March 21, 1950 R. E. RUTLEDGE, SR 2,501,098

SELF POINTING DIVIDERS

Filed Jan. 21, 1946

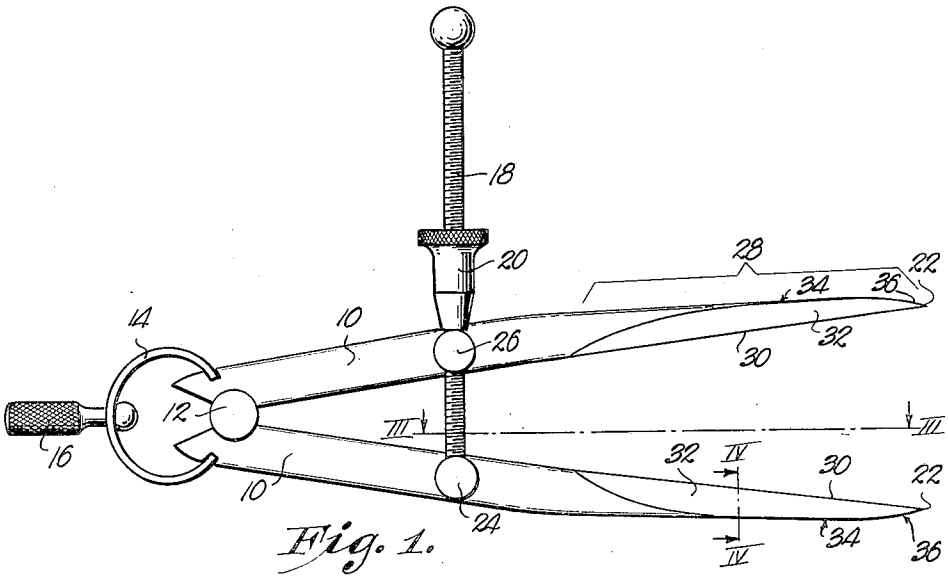


Fig. 1.

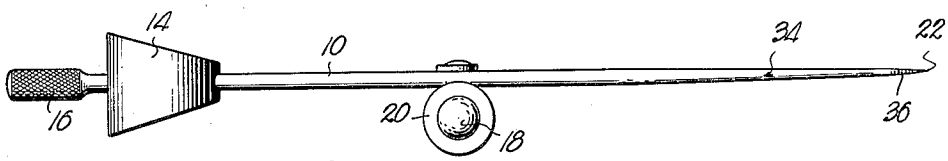


Fig. 2.

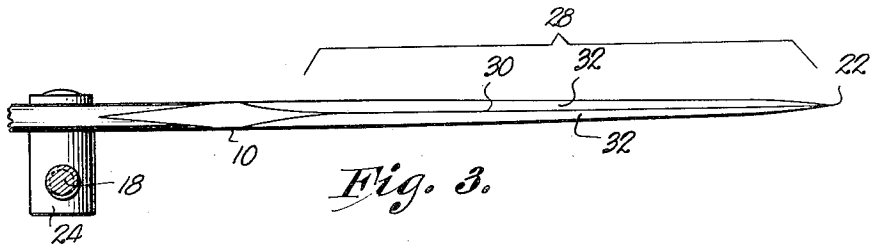


Fig. 3.

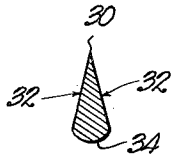


Fig. 4.

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SELF-POINTING DIVIDERS

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4 Claims. (Cl. 33—149)

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This invention relates to instruments employed by tool and die makers, and particularly to dividers having a pair of articulated legs, adjustably mounted within a supporting spring where the free ends thereof may be shifted toward and from each other during manipulation.

The primary object of this invention is the provision of dividers of the aforementioned character, the legs whereof are specially formed for purposes of allowing quick and effective grinding to establish a new and sharper point without the necessity of cutting away the material around the point.

A still further aim of this invention is to provide dividers with portions of the length of the legs thereof so initially contoured as to allow the user to sharpen the same by grinding but one face.

Other objects of the invention will appear during the course of the following specification, referring to the accompanying drawing, wherein:

Fig. 1 is a side elevational view of dividers made pursuant to the present invention.

Fig. 2 is an edge elevational view thereof.

Fig. 3 is a fragmentary longitudinal sectional view, on an enlarged scale, taken on line III—III of Fig. 1 and looking in the direction of the arrows; and

Fig. 4 is a cross sectional view on an enlarged scale, taken on line IV—IV of Fig. 1.

Heretofore dividers of the character illustrated, have had the legs thereof of tapering form but substantially uniform cross sectional contour throughout the length, which necessitated exceptional skill in re-pointing the free ends of the legs and that required grinding several faces before a proper point could be made.

The form of the invention chosen for illustration comprises a pair of legs 10, articulated through the medium of a headed pintle 12 and held in operative relation with respect to said pintle by a crescent-shaped spring 14, having an operating grip 16 thereon.

Spring 14 yieldably urges the upper ends of legs 10 toward each other and an adjusting screw 18, having a follower nut 20, serves as means for holding the pointed ends 22 of legs 10 at predetermined distances apart. Bearings 24 and 26 cooperate with set screw 18 in a manner well-known in the art, but as clearly shown in the drawing.

Bearing 24 is pivotally supported by one leg 10 and the screw 18 passes through a bore in bearing 26, which likewise is pivotally mounted on the other leg 10—all to insure freedom of action between the parts.

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Each leg 10 is specially contoured along a portion of its length at the free end, which is pointed as at 22. This portion 28 is substantially triangular in cross sectional contour to present a knife edge 30 along the inner face of portion 28.

The surfaces 32 progressively diverge as the base face 34 is approached. An inwardly and downwardly inclined face 36 merges with base face 34 and extends to knife edge 30 to create point 22. When this point is to be sharpened or re-made, it is this face 36 which the user grinds, and none other.

As the length of legs 10 diminishes through grinding, it is easy to keep the point 22 of both legs 10 in alignment, and the length of portions 28 is such that many grindings may occur without shortening the life of the dividers to an appreciable degree. Portion 28 diminishes in width between base face 34 and knife edge 30 as the free end thereof at point 22 is approached, and therefore, the length of face 36 on each leg 10 need not be long.

The angle of inclination may suit the whim of the user, but in any event, sharpening is facilitated and rendered easy by the special contouring of each leg, as just above set down.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. Dividers of the character described, comprising a pair of articulated legs, each having a portion of its length at the free end thereof substantially triangular in cross section to provide a knife edge along said portion, the said knife edge being along the inner side of the leg.

2. Dividers of the character described, comprising a pair of articulated legs, each having a portion of its length at the free end thereof substantially triangular in cross section to provide a knife edge along said portion, the said knife edge being along the inner side of the leg, said leg having the outer face thereof angled inwardly to meet the knife edge to form a point.

3. Dividers of the character described, comprising a pair of articulated legs, each having a portion of its length at the free end thereof substantially triangular in cross section to provide a straight, longitudinal knife edge; and an inwardly and downwardly inclined face merging with the base of the triangular portion and cooperating with the knife edge to present a sharp point at the free end of the leg.

4. Dividers of the character described comprising a pair of articulated legs, each having a portion of its length at the free end thereof substan-

tially triangular in cross section to provide a straight, longitudinal knife edge; and an inwardly and downwardly inclined face merging with the base of the triangular portion and cooperating with the knife edge to present a sharp point at the free end of the leg, said portion of the length of each leg being progressively decreasing in width as the point on the free end is approached.

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