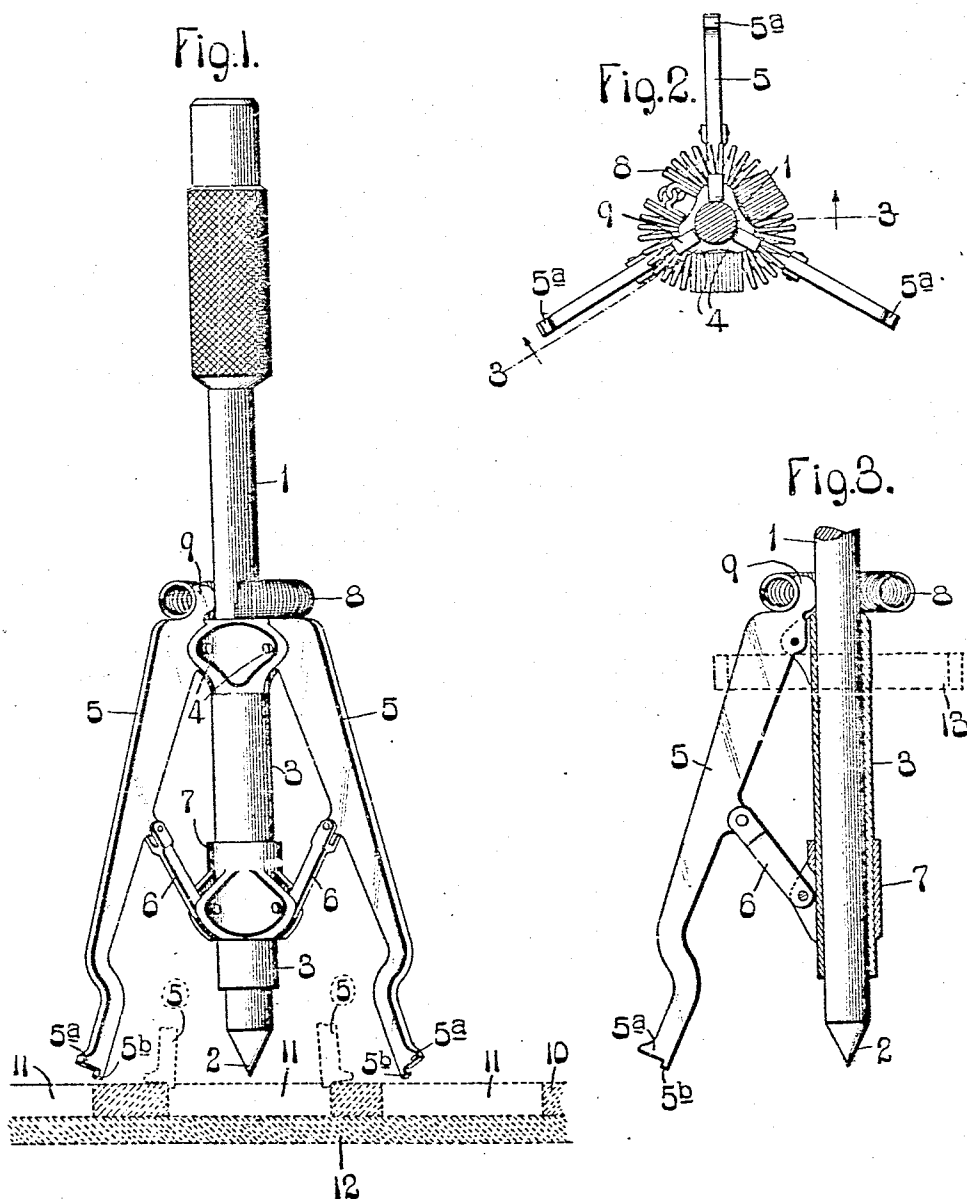


V. STROH.
CENTERING DEVICE.
APPLICATION FILED SEPT. 12, 1907.

949,856.

Patented Feb. 22, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

VICTOR STROH, OF POPLAR BLUFF, MISSOURI.

CENTERING DEVICE.

949,856.

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To all whom it may concern:

Be it known that I, VICTOR STROH, a citizen of the United States, residing at Poplar Bluff, Butler county, Missouri, have invented a certain new and useful Improvement in Centering Devices, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevational view of my improved centering device; Fig. 2 is a plan view, partly in section; and Fig. 3 is a vertical sectional view taken on the line 3—3 of Fig. 2.

This invention relates to new and useful improvements in centering devices, the main object being to provide a centering device which, when used in connection with a punch and applied to the wall of a circular aperture, will locate the punch in the center of the aperture.

Other objects and advantages as well as the novel details of construction will be hereinafter described and pointed out in the claims.

In the accompanying drawings, which illustrate the preferred form of my invention, 1 indicates a center punch having the usual pointed end 2.

3 is a sleeve slidably mounted on the punch 1, said sleeve being provided with bifurcated extensions 4 at its upper end. Legs 5 which project radially from the sleeve 3 are pivoted adjacent their upper ends to the extensions 4 and provided with feet 5^a at their lower ends.

6 indicates links, each of which has one of its ends pivoted to one of the legs 5 and its opposite end pivoted to a short sleeve 7, the latter being slidably mounted on the sleeve 3. A spiral spring 8, which is constantly under tension, incloses the upper ends 9 of legs 5, and when the device is not in use this spring causes said ends to frictionally engage the punch, as shown in Fig. 1, thereby maintaining the punch within the sleeve 3.

To illustrate the operation of my improved centering device, we will assume that the member indicated by the numeral 10 is a templet provided with a series of circular holes 11, and that it is desired to locate the centers of these holes in the member 12. When it is desired to find the center of a

circular aperture the legs 5 are manually moved toward the axis of the punch against the resistance offered by spring 8, their projecting heels 5^b being inserted into the aperture and thereafter allowed to move into engagement with the wall of said aperture, as shown by dotted lines in Fig. 1. When the parts are in this position the punch is located in the center of the aperture and is free to slide in the sleeve 3. To mark the center of the aperture it is only necessary to strike the upper end of the punch with a hammer or other suitable tool.

A centering device constructed as herein shown and described enables the center of an aperture to be found and marked very accurately and with little labor. When in use the device is firmly located in position, the heels 5^b being located within the aperture and forced against the walls thereof, while the feet 5^a rest on the outer face of the member to which the device is applied.

While the device herein shown comprises three legs for engaging the wall of an aperture my invention is not limited to this particular use, as the device may be used to locate the punch in the center of a solid circular object instead of a circular aperture. In this latter use, the legs will be forced inwardly against the periphery of the object by hand, or a ring 13 shown in dotted lines in Fig. 3 may be used.

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

1. In a centering device, a punch, a sleeve slidably mounted thereon, legs pivoted to said sleeve, means for actuating said legs, a member slidably mounted on said sleeve, and pivoted links connecting said member and sleeve; substantially as described.

2. In a centering device, a central member in the form of a punch, and centering means including spring-actuated legs co-operating with said punch, one end of said legs being adapted to engage the member to which the device is applied, the opposite ends thereof being in frictional engagement with the punch when the parts of the device are in inoperative position; substantially as described.

3. In a centering device, a central member in the form of a punch, spring-actuated centering means slidably mounted thereon, said means including legs pivoted to a sleeve, an actuating spring surrounding the upper

ends of said legs, and connections between said legs for causing them to move in unison; substantially as described.

4. In a centering device, a punch, a member slidingly mounted thereon, centering legs pivoted to said member, the upper ends of said legs extending above their pivotal points, means for yieldingly forcing the upper ends of said legs into engagement with the punch, and connections between said legs for causing them to move in unison; substantially as described.

5. In a centering device, a central member in the form of a punch, a member slidingly mounted thereon, centering legs pivoted to said member, and a spring for causing said legs to move in unison, the lower ends of said legs which rest on the article to which the device is applied being provided with notches which engage the article to firmly hold the legs and sliding member when the punch is used.

6. In a centering device, a central member in the form of a punch, a member slidingly mounted thereon, centering legs pivoted to said member, and a spring for causing said legs to move in unison, projections on the lower ends of the legs for firmly

holding the same in position on the article to which the device is applied, and a spring for actuating said legs; substantially as described.

7. In a device of the class described, the combination with a punch of a sleeve slidingly mounted on the punch, centering legs pivotally connected to the sleeve, the upper end of which legs extend above the sleeve and elastic means engaging the upper ends of the legs for normally forcing said upper legs into engagement with the punch.

8. In a device of the class described, the combination with a punch of a guide member, supporting legs carried by the guide member and means whereby the upper ends of the supporting legs are normally forced into frictional engagement with the punch for holding the same in the guide member when the device is not in use.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 7 day of September 1907.

VICTOR STROH.

Witnesses:

W. SPRIGG BROWN,
JOHN H. MAGUNS.