

Jan. 6, 1953

E. BLANCO ET AL

2,624,316

CRAYON SHARPENER

Filed June 1, 1950

Fig. 1.

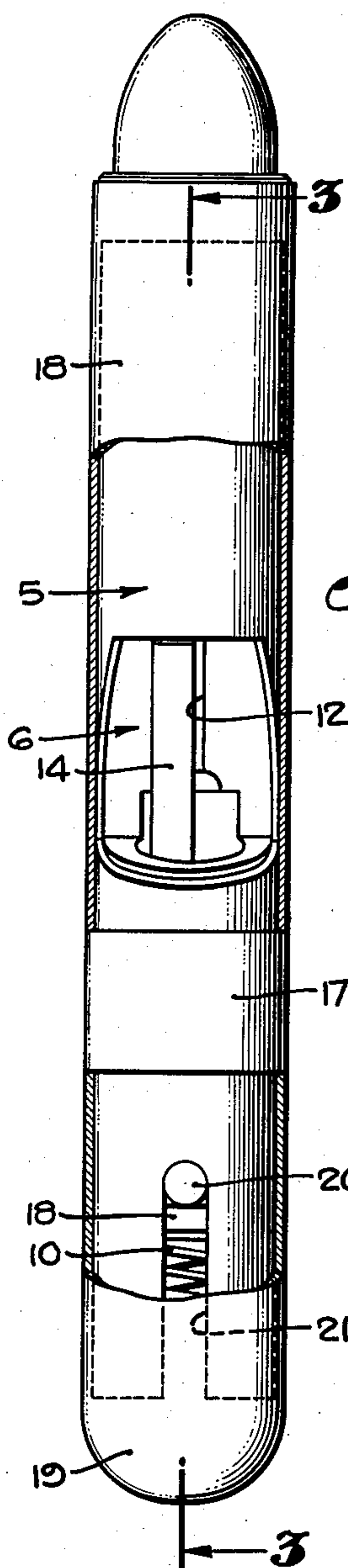
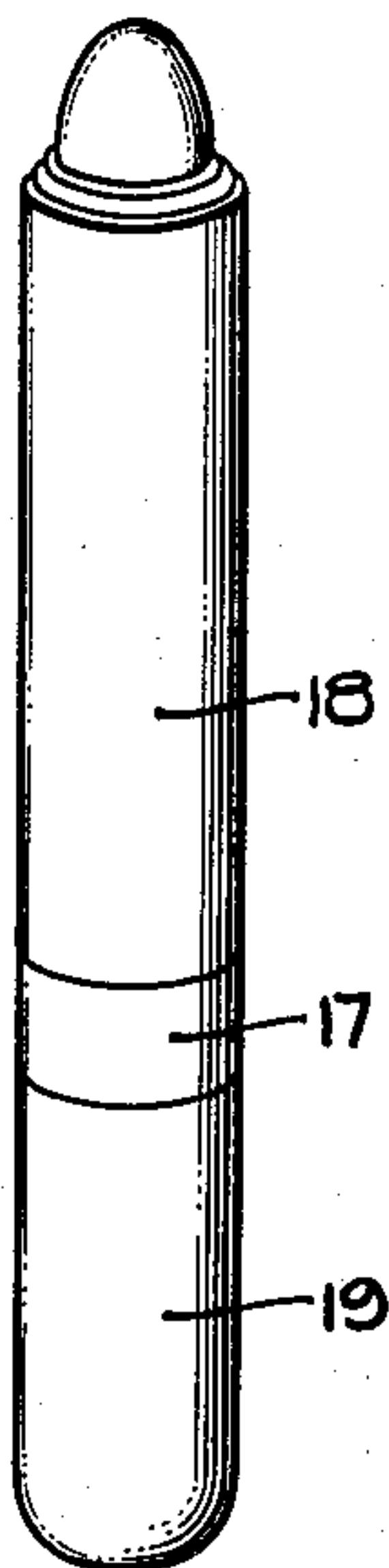


Fig. 2.

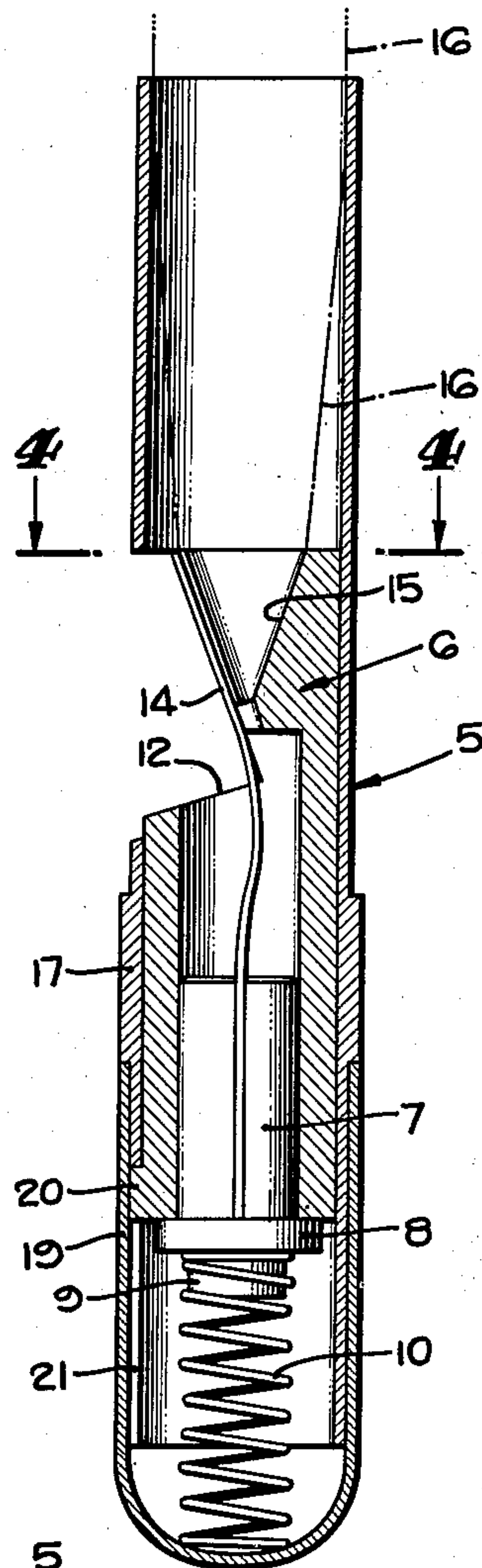


Fig. 3.

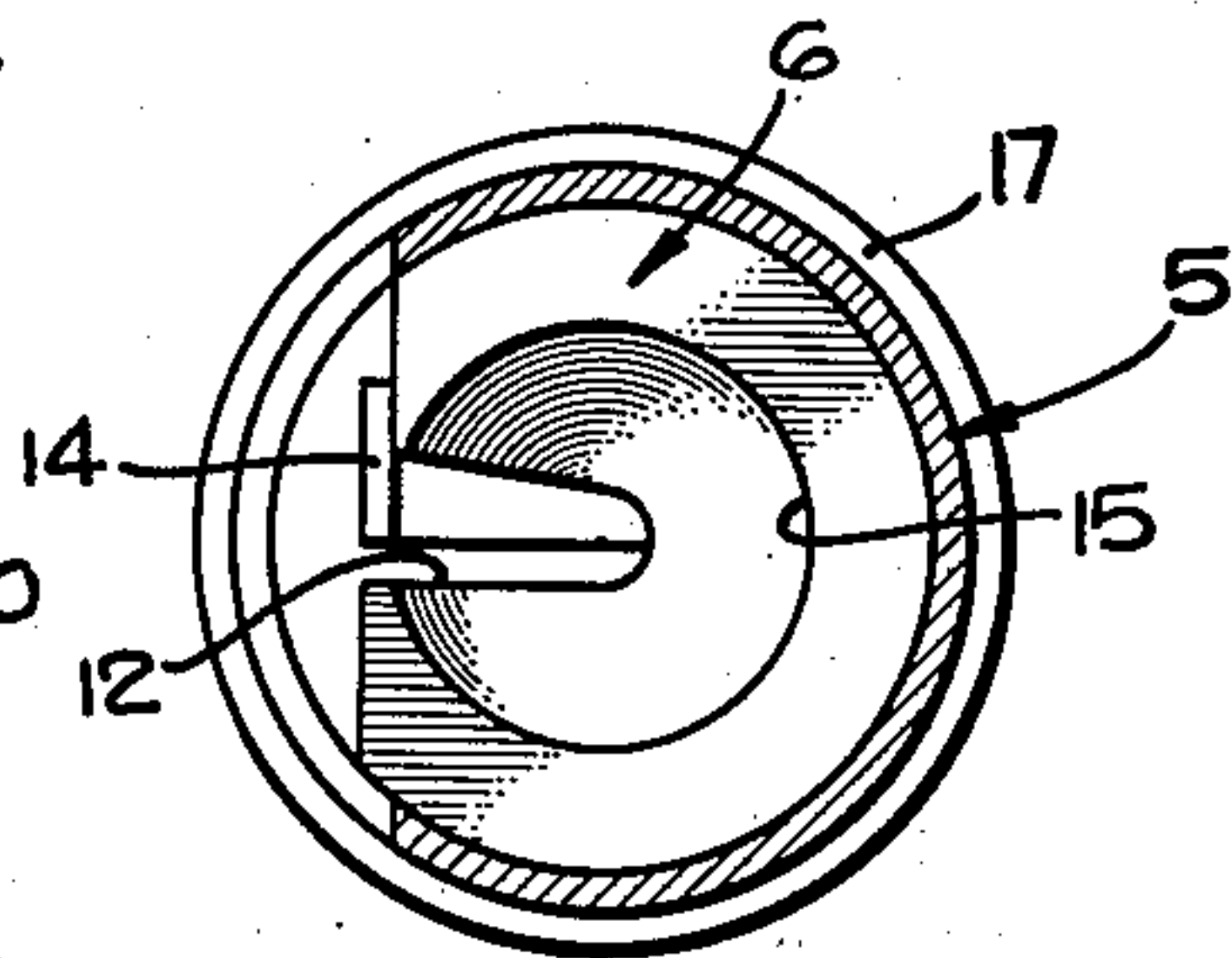


Fig. 4.

ELIAS BLANCO
ZACHARY MELNIKOFF
INVENTORS

BY *Carl R. Goshaw*
ATTORNEY

UNITED STATES PATENT OFFICE

2,624,316

CRAYON SHARPENER

Elias Blanco and Zachary Melnikoff,
Los Angeles, Calif.

Application June 1, 1950, Serial No. 165,465

8 Claims. (Cl. 120—93)

1

This invention relates to sharpening devices, and particularly to a crayon sharpener for any type of pencil having a soft lead of the crayon type.

Fixed, rigid blade pencil sharpeners, which cut the lead, are well-known, and flexible types of multiple blade crayon sharpeners are also known. The sharpening action of these multiple blade sharpeners is a shearing action, which has been particularly satisfactory for crayons. It has been found, however, that the blades should also be flexible to obtain a sharp point on the crayons and a smooth, conical tip. Multiple type blades have openings between the blades and shavings from the pencil are extruded through the openings. These shavings adhere to one another and it becomes difficult to remove them to clean the sharpener. Many times they mash down into a layer over the blades.

The present invention is directed to a single blade sharpener which provides the desired shearing action to obtain a smooth, conical tip. The blade is also flexible to provide a sharp point on the crayon. Since only a single shaving is obtained, the shaving may be quickly removed by the finger or by blowing air against the shaving, thus always maintaining a clean sharpener.

Another feature of the sharpener is the provision within the sharpener itself of a predetermined tension so that there will always be substantially the same amount of pressure between the crayon and the blade.

The principal object of the invention, therefore, is to facilitate the sharpening of crayons or pencils with soft leads.

Another object of the invention is to provide an improved pencil sharpener for crayons and pencils having soft leads.

A further object of the invention is to provide a single-bladed crayon sharpener to provide a smooth, sharp point to crayons, regardless of variations in pressure exerted on the blade.

Although the novel features which are believed to be characteristic of this invention will be pointed out with particularity in the appended claims, the manner of its organization and the mode of its operation will be better understood by referring to the following description, read in conjunction with the accompanying drawings, forming a part hereof, in which:

Fig. 1 is a perspective view of the sharpener with the cover cap in place.

Fig. 2 is a similar view of the sharpener of Fig. 1, partly in cross-section.

Fig. 3 is a cross-sectional view of the sharpener taken along the line 3—3 of Fig. 2, and

2

Fig. 4 is a cross-sectional view taken along the line 4—4 of Fig. 3.

Referring now to the drawing, in which the same numerals identify like elements, the sharpener is composed of a notched body cylinder 5, which may be of plastic or similar material, and a notched metallic sharpener element 6, longitudinally slidable within the cylinder 5, and which is drilled at one end for the insertion of a cylindrical blade holder 7 with a collar 8 having a stud extension 9, over which a spring 10 is placed. Although the entire shell 5 and holder 6 are shown cylindrical, these elements may have other shapes, as long as the internal surface of the insertion end of the shell is cylindrical to accommodate the pencil to be sharpened. The other end of the sharpener element 6 has a conical portion as shown at 15 and has a rectangular slot or notch 12 therein, over one edge of which is a flexible spring steel blade 14. The notch may be wider than shown, or may be tapered, if desired. The blade 14 extends over the edge of the slot 12, lies flat on the edge of the slot, and extends in a curve to the blade holder 7. The blade is attached in a groove in holder 7. Since the blade 14 is fixed only in the blade holder 7 and is of flexible material, the tip of the blade is flexible and may be slightly removed from the edge of the slot 12 under pressure of the crayon into the conical opening 15 under the blade.

The other end of the body cylinder 5 forms a support for the crayon or pencil indicated by the broken lines 16. It will be noted that the central portion 17 of the cylinder 5 is of larger diameter than the end portions, which provides stops for the upper cover cap 18 and the lower spring holding cap 19.

Mounted between the internal end surface of the cap 19 and the collar 8, is the spring 10, which controls the pressure of the crayon against the blade 14. That is, since the sharpener 6 is slidable longitudinally within the cylinder 5 against the compression of the spring 10, the depth of cut taken by the blade 14 is controlled in the event that excess pressure is applied to the crayon 16. The sharpener element 6 is held fixed with respect to rotational movement within the body cylinder 5 by a pin 20, slidable in the slot 21 of the cylinder 5. The blade 14 is of spring steel and has a constant rectangular cross-sectional area over its cutting length, the actual cutting being done by one of the right angle corners of the spring. (See Fig. 4.) This cutting edge lies in the plane of the axis of the conical opening 15. Thus, shearing action is obtained which provides the tip of the crayon with a smooth,

3

uniform, conical surface, the flexibility of the blade permitting a sharp point to be obtained.

It has been found that the construction just described provides a sharpener which will, under considerable variation of manipulation, provide a smooth, tapered tip on a crayon or lead. This is accomplished without clogging the sharpener, since disposal of the single shaving may be easily made.

We claim:

1. A sharpener comprising a shell member having an internal cylindrical portion, an internal sharpening element slidable in said shell, said element having one end with a conical opening, the conical opening having a side opening therein, a blade holder in the other end of said sharpener element, and a flexible blade having one end portion attached to and extending from said holder and having the other end portion extending over the edge of said side opening of said conical opening and lying in a plane through the axis of said sharpener.

2. A sharpener in accordance with claim 1, in which the cutting edge of said blade lies in the plane of the axis of the conical opening.

3. A soft lead and crayon sharpener comprising a shell having a notched opening at the side thereof, a cover for each end of said shell, a sharpener element within said shell and movable longitudinally therein, said sharpener element having a notch therein corresponding to the notched opening in said shell and having one end with a conical opening therein, said conical opening having a side opening to said notch, a rectangular blade having one end portion bearing against the edge of said notch and overhanging said edge, and a blade holder in the other end of said sharpener element to which the other end portion of said blade is attached.

4. A soft lead and crayon sharpener in accord-

4

ance with claim 3, in which a spring is provided between the inside end of one of said cover elements and the end of said blade holder.

5. A soft lead and crayon sharpener in accordance with claim 3, in which said shell and element are cylindrical.

6. A soft lead and crayon sharpener in accordance with claim 3, in which the cutting edge of said blade lies in a plane passing through the axis of said conical opening.

7. A sharpener comprising means for supporting a lead in a sharpening position, a blade having its cutting edge lying substantially in the plane of the axis of said supporting means, said blade having a length at least twice as long as the portion of the lead which it contacts during sharpening, and means for mounting one end of said blade, the other end of said blade being free to move substantially transversely in the plane of its cutting edge under pressure of the lead being sharpened, the cutting edge of said blade lying substantially in the plane of the axis of the lead being sharpened.

8. A sharpener in accordance with claim 7, in which means are provided for applying longitudinal tension on said blade.

ELIAS BLANCO.

ZACHARY MELNIKOFF.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
895,188	Mueller	Aug. 4, 1908
2,188,130	Baier et al.	Jan. 23, 1940

FOREIGN PATENTS

Number	Country	Date
53,599	Germany	Sept. 15, 1890