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MARKING TOOL FOR PIPES OR THE LIKE

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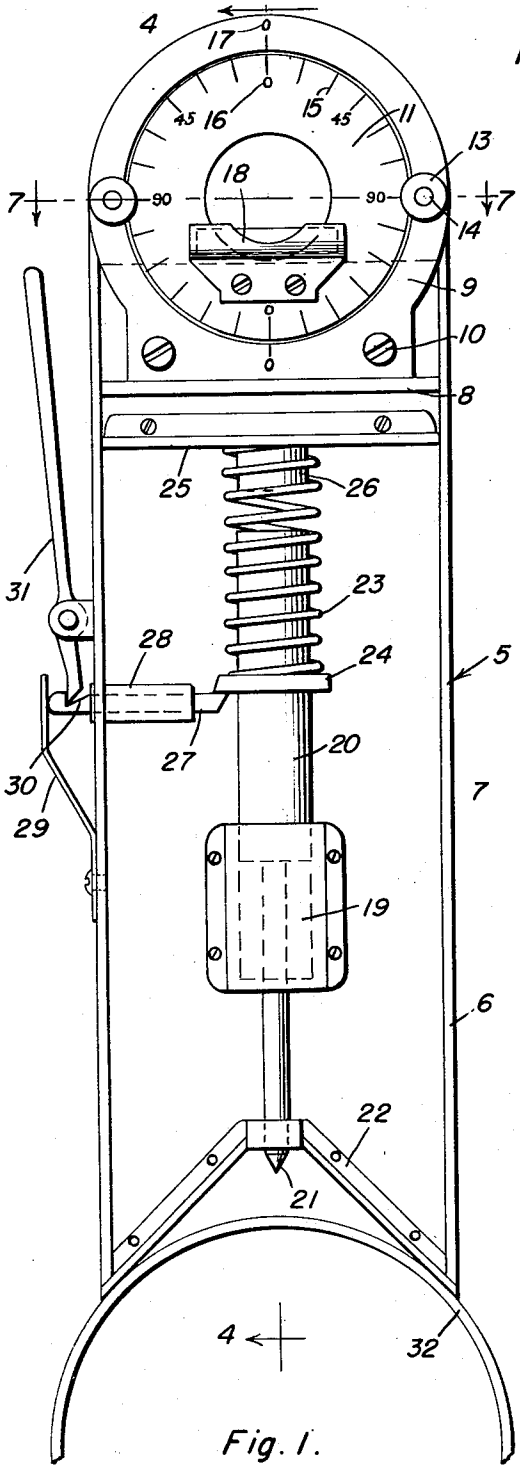


Fig. 1.

Fig. 2.

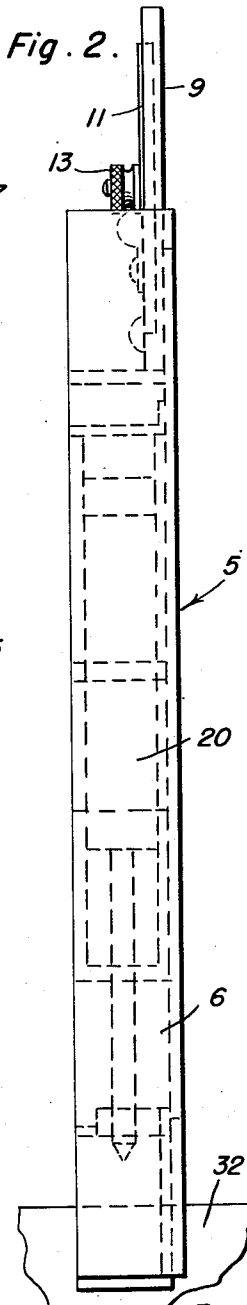
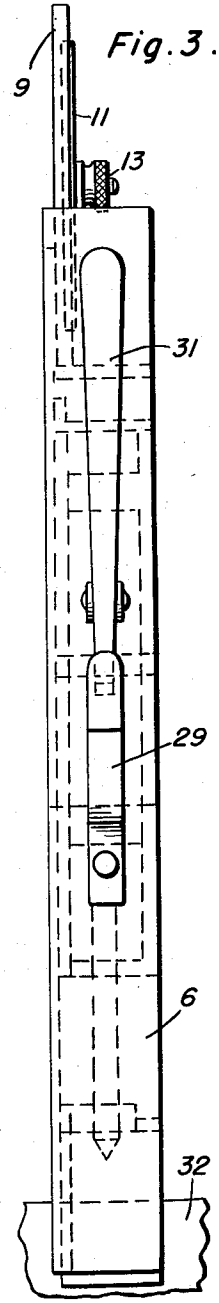


Fig. 3.



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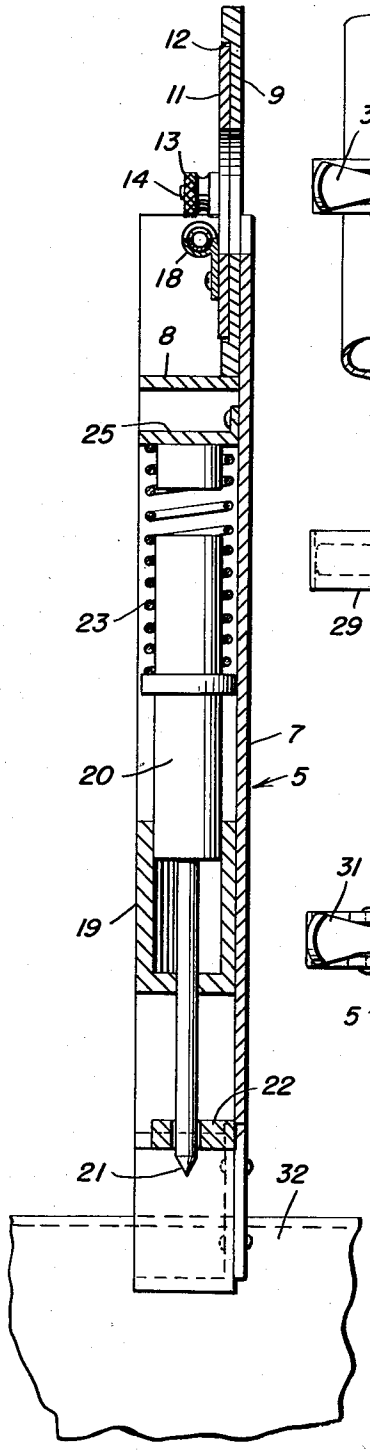


Fig. 4.

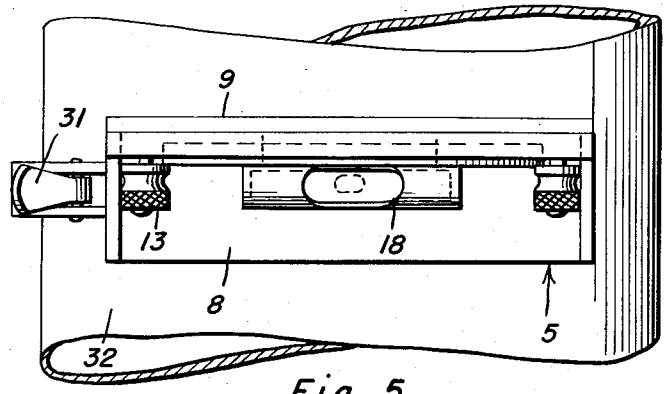


Fig. 5.

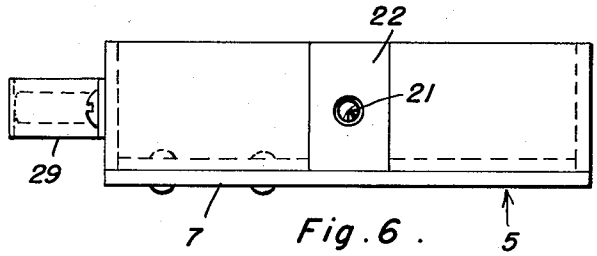


Fig. 6.

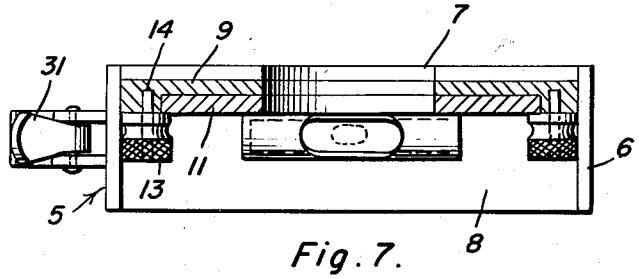


Fig. 7.

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MARKING TOOL FOR PIPES OR THE LIKE

Everett Smith, Odessa, Tex.

Application March 4, 1948, Serial No. 13,003

1 Claim. (Cl. 33—189)

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The present invention relates to new and useful improvements in marking tools and more particularly to a tool for marking the angles on pipes, shafts or the like.

An important object of the invention is to provide a spring actuated marking plunger with trip means for releasing the plunger to strike a sharp blow on the pipe whereby the tool may be held firmly and steadily on the pipe while being marked and without requiring the striking of the marker by a hammer, as is customary, and which frequently disturbs the setting of the tool and results in an inaccurate marking.

A further object is to provide a marking tool which may be accurately manipulated by one hand of a person while the other hand is free to adjust the setting or for other purposes.

Another object is to provide a tool of this character of simple and practical construction, which is efficient and reliable in use, relatively inexpensive to manufacture and otherwise well adapted for the purposes 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 front elevational view;

Figure 2 is a side elevational view showing one side of the tool;

Figure 3 is a similar view of the opposite side of the tool;

Figure 4 is a vertical sectional view taken substantially on a line 4—4 of Figure 1;

Figure 5 is a top plan view;

Figure 6 is a bottom plan view; and,

Figure 7 is a transverse sectional view taken substantially on a line 7—7 of Figure 1.

Referring now to the drawings in detail, wherein for the purpose of illustration I have disclosed a preferred embodiment of my invention, the numeral 5 designates a frame composed of a pair of spaced parallel side frame members 6 and a back plate 7. A top cross plate 8 is suitably secured between the side members 6 in front of back plate 7 and below the upper edges thereof and a circular flat head 9 is secured in an upstanding position to the back plate above cross plate 8 by screws 10.

An annular protractor ring 11 is rotatable in a recess 12 in the face of head 9 and locked in a set position by a pair of thumb nuts 13 threaded on studs 14 projecting forwardly from the head, the nuts binding against the ring 11.

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The ring 11 is provided with a scale 15 graduated in degrees reading oppositely from a zero point 16 and the head is provided with a zero setting 17 at its top and bottom.

A spirit level 18 is suitably mounted on the lower face of ring 11.

A guide 19 is secured to the face of back plate 7 in which a plunger 20 is vertically slidable, the lower end of the plunger having a sharpened marking point 21 working in an inverted V-shaped guide 22 at the lower end of frame 5, the sides of the V-guide 22 being at right angles to each other.

A coil spring 23 is positioned on the upper end of plunger 20 with its lower end engaging a washer 24 fixed to the plunger and its upper end engaging a cross plate 25 fixed to the back plate 7 and provided with a centering stud 26 for the upper end of the spring.

A catch 27 is slidable horizontally in a guide 28 carried by one of the side frame members 6 and is held inwardly with its inner end underlying the washer 24 by a leaf spring 29 engaging the outer end of the catch. A notch 30 is formed in the outer end of catch 27 in which the lower end of a pivoted trip lever 31 is engaged, the lever being positioned vertically at the outer side of an adjacent side frame member 6.

In the operation of the tool, the protractor scale of ring 11 is set in accordance with the angle to be marked on a pipe 32 and the ring locked by thumb nuts 13.

The plunger 20 is raised in guide 19 against tension of spring 23 and the washer 24 locked under catch 27. The V-shaped guide 22 at the lower end of frame 5 is then placed on the pipe and the frame moved toward one side until the spirit level 18 is horizontal which thus indicates the proper setting of the tool on the pipe at the designated angle, and trip lever 31 swung inwardly which releases catch 27 and plunger 20 then strikes a sharp blow against the pipe to mark the same.

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 the scope of the appended claim.

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

An angle indicating and marking tool comprising an elongated frame including a back plate and forwardly projecting flanges at its side edges, a substantially V-shaped frame secured in inverted position to the lower end of the back plate between the flanges and adapted for seating on round work, a flat upstanding head secured to the upper end of the back plate between the flanges, a protractor including a circular plate rotatably carried at the face of the head, locking means securing the protractor in adjusted position, a spirit level on the protractor in a recessed position between the flanges, a guide secured to the front side of the back plate between the V-shaped frame and the head, a spring projected plunger slidably carried by the guide in a recessed position between said flanges and having a marking point at its lower end, a guide at the center of the inverted V-shaped frame for the lower end of the plunger, and trip released catch means holding the plunger in a retracted position.

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REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
742,077	Sovelius	Oct. 20, 1903
833,477	Nelson	Oct. 16, 1906
1,063,342	Ekman	June 3, 1913
2,209,250	Manthey	July 23, 1940