June 17, 1930. F. C. SOULEYRET 1,765,248

HINGE JOINT FOR ANCHOR JACKS

Filed Aug. 14, 1929

Fig. 1.

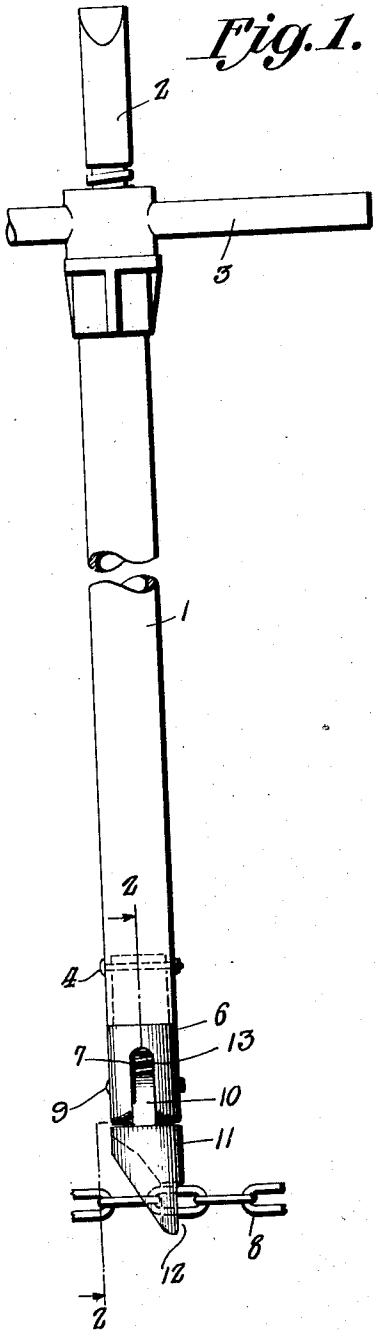
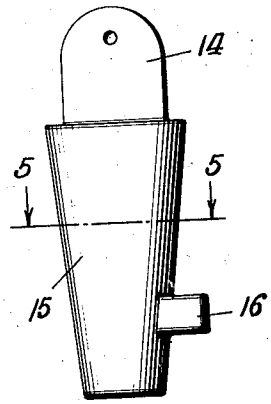


Fig. 4.



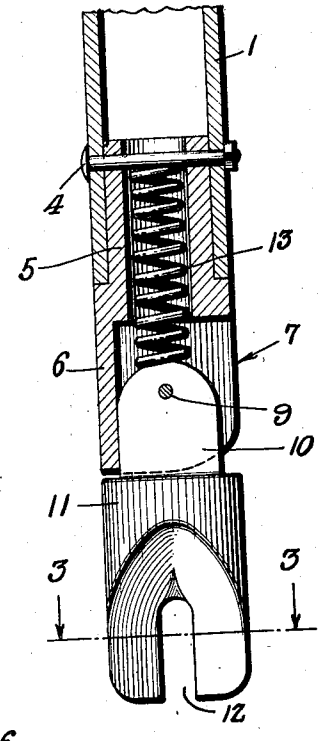
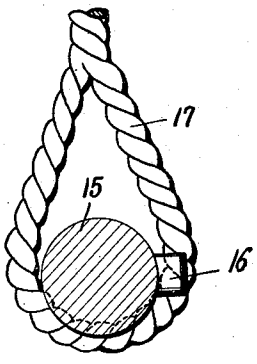


Fig. 2.



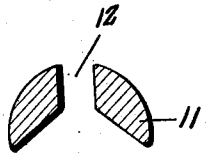


Fig. 3.

Fig. 5.

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UNITED STATES PATENT OFFICE

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HINGE JOINT FOR ANCHOR JACKS

Application filed August 14, 1929. Serial No. 385,941.

My present invention has reference to a jack, especially of the type employed for securing or bracing the feed chain or cable of a coal cutting machine in a mine room and the primary object of the invention is to provide an anchoring jack, for this and other purposes, with a pivoted foot having means thereon to engage with the link of a chain or the looped end of a cable and which is spring held in longitudinal alinement with the jack pipe and which in case of accident to the machine will insure the safety of the operator as the joint between the jack pipe and foot may be broken by foot pressure thereon, as well as providing for convenience in moving or adjusting the machine.

To the attainment of the foregoing the invention consists in the improvement hereinafter described and definitely claimed.

In the drawings:

Figure 1 is a side elevation of the improvement.

Figure 2 is an enlarged sectional view on the line 2—2 of Figure 1.

Figure 3 is a sectional view on the line 3—3 of Figure 2.

Figure 4 is a side elevation of a shoe employed for engagement with the looped end of a cable feed machine.

Figure 5 is a sectional view on the line 5—5 of Figure 4 showing the shoe engaging the looped end of this cable.

While my improvement is especially designed for use in connection with the feed chain or the feed rope or cable of a cutting machine in mines, it is to be understood that the same is applicable to any other types of machines having either chain or cable feed.

The jack pipe is indicated by the numeral 1 in the drawings. The jack pipe has let in its upper end the threaded portion of the mine roof engaging tool member, the threads of said member being engaged by the usual nut that rests on the top or head of the jack pipe 1, the said nut being formed with the oppositely extending handles 3.

In carrying out my invention I let in the lower end of the jack tube 1 and fix therein by a bolt or like element 4 the reduced end 5 of a sleeve member 6. The sleeve has one of its sides open, as at 7, and by reference to Figure 1 of the drawings it will be noted that the open side of the said sleeve is arranged transversely with respect to the longitudinal plane of the feed chain 8 for the machine, (not shown). In the sleeve 6 there is pivoted, as at 9, the ear end 10 of the foot member 11. When the foot member is to engage with the links of the chain 8 the same is flared from one of its sides to its end and the said flared portion is centrally notched, as at 12. In the tubular extension of the sleeve 6 there is arranged a comparatively strong helical spring 13 that contacts with the upper rounded portion of the ear 10 and with the securing bolt 4. The spring 13 holds the foot 11 in longitudinal alinement with the jack tube 1, but it will be apparent that in case of accident, as when the chain becomes hung or any other part of the machine gets out of order, a quick release may be obtained by one of the operators forcibly contacting with the foot or with the jack tube. This will break the joint between the jack tube and the shoe, causing the shoe to disengage its hold on the chain.

When a rope or cable feed is employed for the machine I employ a slightly different type of shoe. This shoe, as disclosed by Figures 4 and 5 of the drawings, has its upper end formed with an ear 14 similar to the ear 10 but its body portion is substantially conical, as at 15, and is provided with an offset element or lug 16 to overlie the loop 17 at the end of the feed cord or cable. The shoe is mounted in the sleeve 6 in a manner similar to that of the shoe 11, and the shoe 14 is held in longitudinal alinement with the jack tube by the spring 13.

The simplicity of the construction and the advantages thereof will, it is thought, be understood and appreciated so that further detailed description is not required.

Having described the invention, I claim:

1. An anchor jack for the purpose set forth, having a rope and chain engaging shoe pivotally secured in the lower end thereof, and spring means for holding the shoe in longitudinal alinement with the jack.

2. An anchor jack for the purpose set forth,

having a sleeve provided with a reduced end that is received in the bottom of the jack pipe and a bolt securing the said reduced end of the sleeve in the pipe, said sleeve having one of its sides open, a shoe having an ear end received in the sleeve and pivoted thereto, said shoe having means thereon to engage with a feed rope or chain, and a helical spring exerting a pressure between the bolt and the top of the ear for holding the shoe in longitudinal alinement with the jack.

In testimony whereof I affix my signature.

FRED C. SOULEYRET.