thereby greatly facilitating the erasing of lines between other lines not to be rubbed out.

By reason of the peculiar form of eraser shown, all disadvantage of the same becoming heated is avoided entirely or largely reduced by the greatly-increased radiating surface (and outside and inside ventilation) in proportion to the rubbing or erasing surface. Any obliteration can also be much more thoroughly done and with greater ease than heretofore without requiring the care and

watchfulness, lest the drawing be injured, that has to be exercised with the erasers now in use. This I accomplish by means of the greater elasticity and pliability of the body of my appliance, which constantly keeps in good order and always maintains the same shape.

Another great advantage of my eraser is the economy of its use by reason of the assistance or re-enforcement given while in use by the rubber particles worn off by attrition, and which are confined within the walls of my eraser when held in a vertical position, which particles may be used over and over again for an indefinite period.

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

1. As a new article of manufacture, an eraser consisting of a hollow rubber tube pro-

vided with longitudinal corrugations on its outer surface, and with a smooth interior bore, whereby a sharp and even circumferential edge is always maintained, substantially as described.

2. The combination, with a pencil, of an eraser consisting of a hollow rubber tube provided with longitudinal corrugations on its outer surface, and with a smooth interior bore, whereby a sharp and even circumferential edge is always maintained, substantially as described.

In testimony of the foregoing specification I do hereby sign the same in the city of New York, county and State of New York, this 10th day of June, A. D. 1890.

CHARLES HANIMANN.

Witnesses

J. ODELL FOWLER, Jr.,
LOUIS A. HILL.