

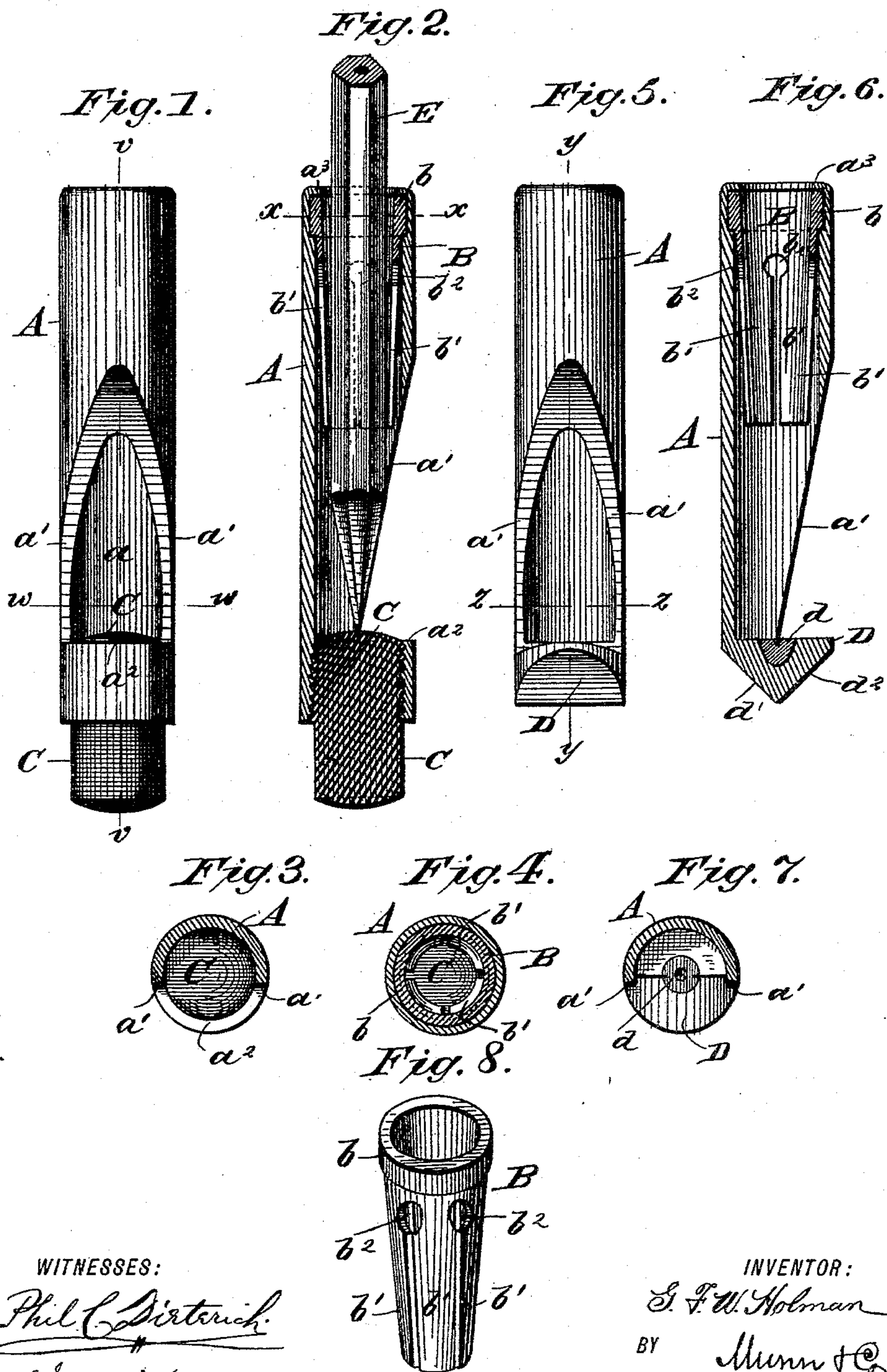
(No Model.)

G. F. W. HOLMAN.

PENCIL SHARPENING GAGE AND POINT PROTECTOR.

No. 414,414.

Patented Nov. 5, 1889.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE F. W. HOLMAN, OF THE UNITED STATES NAVY.

## PENCIL-SHARPENING GAGE AND POINT-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 414,414, dated November 5, 1889.

Application filed November 5, 1888. Serial No. 289,998. (No model.)

*To all whom it may concern:*

Be it known that I, Lieutenant GEORGE F. W. HOLMAN, of the United States Navy, residing at Torpedo Station, Newport, in the county of Newport and State of Rhode Island, have invented a new and Improved Pencil-Sharpening Gage and Point-Protector, of which the following is a full, clear, and exact description.

My invention relates to a device for facilitating the easy and true sharpening of lead or other pencils or crayons by the aid of an ordinary knife and without soiling the hands or breaking the pencil-point. The device is also adapted for use as a protector or guard for a pencil-point.

The invention consists in certain novel features of construction and combinations of parts of the gage and protector, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front view of my improved pencil-sharpening gage and point-protector provided with a piece of erasing-rubber, which forms a base or resistance piece to the pencil-point while the pencil is being sharpened. Fig. 2 is a central longitudinal sectional elevation of the device, taken on the line  $v v$  in Fig. 1, with a pencil or a part of one held in it in position to be sharpened, or so as to protect or guard the pencil-point. Fig. 3 is a cross-section taken on the line  $w w$  in Fig. 1. Fig. 4 is a cross-section taken on the line  $x x$  in Fig. 2. Fig. 5 is a front view of a modified form of the device, or one wherein a base-piece formed with the outer case or shell of the device constitutes the resistance-piece to the pencil-point. Fig. 6 is a longitudinal section taken on the line  $y y$  in Fig. 5. Fig. 7 is a cross-section taken on the line  $z z$ , Fig. 5; and Fig. 8 is a perspective view of the pencil-clamp, which is fitted to the upper or outer end of the case or shell of the device.

I will first describe one preferred form of the pencil-sharpening gage and point-protector, with more special reference to Figs. 1, 2, 3, 4, and 8 of the drawings, as follows: The device, as here shown, consists of three parts—

fitted for axial rotation at one end of the case, and a piece of ordinary pencil-rubber or ink-eraser C, fitted into the opposite end of the case. The case A, which is preferably round in cross-section, may be made of metal, hard rubber, glass, hard wood, or any other suitable material, and is cut away diagonally at one side to provide an opening  $a$ , and forming two sloping edges or walls  $a' a'$  and a lower edge  $a^2$ , which ranges about at a right angle with the outer face of the case. The edges or walls  $a' a'$  slope inward about in the same plane to a point where they meet the edge or shoulder  $a^2$ , and a line drawn across the case at this point would bisect the axial center of the case. The pencil-clamp B in its preferred form is made of elastic or spring metal, and consists of a collar  $b$ , to which are attached a series of pendent fingers or plates  $b'$ , four fingers being a preferred number. This clamp may be made of a piece of metal tube turned off at the outside to produce the shouldered collar  $b$  and then slit lengthwise to produce the fingers, which preferably are reduced in thickness and width toward their extremities. The bases of the slits between the fingers may be enlarged at  $b^2$  by boring or otherwise, so as to prevent further splitting of the clamp and promote its durable elasticity. In fitting the clamp into the case A the outer part of the case will be counterbored to receive and stop the shouldered collar  $b$  of the clamp, and when the case is made of metal a projecting edge of it will be spun or turned inward over the clamp-collar at  $a^3$  in a manner which will leave the clamp free to turn independently in the case and prevent its endwise movement therein. I am not limited to making the pencil-clamp in precisely the manner above described or to fitting it into the case, as explained, provided the clamp may securely hold and also truly center the pencil passed into it through the open back or outer end of the case and may turn with the clamped pencil in the case and with little or no endwise motion. The elastic rubber or eraser C is preferably turned into the internally-screw-threaded lower or outer end of the case A and projects beyond the case sufficiently to make an efficient eraser to cancel pencil or ink lines or marks. The inner end of the rubber C is preferably



convexed to allow the sharpened pencil-point to have a little lateral play on it during the sharpening of the pencil.

The modified form of the device shown in Figs. 5, 6, and 7 of the drawings is like the other device above described, except that the rubber base or resistance piece C is dispensed with and is substituted by a solid end portion D, preferably of the same material of which the case-body is formed, and provided, it may be, with a soft-metal or rubber plug  $d$ , on the center of which the clamped pencil will rest while being sharpened. The top of that part of the end D which projects beyond the center of the device is laterally convexed to give play to the pencil-point and prevent breaking of the exposed fragile lead of the pencil by the pressure of the sharpening knife or instrument. The rear outer half or portion of the end piece D is beveled at  $d'$  to afford a convenient rest on the thumb of the hand holding the pencil-sharpening knife or cutter, and the opposite portion  $d^2$  is cut away in like manner to give an appropriate end finish to the case.

The operation of the device is very simple and effective, as it is only necessary to pass the blunt pencil E into the clamp B until its point touches the resistance-piece C or D, and then by passing the blade of a pocket or other knife or cutter along the faces  $a' a'$  at the opening  $a$ , these faces act as a gage to assure a uniform cutting away of the wood of the pencil, and as each cut is made or as each face or part of the blunted pencil-point is cut away to the plane of these gage-faces  $a' a'$  the pencil will be turned with the clamp B in the case to present another face to the action of the knife until all sides of the pencil-point are truly and uniformly cut away to produce a perfectly-sharpened pencil. The pencil will have a little lateral play in the case A while the knife is cutting it, due to

the elasticity of the pencil-clamp; but the convexity of the resistance-piece, against which the pencil-point rests, allows the fragile point sufficient freedom of lateral movement to prevent breaking of it under the action of the knife or cutter.

With this device a pencil may be truly or evenly sharpened by any one so as to have a good point and without soiling the hands, and the device may be fitted over a sharpened pencil to allow both to be conveniently carried in the pocket without danger of breaking the lead of the pencil; hence the sharpening-gage also forms an effective pencil-point protector or guard, as will readily be understood.

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

1. A pencil-sharpening gage consisting of a tubular case adapted to receive a pencil and cut away diagonally at one side to provide gaging-faces for a knife or cutter, and an axially-rotatable pencil-clamp fitted into the case, substantially as herein set forth.

2. A pencil-sharpening gage consisting of a tubular case cut away at one side to provide gaging-faces for a knife or cutter, a pencil-clamp fitted in the case, and a convex resistance-piece for the pencil-point, substantially as herein set forth.

3. The combination, in a pencil-sharpening gage and point-protector, of a case A, cut away at  $a$  to provide knife-gaging faces  $a' a'$ , a rotatable pencil-clamp B, fitted in the case, and a convexed rubber C, fitted at the outer end of the case and forming a resistance-piece to the pencil-point, substantially as herein set forth.

GEORGE F. W. HOLMAN.

Witnesses:

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C. SEDGWICK.