G. COOK.

SHOCK ABSORBER AND SAFETY ATTACHMENT FOR PERCUSSION OPERATED TOOLS.

APPLICATION FILED AUG. 31, 1914.

1,142,238. Patented June 8, 1915.

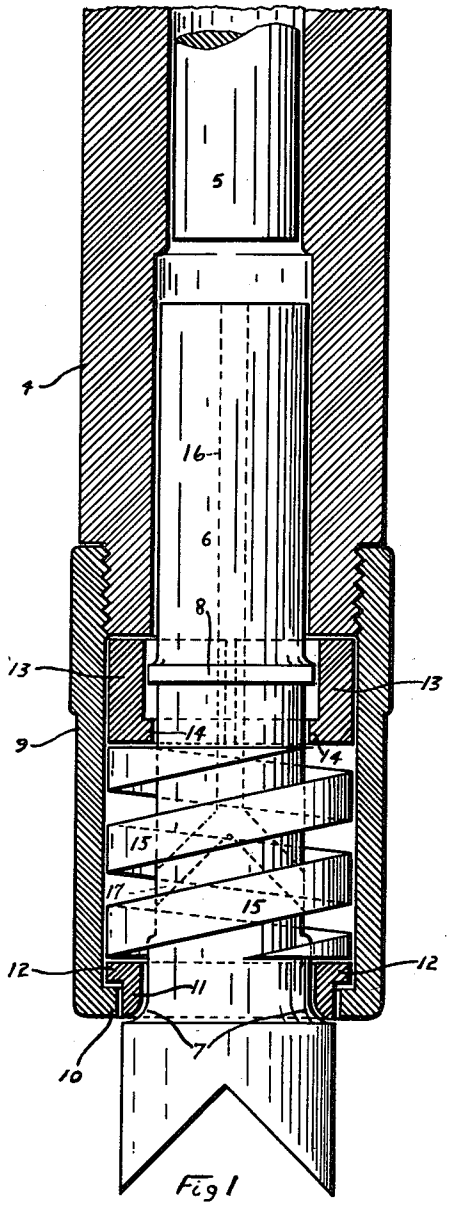


Fig 1

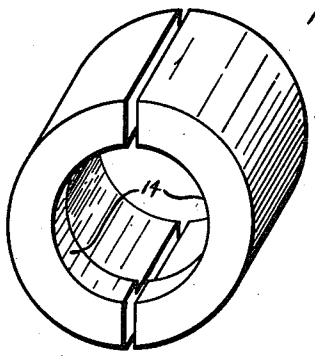


Fig 3

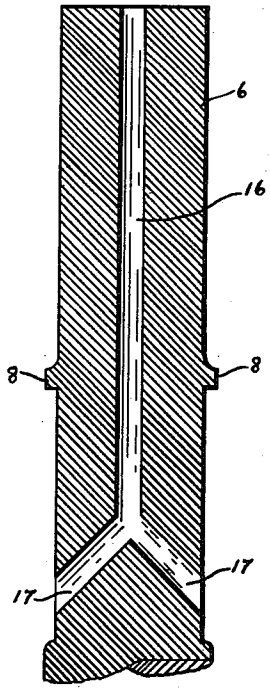


Fig 2

George Cook
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Witnesses
C. Merion Hicks.
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UNITED STATES PATENT OFFICE.

GEORGE COOK, OF SIOUX CITY, IOWA.

SHOCK-ABSORBER AND SAFETY ATTACHMENT FOR PERCUSSION-OPERATED TOOLS.

1,142,238. Specification of Letters Patent. Patented June 8, 1915.

Application filed August 31, 1914. Serial No. 859,538.

To all whom it may concern:

Be it known that I, GEORGE COOK, a citizen of the United States, and a resident of Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Shock-Absorbers and Safety Attachments for Percussion-Operated Tools, of which the following is a specification.

The present invention relates to means for absorbing the shock and preventing displacement of percussion-operated tools.

The invention has for its primary object the production of an improved shock-absorbing device which may be readily attached to and detached from pneumatic hammers.

Another object of the invention is the provision in a device of this class of means for preventing the driven tool from being thrust entirely from the hammer.

With these and other objects in view, the invention, consisting in the construction, combination and novel arrangement of parts, will be fully understood from the following description, reference being had to the accompanying drawings which form a part of this application and in which like characters of reference indicate corresponding parts throughout the several views, of which—

Figure 1 is a longitudinal section of a device constructed in accordance with the invention and attached to a pneumatic hammer; Fig. 2 is a longitudinal section of the driven tool, the head thereof being cut away; and Fig. 3 is a perspective view of the retaining collar.

Referring now to the illustrations, 4 represents the barrel of a pneumatic hammer, inclosing the usual plunger, 5, which drives the tool, 6, protruding from the barrel. The tool, 6, has the customary head which affords a shoulder, 7; and the shank of the tool is formed with an intermediate shoulder, 8.

9 is a cylindrical casing threaded upon the end of the barrel and provided with an internal rim, 10, adjacent its outer end, and freely encircling a collar, 11, having a flange, 12, engaged by the rim. The casing freely incloses a split collar, 13, comprising duplicate semi-cylindrical halves, each having in its end opposite from the barrel, an inner shoulder, 14.

The driven tool is encircled by both the collar 11 and the split collar, the former engageable with the head of the tool and the latter inclosing the shouldered part 8 of the shank, said shouldered part being engageable with the shoulder 14. The collars are yieldably separated as by a compression-spring, 15. As the tool is so inclosed and reciprocates so rapidly, the tendency to heat is overcome by providing a longitudinal bore, 16, which extends through the shank of the tool and communicates with forwardly-disposed lateral bores, 17.

To apply the device, the driven tool having been first mounted with the collars and spring, is introduced into the casing and the latter then screwed upon the barrel of the hammer.

In operation the split collar prevents the tool from being thrust entirely from the hammer, and when the tool rebounds from the work, the shock is absorbed by the yieldably-mounted collar, 11.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is,—

In an article of the class described, a percussion-operated tool and operating mechanism therefor including a barrel and a plunger reciprocating therein, said tool having two shoulders, in combination with a cylindrical casing adapted to freely inclose the shank of the tool and having an internal rim in one end and threaded at the other end for engagement with the barrel, a collar freely inclosed by the casing, adapted to receive the shank of the tool and engage one of the shoulders thereof and having a flange to engage said rim, a second collar inclosed by said casing and adapted to receive the shank of the tool, said second collar being divided longitudinally in two parts, each part having an internal shoulder adapted for engagement by the shoulder opposite to that engaged by said first collar, and a compression-spring interposed between said collars.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE COOK.

Witnesses:
M. S. CRANDALL,
C. MERION HICKS.