Nov. 1, 1927. 1,647,206

W. E. WIESENTHAL

WIRE LINE SPUDDING SHOE

Filed Oct. 14, 1926

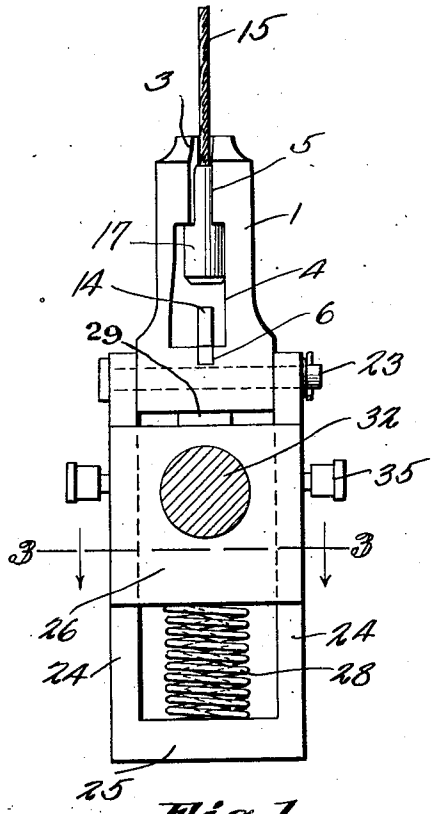


Fig. 1.

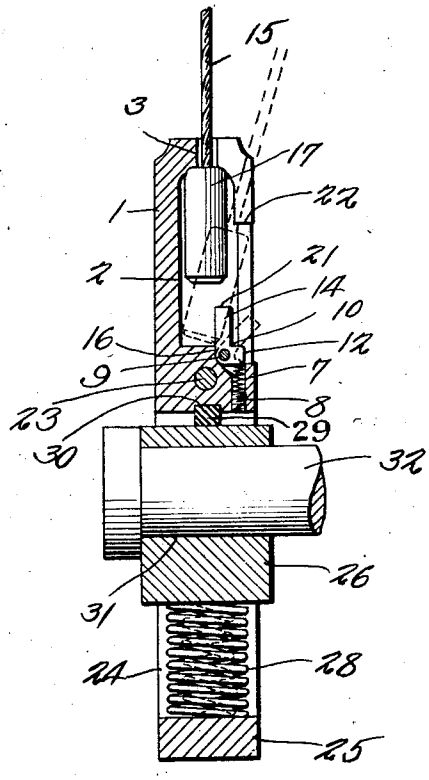


Fig. 2.

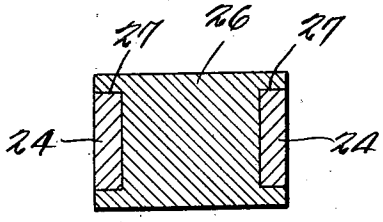


Fig. 3.

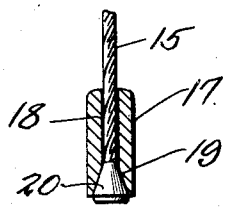


Fig. 4.

W. E. Wiesenthal
Inventor

By C. A. Snow & Co.
Attorneys.

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UNITED STATES PATENT OFFICE.

WALTER E. WIESENTHAL, OF FAIRPORT, KANSAS.

WIRE-LINE SPUDDING SHOE.

Application filed October 14, 1926. Serial No. 141,660.

This invention aims to provide a novel socket for a jerk-line, of the sort used in drilling operations, the socket being so constructed that a wire cable may be used for a jerk-line.

One object of the invention is to provide novel means whereby the jerk-line is assembled securely but detachably with the socket.

Another object of the invention is to provide novel means for assembling the socket yieldingly with the wrist pin or other actuating element.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawings:—

Figure 1 shows in elevation, a device constructed in accordance with the invention;

Figure 2 is a longitudinal section wherein parts appear in elevation;

Figure 3 is a cross section on the line 3—3 of Figure 1;

Figure 4 is a sectional view illustrating the enlargement on the jerk-line.

The device forming the subject matter of this application preferably is made of metal throughout, saving in so far as otherwise specified. It includes a body 1 having an internal longitudinal chamber 2, extended part-way through the body 1 from end to end. A reduced bore 3 in one end of the body 1, communicates with the chamber 2. In one side of the body 1 there is an enlarged opening 4 which communicates with the chamber 2. The enlarged opening 4 does not communicate with the chamber 2 throughout the entire length of the chamber. Figure 2 shows this. A reduced slot 5 is formed in the body 1 and communicates with the reduced bore 3, and with the adjacent end portion of the chamber 2. The reduced slot 5 is located at one end of the opening 4, and at the other end of the opening, there is a reduced slot 6 formed in the body 1, the slot 6 defining a shoulder 16 within the body 1. A reduced bore 7 extends from the slot 6 through the end of the body 1. In the end of the bore 7 there is a removable closure, such as a screw 8. A pivot element 9 is mounted in the body 1 and extends across the slot 6. On the pivot element 9, an angular latch 10 is mounted for swinging movement. The latch 10 includes a short arm 12 and a long arm 14. The spring 11 is located in the bore 7 and engages at one end with the screw 8. The other end of the spring 11 cooperates with the short arm 12 of the angular latch 10, to hold the long arm 14 of the latch disposed lengthwise of the body 1 and in the chamber 2.

The numeral 15 marks a jerk-line provided with an enlargement which is made up of a cuff 17 having a bore 18 in one end of which there is a conical seat 19 adapted to receive a button 20 on the jerk-line 15, the jerk-line extended through the bore 18 of the cuff 17.

In practical operation, when the parts are assembled as shown in Figure 2, the enlargement on the jerk-line 15 cannot get out of the internal chamber 2 of the body 1, because the length of the cuff 17 is greater than the distance between the end 21 of the long arm 14 of the latch 10, and the adjacent end 22 of the enlarged opening 4. The latch 10 may be tilted forwardly into the dotted line position shown in Figure 2, and, then, the enlargement or cuff 17 on the jerk-line 15 may be moved to the end of the chamber 2 and be removed through the opening 4, the jerk-line 15, passing outwardly through the slot 5 in the body 1.

The lower portion of the body 1 carries a transverse pivot element 23 on which are mounted, for swinging movement, the arms 24 of a U-shaped guide 25. The numeral 26 marks a rider having in its edges, recesses 27 wherein the arms 24 of the guide 25 are received, the rider thus being mounted for reciprocation on the guide. A compression spring 28 is interposed between one end of the guide 25 and the rider 26 and serves to force the rider 26 against a resilient abutment 29, which may be a piece of rubber, retained in a depression 30 in the end of the body 1. The rider 26 is supplied with a circular transverse opening 31 wherein is received a wrist pin 32 or other element whereby motion is imparted to the body 1 and consequently to the jerk-line 15.

In practical operation, when the wrist pin 32 is moved, motion will be transmitted to the guide 25 and consequently to the body 1, and to the jerk-line 15. The spring 28 serves to take up the shock in one direction, and the shock in the other direction is taken up by the abutment 29. If desired, the spring 28 may be of compound construction, one coiled spring being located within another, as shown in the drawings. If desired, the arms 24 may be provided with dope cups 35 for delivering grease upon the inner surfaces of the arms thereby to lubricate the rider 26 as it reciprocates.

What is claimed is:—

In a device of the class described, a body having a chamber and a side opening communicating with the chamber, the body being provided at one end with a reduced bore communicating with the chamber, the body having a reduced side slot communicating with both the chamber and the bore, the body being provided with a shoulder, a latch, means for mounting the latch on the body for swinging movement, one part of the latch projecting into the chamber, and a spring in the body, the spring engaging another part of the latch to hold the first-specified part of the latch yieldably in the position stated and in engagement with the shoulder.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

WALTER E. WIESENTHAL.