Oct. 4, 1955 A. JOHNSON 2,719,364

CENTER PUNCH

Filed May 13, 1952

Fig. 1

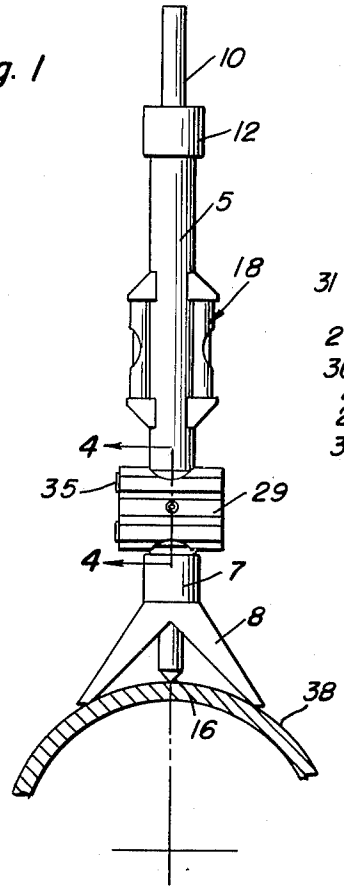


Fig. 4

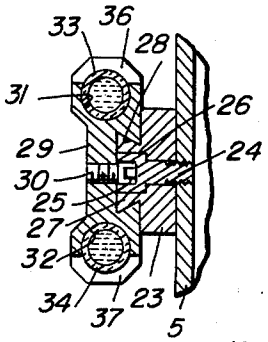


Fig. 2

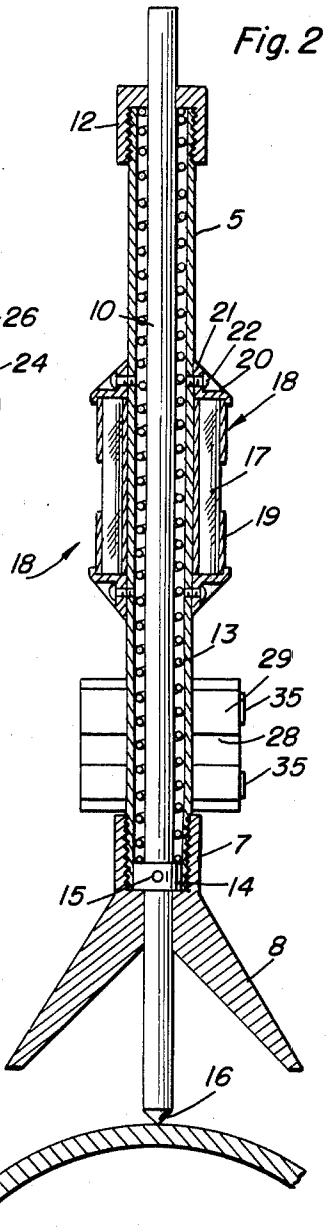


Fig. 3

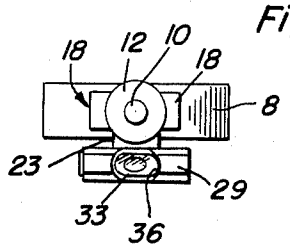
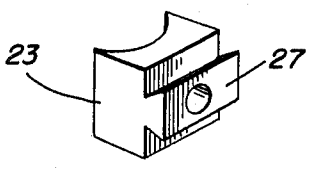


Fig. 5



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CENTER PUNCH

Aaron Johnson, Owensboro, Ky.

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1 Claim. (Cl. 33—189)

The present invention relates to new and useful improvements in center punches for use in locating and marking the center of pipes and other cylindrical work.

An important object of the invention is to provide vertical and horizontal spirit levels for the center punch whereby the tool may be used perpendicularly either on top of or under the work or horizontally at either the right or left side of the work.

Another object is to provide a tool of this character of simple and practical construction which is efficient and reliable in operation, relatively inexpensive to manufacture, and otherwise well adapted for the purpose for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view;

Figure 2 is an enlarged vertical sectional view;

Figure 3 is a top plan view;

Figure 4 is an enlarged fragmentary vertical sectional view taken on a line 4—4 of Figure 1; and

Figure 5 is a perspective view of the supporting block or bracket for the horizontal spirit levels.

Referring now to the drawing in detail, wherein, for the purpose of illustration, I have disclosed a preferred embodiment of my invention, the numeral **5** designates a barrel having a base **6** at its lower end and composed of an internally threaded nipple **7** in which the lower end of the barrel is threaded, and a pair of diverging legs **8** integrally formed with the nipple.

A vertical bore **9** is drilled in the base **6** at the crotch portion of the legs and in which the lower end of a punch **10** is slidable. The punch is centered in the barrel and is slidable at its upper end in a central opening **11** in a cap **12** threaded on the upper end of the barrel and above which the punch extends. A coil spring **13** is held compressed in the barrel by a collar **14** secured to the punch by a set screw **15** to project the pointed lower end **16** of the punch below the lower ends of legs **8**, the collar striking the base of nipple **7** to limit the downward movement of the punch.

A pair of spirit level tubes **17** are attached in a vertical position to diametrically opposite sides of the barrel **5** by holders designated generally at **18** and which are constructed of tubes **19** held in upper and lower caps **20** formed with flanges **21** which are attached to the sides of the barrel by screws **22**. Windows **19***a* are formed in the tubes **19**.

A semi-cylindrical block or bracket **23** is secured to barrel **5** below the vertical spirit levels **17** by a counter-

sunk screw **24** having a recess **25** in its head **26** and the block or bracket **23** is formed with a horizontal dovetail rib **27** adapted to enter a dovetail groove **28** in a substantially rectangular shaped spirit level tube holder **29** and which is secured in position on the block or bracket **23** by a screw **30** which enters the recess **25** of screw **24** to lock the holder **29** from sliding movement.

Upper and lower horizontal bores **31** and **32** are formed in holder **29** adjacent the upper and lower edges thereof with at least one end of each bore open and in which horizontal spirit level tubes **33** and **34** are held by plugs **35** threaded in one or both open ends of the bores. Windows **36** and **37** are formed in the upper and lower edges of the holder **29** for the spirit level tubes.

In the operation of the tool, the marking point **16** at the lower end of punch **10** is pressed against the surface of work **38** and barrel **5** is forced downwardly to rest legs **8** on the work. The tool may be placed either on top of or at the underside of the work and the uppermost horizontal spirit level **33** or **34** checked so that the barrel **5** will be held perpendicularly and the punch is then struck a hammer blow to mark the work.

The tool may also be placed against either side of the work and the uppermost spirit level tube **17** checked to indicate the horizontal position of the barrel.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention, the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and within the scope of the appended claim.

Having described the invention, what is claimed as new is:

A barrel having a pair of diverging supporting legs on one end thereof, and adapted to contain a punch and to support a pair of longitudinally extending spirit level tubes spaced from said end of the barrel, a rectangular support adjacent said end of the barrel having a concave side fitting against said barrel and a dovetail rib thereon transverse to said barrel, a socket head screw securing said support to and centering the same on said barrel, a rectangular dovetail grooved block slidable on said rib and having laterally spaced parallel bores therein transverse to said barrel, a pair of spirit level tubes in said bores, plugs in the ends of said bores removable retaining said second pair of tubes in the bores, windows in said block for viewing said second pair of tubes, and a center screw in said block engageable in the socket head for centering the block and said second spirit level tubes relative to said barrel.

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