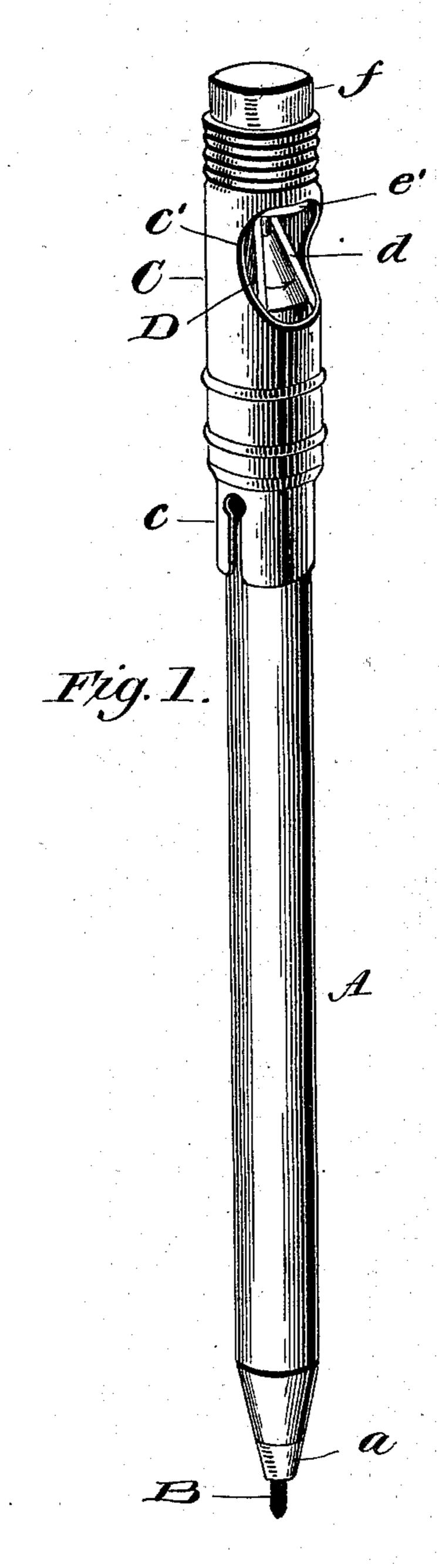
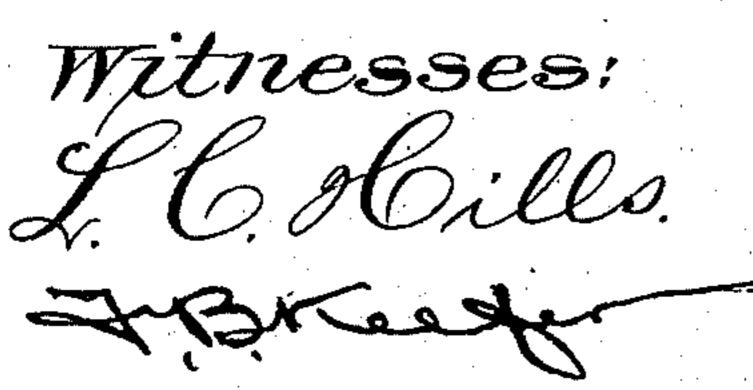
(No Model.)

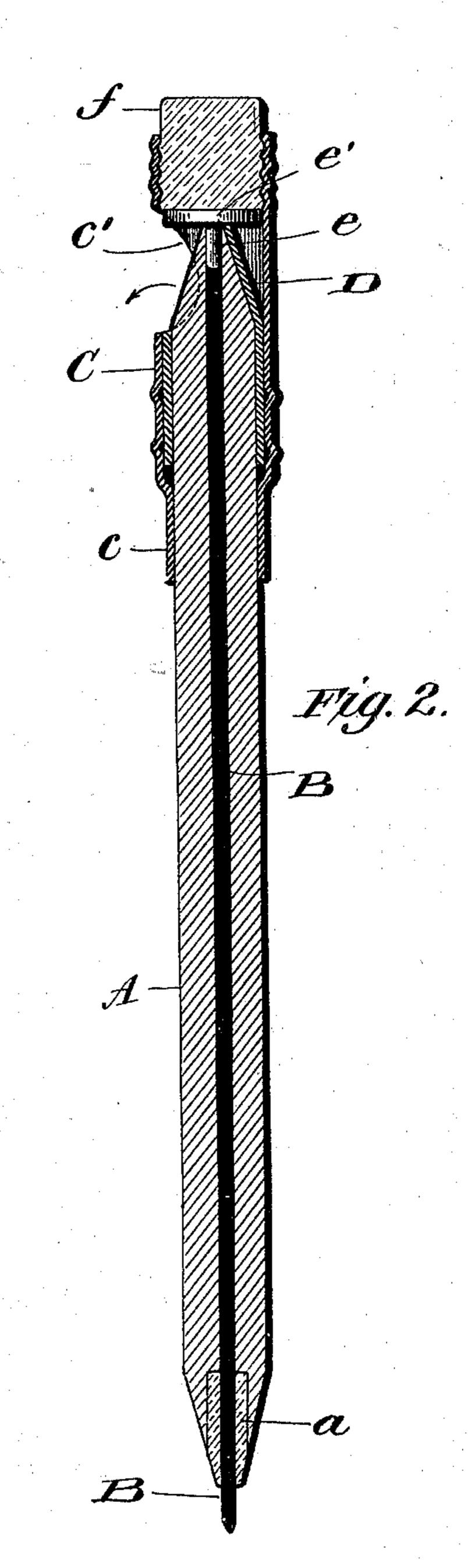
## A. KAISER. PENCIL SHARPENER.

No. 562,303.

Patented June 16, 1896.







Inventor:
August Kaiser,
by haculus Saieur
his Atty.

## United States Patent Office.

AUGUST KAISER, OF NEW YORK, N. Y., ASSIGNOR TO THE EAGLE PENCIL COMPANY, OF SAME PLACE.

## PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 562,303, dated June 16, 1896.

Application filed April 11, 1896. Serial No. 587,149. (No model.)

To all whom it may concern:

Be it known that I, AUGUST KAISER, of the city, county, and State of New York, have invented certain new and useful Improvements in Pencil-Sharpeners, of which the following

is a specification.

Under my invention the operation of sharpening the pencil involves the cutting away of the sheath at its rear and not at its point. 10 The lead is movable in the sheath, and as the sharpener cuts away the rear end of the wood it causes the lead-point to protrude from the front end of the pencil a distance corresponding to the length of the cut-away part of the 15 sheath. The advantages of this arrangement are that the pointed front end of the sheath remains the same and is never cut away or renewed and that the cutting edges of the sharpener are never by any possibility brought 20 into contact with the lead, thus avoiding both the dulling of the instrument occasioned by cutting the lead, as well as the breaking of the lead itself, which often results from its contact with the cutting-blade of the instru-25 ment.

In the accompanying drawings, to which I shall now refer for a more complete understanding of my invention, Figure 1 is a perspective view of the pencil and pencil-sharp-spective view. Fig. 2 is a longitudinal axial

section of the same.

The sheath A of the pencil is made of wood or other suitable material that can be readily cut with a knife. It contains the lead stick 35 or core B, which is longitudinally movable therein, fitting the hole in the stick snugly, so that it cannot move very readily therein. To increase the friction between the lead and its sheath, the latter is provided with a frictional clamping-sleeve a of rubber, which clasps the portion of the lead passing through it.

The sharpener, mounted on the rear end of the pencil, comprises a sleeve C, having a split front end, forming spring clamping-jaws c, which embrace the pencil closely and prevent the instrument from being too readily moved lengthwise upon the pencil. The friction at this point as well as at the front end of the

pencil is intended to prevent the lead from 50 being pushed back into the sheath by the pressure which comes on its point when in use. The sleeve contains a pencil cutter or sharpener proper, D, of any approved construction, (shown partially through the opening  $c^\prime$  55 in Fig. 1,) cut in the sleeve to afford an exit for the shaving cut from the rear end of the pencil-sheath by the blade d of the sharpener, when the sleeve C is revolved and at the same time pressed forward upon the pencil-sheath. 60 A rigid central stem e, suitably held in place in the sleeve, projects axially into the taper rear end of the sharpener in position to enter the lead-hole in the sheath and bear upon the rear end of the lead therein, as indicated 65 plainly in Fig. 2. Thus as the rear end of the pencil is cut away the stem or pusher e shoves the lead forward and causes its front end to project from the pencil point or tip. The cutter, it will be noted, is out of contact 70 at all times with the lead. The pusher e in the arrangement shown in the drawings is fast to a disk or button e, secured in the rear end of the sheath, which also contains an erasive rubber head or stick f.

Having described my invention and the best way now known to me of carrying the same into effect, what I claim herein as new and of

my own invention is-

1. A pencil-sharpener in which the cutting- 80 blade and conical or tapering receiving-passage for the end of the pencil, are combined with a pusher-stem projecting from the smaller end of the sharpener axially into the interior of the bore or passage in position to 85 enter the central lead-receiving hole or passage in the pencil substantially as and for the purposes hereinbefore set forth.

2. A pencil-sheath and longitudinally-movable lead therein, in combination with a sharp-90 ener mounted and frictionally held upon the rear end of the sheath, and capable of both rotary and longitudinal movement thereon, and a pusher carried by said sharpener, and adapted to enter the central lead-passage in 95 the sheath, and to bear upon the end of the lead therein, substantially as and for the pur-

poses hereinbefore set forth.

3. In combination, a pencil-sheath, a lead longitudinally movable therein; a sharpener or cutter mounted upon the rear end of the sheath, and capable of both rotary and lon-5 gitudinal movement thereon; and means car-ried by the sharpener or cutter whereby the lead in the sheath is advanced in proportion as the sheath at its rear is cut away, substan-

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tially as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 10th day of April, 1896.

AUGUST KAISER.

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Witnesses:

SAMUEL KRAUS, P. H. BUCKMASTER.