June 26, 1945. G. D. PORTER ET AL 2,379,182

ATTACHMENT FOR DRILLS

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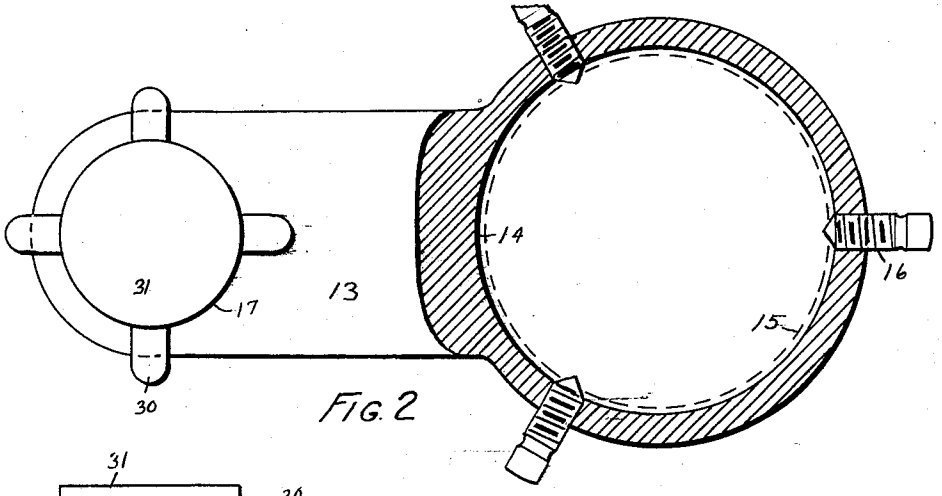


FIG. 2

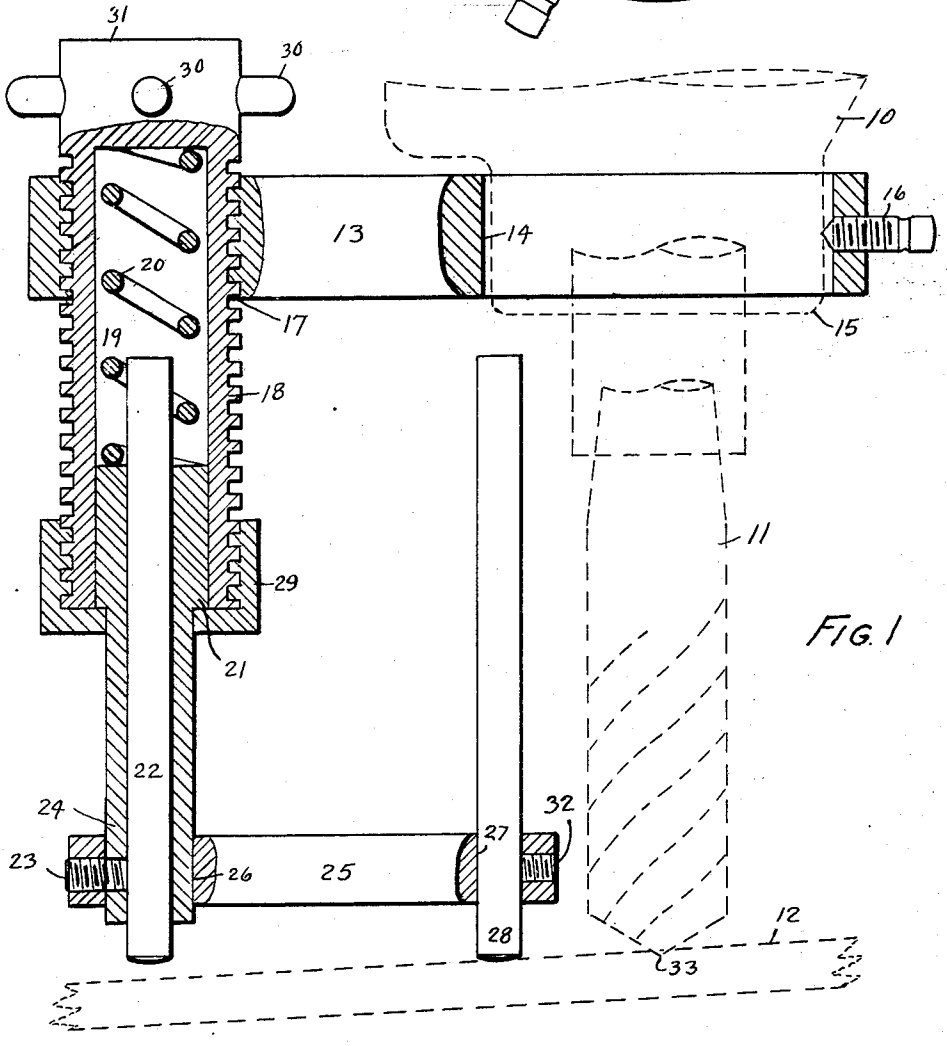


FIG. 1

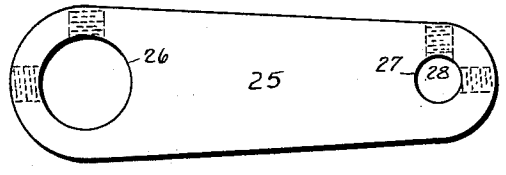


FIG. 3

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ATTACHMENT FOR DRILLS

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2 Claims. (Cl. 77—55)

This invention relates generally to devices for drilling and particularly to an attachment for drills.

The main object of this invention is to provide an attachment for manually fed drills whereby the bit will be prevented from sticking and catching, causing undesirable action.

The second object is to provide a drill attachment which will expedite the drilling of holes through plates, the advantages being most apparent where the work is inclined somewhat with relation to the drill, in which case one side of the bit breaks through the work first and catches on a ridge of material, inclines through the hole pulling the entire drill with it away from whatever means is employed to feed it.

These and other objects will become more apparent in the following specification as illustrated in the accompanying drawing in which:

Fig. 1 is a partial vertical section through the device.

Fig. 2 is a plan showing the portion broken away in horizontal section.

Fig. 3 is a bottom view of an auxiliary attachment.

Similar numbers refer to similar parts throughout the several views.

Referring in detail to the drawing, there is shown a common form of manually fed power driven drill 10 whose drill bit 11 in this instance is to drill a hole through the inclined plate 12. The drill 11 is relatively large compared with the plate 12 and it is well known that in such cases a drill is apt to break through on one side with bad results.

Referring in particular to my device, same will be seen to consist of a bracket 13 having an opening 14 at one end adapted to receive the neck 15 of the drill 10 which may be secured thereto by means of the set screws 16. The bracket 13 is provided with a threaded opening 17 through which extends a threaded sleeve 18 within whose central opening 19 is disposed a compression spring 20. Within the opening 19 is placed a tubular piston 21 which bears against the spring 20 and has contained therein a rod 22 which is slidable within the piston 21 but can be clamped in any desired position by means of the set screw 23.

The auxiliary bracket 25 has a second opening 27 in which is inserted the rod 28 whose function is identical to the rod 22 except that it is brought nearer to the drill bit 11 which is often times found desirable.

A gland nut 29 is placed on the lower end of the sleeve 18 and prevents the escape of the piston 21. Handles 30 project from the upper end 31 of the sleeve 18 and afford an easy means of rotating same.

In the operation of the drill, which it will be understood is in most cases driven by power but is fed manually usually by means of a pry, the rod 22 or 28 is set by means of the set screw 23 or 32 so that it will be slightly back of the point 33 of the drill bit 11. As the drilling proceeds, the piston 21 compresses the spring 20 so that by the time the bit 11 is near the danger point, that is when it is breaking through on one side of the hole, the spring 20 is resisting materially the feeding action and prevents the drill bit 11 from spiraling through the badly formed hole in the work 12.

We claim:

1. In a device of the class described, the combination of an elongated bracket having means for attaching one end of same to a power drill and having a threaded opening at the other end thereof, a threaded sleeve extending downwardly through said opening in parallelism with the axis of the drill bit, a compression spring mounted in said sleeve, a tubular piston below said spring, a rod adjustably mounted in said tubular piston, and means for securing said rod within said piston.

2. In a device of the class described, the combination of a bracket having a threaded opening at one end thereof and means for attaching the other end thereof to a power drill, a threaded sleeve passing through said threaded opening in parallelism with the axis of the drill bit, a handle for rotating said threaded sleeve, a compression spring within said threaded sleeve, a piston in said sleeve below said spring, a gland nut for retaining said piston in said sleeve, and a rod connected to said piston and adjustable with relation to the point of the drill bit whereby one end of said rod will engage the work behind the point of said bit and whereby the drilling of a hole will cause said rod to compress said spring and offer a spring resistance to the feeding action of the drill.

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