(No Model.)

F. W. H. HAAS.

POINTING APPARATUS TO BE EMPLOYED IN PENCIL HOLDERS.

No. 419,768. Patented Jan. 21, 1890.

Fig. 1.

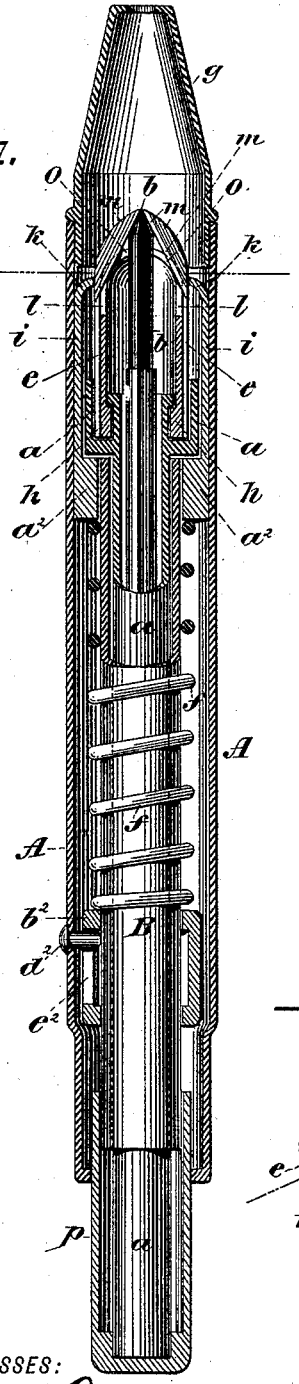


Fig. 2.

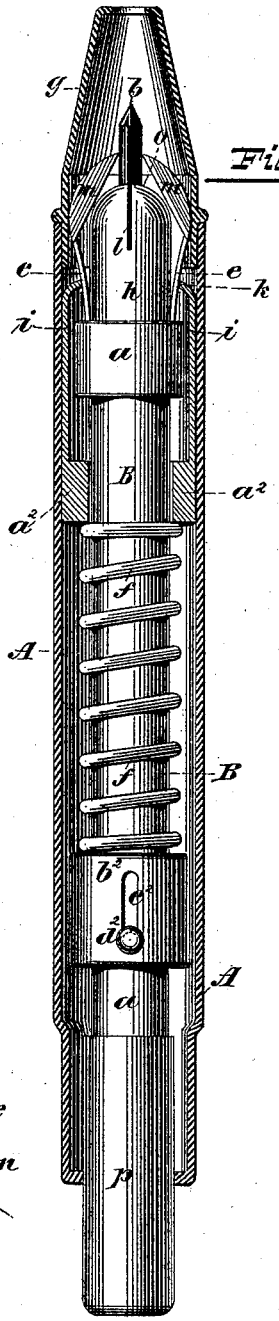
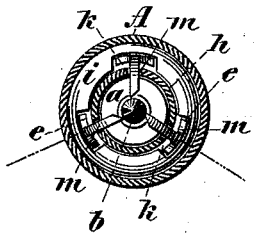


Fig. 3.



WITNESSES:

Gustave Dieterich.

F. F. Bourne.

INVENTOR

Friedrich W. H. Haas

BY

Briesen, Steele & Simmonds

ATTORNEYS

UNITED STATES PATENT OFFICE.

FRIEDRICH WILHELM HERRMANN HAAS, OF STEIN, NEAR NUREMBERG, BAVARIA, GERMANY.

POINTING APPARATUS TO BE EMPLOYED IN PENCIL-HOLDERS.

SPECIFICATION forming part of Letters Patent No. 419,768, dated January 21, 1890.

Application filed July 18, 1889. Serial No. 317,958. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH WILHELM HERRMANN HAAS, a resident of Stein, near Nuremberg, Bavaria, Germany, have invented an Improved Pointing Apparatus to be Employed in Pencil-Holders, of which the following is a specification.

The object of this invention is to provide a pencil-holder with means for sharpening a lead while in the holder.

The invention consists in the novel details of improvement and the combinations of parts, that will be more fully hereinafter set forth, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a longitudinal sectional view of a pencil-holder containing my improvements. Fig. 2 is a similar view showing the lead and sharpener pushed forward, and Fig. 3 is a transverse section taken through the sharpening devices.

In the accompanying drawings, the letter A represents the outer case or shell of a pencil-holder, and B represents an inner tube that is guided to have longitudinal movement in the case A.

f is a spring coiled around the tube B, and pressing at one end against a partition a^2 within the case A and at its opposite end against a shoulder or sleeve b^2 on the tube B. The tube B is permitted limited longitudinal movement by means of a pin d^2, carried by the case A and passing into a slot e^2 in the sleeve b^2. The spring *f* tends to hold the tube B in the position shown in Fig. 1, while permitting it to be pushed in the position shown in Fig. 2.

Within the tube B is a tube *a*, that is adapted to turn in the same, and within the tube *a* is placed the lead *b*, as usual. The lead *b* may be moved longitudinally in the tube *a* by turning the tube *a*. The devices for so moving the lead, being well known, need not be further detailed here. The tube *a* carries a finger-piece *p*.

The above parts are not of my invention, and are here described to show one means whereby my invention, hereinafter set forth, may be carried out, it being understood that my invention may be used with other desired forms of pencil-holders.

I will now describe my sharpening device as shown in the drawings.

Upon the outer end of the tube *a*—that is to say, upon the end near the writing end of the pencil-holder—is journaled a shell *h*, that projects outward from the end of the tube *a*. The outer end of the shell *h* is apertured at *o*, to permit the passage of the lead *b*. Said shell *h* is also provided with a number of slits *l* at its outer end, through which slits knives or cutting-blades *m* may pass. (See Fig. 1.) The knives or blades *m* are on opposite sides of the shell *h*, and are carried by suitable spring-supports *e*, that are shown situated on the outer side of the shell *h;* or the knives may be carried by other desired means. The cutting-edges of the knives or blades *m* are preferably sloped, so that when together in the normal position they circumscribe a cone having its apex in line with the lead *b*. (See Fig. 1.)

In order to keep the knives *m* closed to point or sharpen the lead *b* and to permit them to open when the lead is to be pushed forward for use, I place around the knives *m* and shell *h* another shell or tube *i*, that is shown connected with the partition a^2; but the tube *i* may be otherwise suitably carried by the outer case A. The shell or tube *i* is open at its outer end, and at that part it is provided with slits *k*, that receive the knives *m* and permit them to move laterally, while keeping the knives from turning.

To point or sharpen the lead *b*, the same is pushed up against the knives, as in Fig. 1, and then turned while in contact with the knives, which is done by turning the tube *a*. As the knives *m* are held from turning by the shell or tube *i*, the lead will be sharpened when turned in contact with them.

In order to pass the lead *b* from the head-shell *g*, for the purpose of using the pencil, the tubes B *a*, shell *h*, and knives *m* are pressed forward by pushing on the finger-piece *p*, whereby the knives *m* pass out of the shell *i* and spring outward or laterally out of contact with the lead *b*. The lead *b* may now

be pushed farther forward by turning the tube *a*. To return the lead into the holder it is first drawn inward by turning the tube *a* in the reverse direction, and then the tube B is allowed to move inward, so as to draw the knives *m* into the slits *k* in the shell *i*. A suitable well-known stop may be used, if desired, to hold the tubes B *a* in the outward position.

Having now described my invention, what I claim is—

1. In a pencil-holder, the laterally-movable knives *m*, adapted to receive a lead *b* between them, combined with means, substantially as described, for moving said knives laterally and out of contact with the lead, substantially as described.

2. In a pencil-holder, the tube *a* for a lead *b*, and the laterally-movable knives *m*, the cutting-edges of said knives circumscribing a cone, combined with the shell *i*, surrounding said knives, and with means, substantially as described, for actuating the tube *a* to move the lead, substantially as specified.

3. In a pencil-holder, the tube *a* and shell *h*, carried by the same, combined with the knives *m* and with means, substantially as described, for actuating the tube *a* to move a lead, and for moving the knives *m* out of contact with the lead, substantially as specified.

4. In a pencil-holder, the tube *a*, shell *h*, and knives *m*, combined with the shell *i*, having slits *k* for the knives *m*, and with means, substantially as described, for moving the tube *a* to actuate a lead *b*, and for moving the knives *m* out of contact with the lead, substantially as specified.

The foregoing specification of my invention signed by me this 14th day of June, 1889.

FRIEDRICH WILHELM HERRMANN HAAS.

Witnesses:

ANDR. STICH,

AUG. BECK.