July 20, 1926. 1,592,942

J. G. HANSON

CRANK HANDLE

Original Filed May 10, 1924

Fig. 1.

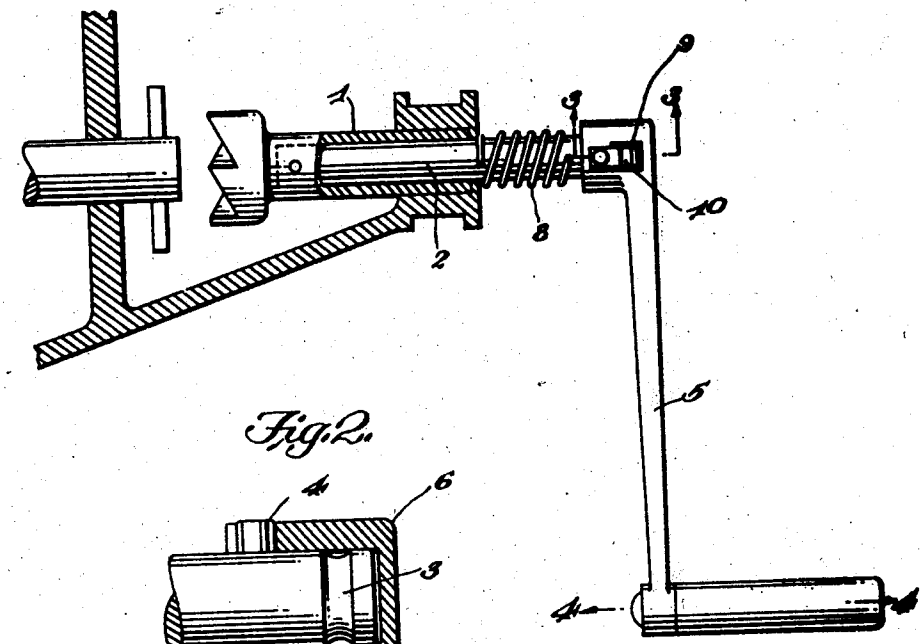


Fig. 2.

Fig. 3.

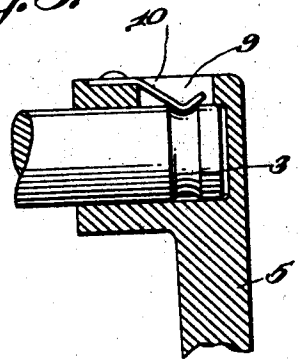
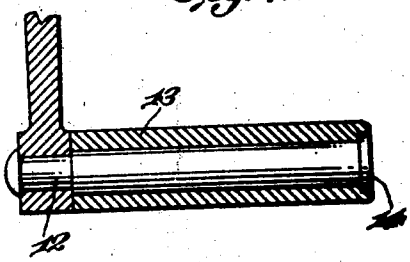


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN G. HANSON, OF SANISH, NORTH DAKOTA.

CRANK HANDLE.

Application filed May 10, 1924, Serial No. 712,406. Renewed December 18, 1925.

This invention relates to a crank handle or crank device for internal combustion engines and has for its primary object the mounting of a crank arm so that the same may be yieldably left engaged with the crank element or may be entirely disengaged.

An object of the invention is the construction of a crank handle which may be left attached to the cranking stub shaft without possibility of accidentally losing same but may be readily entirely disconnected from the stub shaft if found advisable.

With these and other objects in view the invention will be better understood from the following detailed description taken in connection with the accompanying drawing wherein:

Fig. 1 is a side elevation of my improved crank handle shown in applied position.

Fig. 2 is an enlarged sectional view.

Flg. 3 is a sectional view on the line 3—3 Fig. 1.

Fig. 4 is a sectional view on the line 4—4 Fig. 1.

Again referring to the drawing illustrating one of the many constructions of my invention the numeral 1 designates in its entirety the usual cranking element of an internal combustion engine. In this particular case a slidable stub shaft 2 has an annular groove 3 arranged contiguous to the lugs 4. The crank arm 5 has a socket 6 receiving therein the groove 3 and further having recesses 7 for the reception of the lugs 4 during the cranking operation. The numeral 8 designates the usual spring to bring about disengagement of the stub shaft and crank shaft of the engine. The socket is provided with an opening 9 so that the cam shaped end 10 of a leaf spring may engage in the groove 3 when the socket has been moved to position to engage the lugs. Secured to the end of the arm 5 is a pin 12 upon which is rotatably mounted the sleeve 13, the pin being provided with a head 14 to prevent disconnection of the sleeve.

From the foregoing description taken in connection with the accompanying drawing it will be seen that the crank arm may be readily slipped on the stub shaft and held in place by movement of the leaf spring with the groove so as to prevent accidental loss of the crank arm but upon exerting predetermined pressure in the required direction the crank arm may be disconnected from the stub shaft.

It is of course to be understood that the invention may be constructed in various other manners and the parts associated in different relations, therefore, I do not desire to be limited in any manner except as set forth in the claim hereunto appended.

Having thus described my invention what I claim is:

In combination with a cranking element for internal combustion engines including a longitudinally slidable stub shaft having an annular groove in its perimeter adjacent one end, a longitudinally disposed lug on the shaft contiguous to the groove, a bearing supported for the shaft, a crank handle having a socket for receiving the grooved end of the shaft and having recesses for receiving the lugs, a coil spring on the shaft disposed between the socket and bearing support, said socket having an opening and a leaf spring secured to the socket at one side of the opening and having a cam shaped end normally projecting through the opening and adapted to engage within the groove.

In testimony whereof I affix my signature.

JOHN G. HANSON.