

(No Model.)

G. K. CUMMINGS & F. W. MUSSON.
PENCIL.

No. 572,105.

Patented Dec. 1, 1896.

Fig. 1.

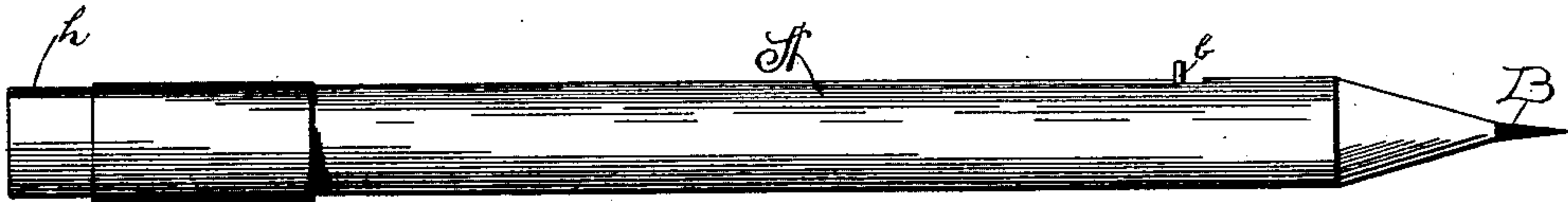


Fig. 2.

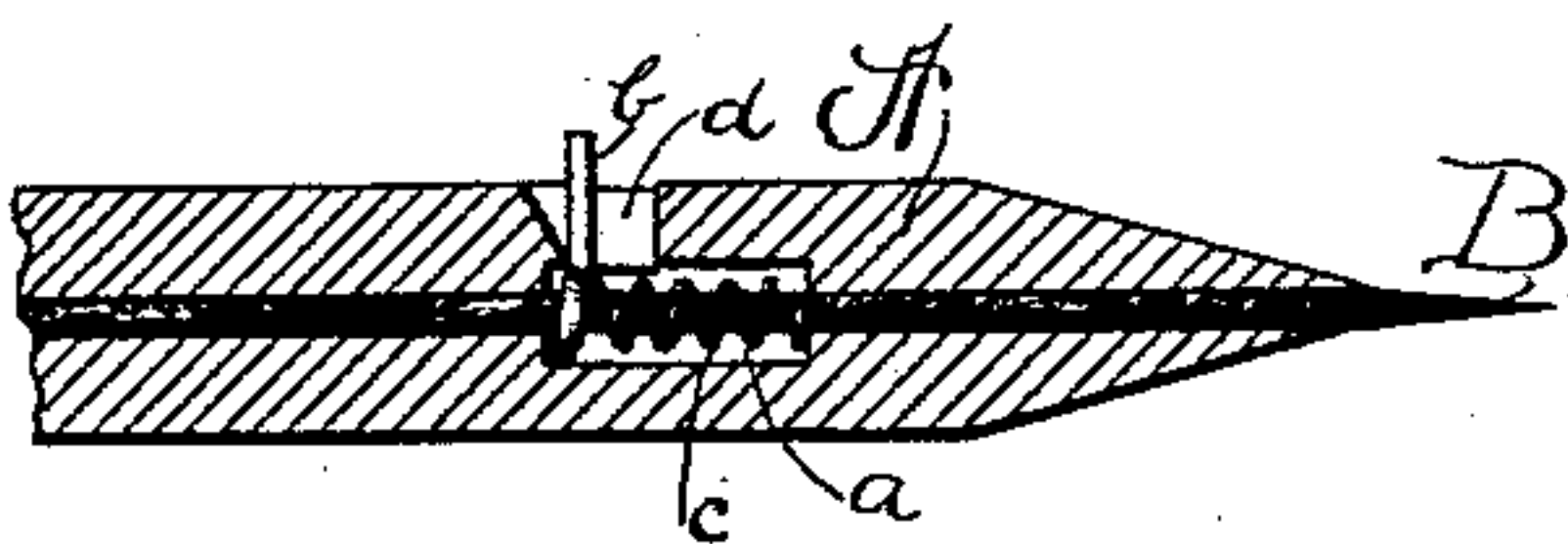


Fig. 3.

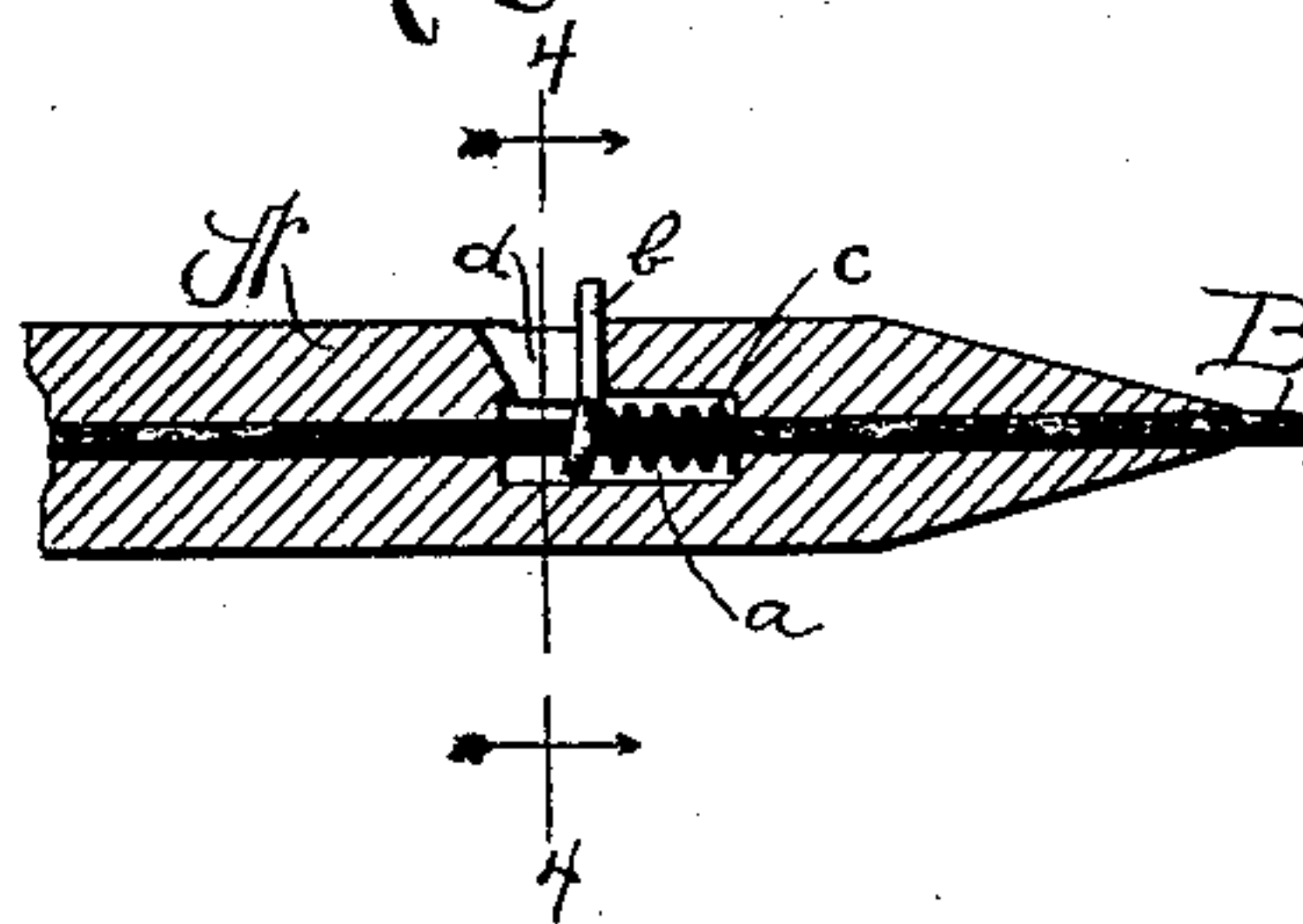


Fig. 6.

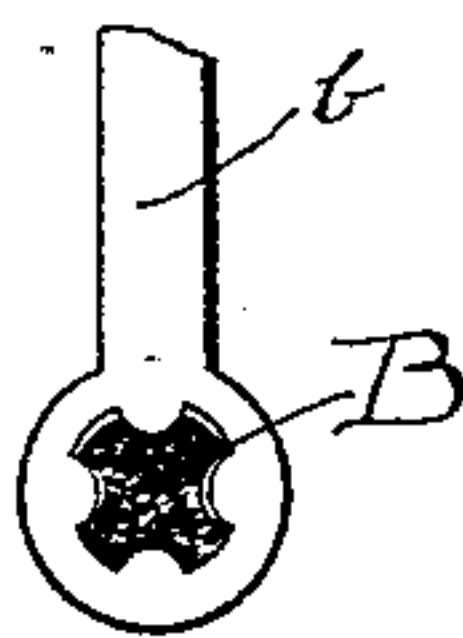


Fig. 5.

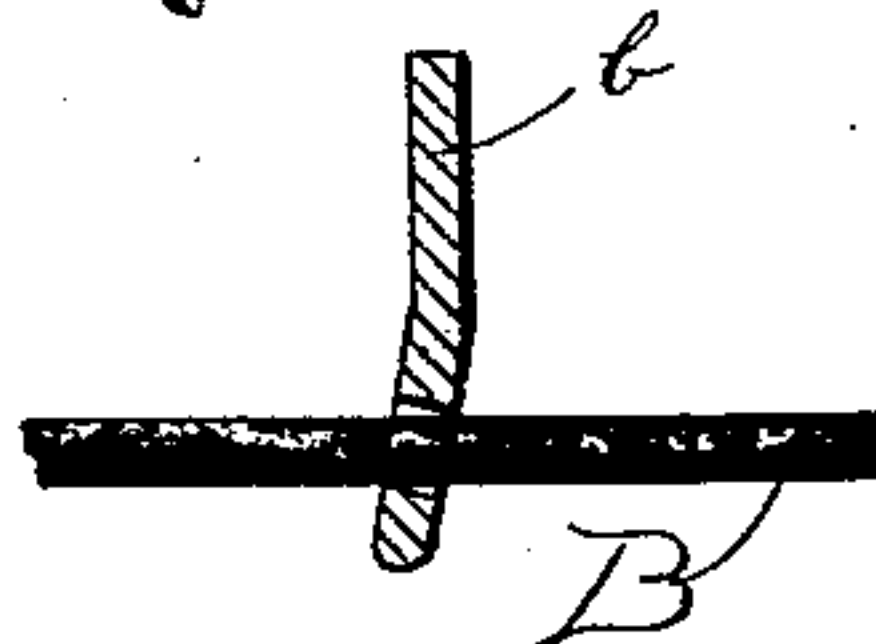


Fig. 4.

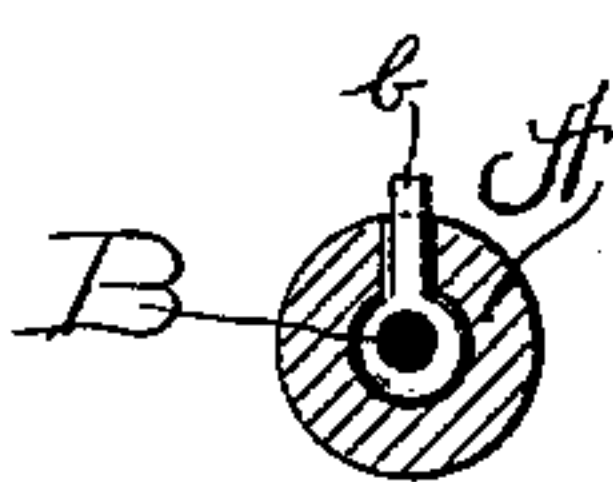


Fig. 9.

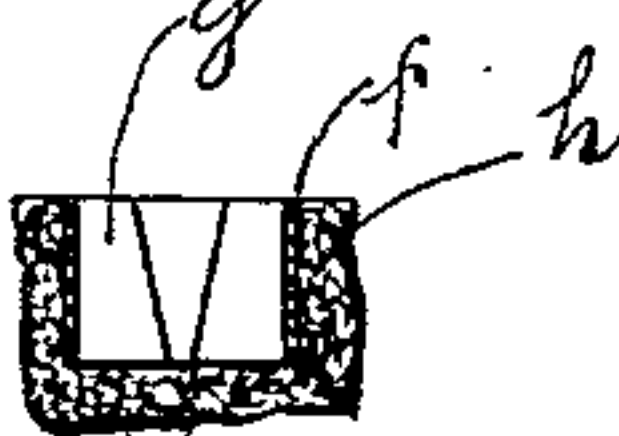


Fig. 8.

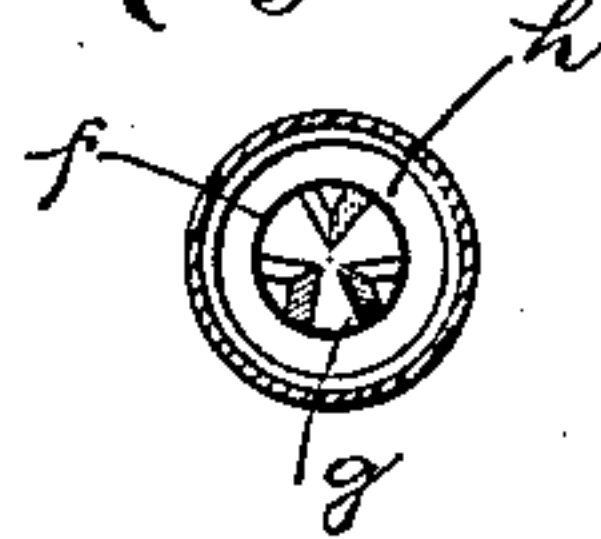
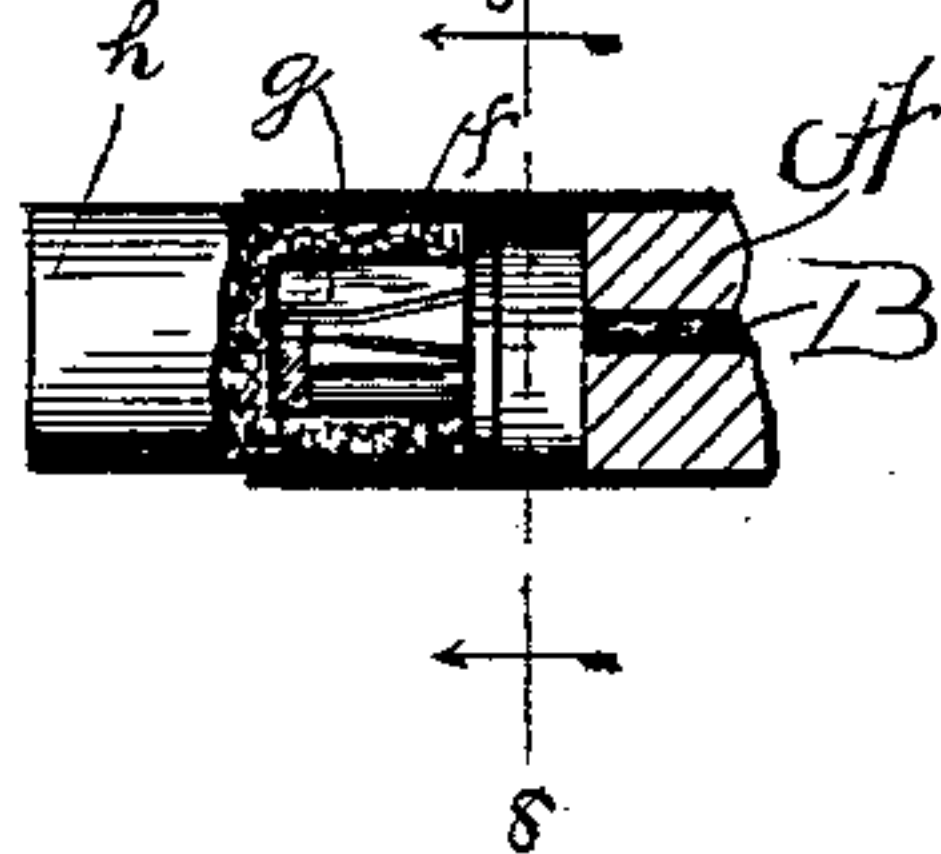


Fig. 7.



Witnesses
J. B. McIn.
Harry White

by

Inventors
George K. Cummings
Frederick W. Musson
by A. Stout Atty

UNITED STATES PATENT OFFICE.

GEORGE K. CUMMINGS AND FREDERICK W. MUSSON, OF CHICAGO, ILLINOIS.

PENCIL.

SPECIFICATION forming part of Letters Patent No. 572,105, dated December 1, 1896.

Application filed March 10, 1896. Serial No. 582,609. (No model.)

To all whom it may concern:

Be it known that we, GEORGE K. CUMMINGS and FREDERICK W. MUSSON, citizens of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Pencils, of which the following is a clear and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to that class of pencils in which the "lead" is adjustable in the holder; and it consists principally in mechanism for bringing about this adjustability, which will be fully described hereinafter.

In the drawings, Figure 1 is an elevation of a pencil embodying our invention. Figs. 2 and 3 are longitudinal sections. Fig. 4 is a section on line 4 4, Fig. 3. Fig. 5 is a detail of the lead and its clutch. Fig. 6 is a view similar to Fig. 4, but of a modification of our device; and Fig. 7 is a broken longitudinal section of the rubber tip. Fig. 8 is a cross-section on line 8 8, Fig. 7; and Fig. 9 is a longitudinal central section of the tip.

A is that portion of a pencil which is usually of wood. The lead B is designed to fit snugly in the wood, but to slide freely therein, and near one end it passes through a clutch that is located in a chamber *a* of the wood portion or handle A. This clutch consists of a lever *b*, which is enlarged at one end, in which is an opening through which the lead passes, and a spring *c*, which is interposed between the enlarged portion of the lever and the wall of the chamber nearest the point of the pencil. The handle of lever *b* projects through a slot *d*, the rear edge of which is slightly in advance of the rear wall of chamber *a*, and hence the normal pressure of the spring will cause the lever to bind or clamp on the lead, as shown in Fig. 5, and prevent the lead from being forced back into the wood when in use, and then when it is desired to force the lead out as it is worn off a slight pressure on the handle will cause the inner end thereof to force the lead outward, as in Fig. 3, and the lever will be returned to the position shown in Fig. 2 by the spring when pressure of the finger is removed. When it is desirable to have the lead pass freely through the clutch, a slight backward pressure on the outer end

of the lever will straighten it, so that it will not bind, and of course then the lead may be moved in either direction or drawn out or inserted.

The lead may be of any desired shape in cross-section and the opening in the lever of shape to correspond.

As only the lead in our improved pencil is generally to be sharpened, we propose in some instances to furnish each pencil with its own sharpener, as shown in Figs. 7, 8, and 9. This consists of a slight annulus having converging blades *g*. This is embedded in a rubber tip *h*, such as some pencils have, or embedded in the pencil-casing when pencil is made without rubber eraser.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a pencil a clutch adapted to move bodily in the handle and carry the lead with it in one direction and to move freely along the lead in the other direction, in combination with a retracting-spring, substantially as described.

2. In a pencil the combination of a handle and a lead; and a clutch whose clutching action is governed by its relative angle to the lead; and which has a bodily movement longitudinal to the handle, with a retracting-spring.

3. In a pencil the combination of a handle, a lead and a non-elastic clutch that has a bodily movement longitudinal to the handle.

4. In a pencil the combination of a handle, a lead, a non-elastic clutch that has a bodily movement longitudinal to the handle with a retracting-spring through which the lead freely slides.

5. The combination in a pencil of a clutch-lever through which the lead freely slides and a spring through which the lead also freely slides with the handle or wood portion having a stop for confining the spring against the clutch-lever and another stop for causing the clutch-lever to bind on the lead under the pressure of the spring as set forth.

GEORGE K. CUMMINGS.

FREDERICK W. MUSSON.

Witnesses:

S. S. STOUT,

ED. E. SAMUEL.