No. 686,257. Patented Nov. 12, 1901.

J. BURGH.

DRILL ATTACHMENT.

(Application filed May 13, 1901.)

(No Model.)

Fig. 1.

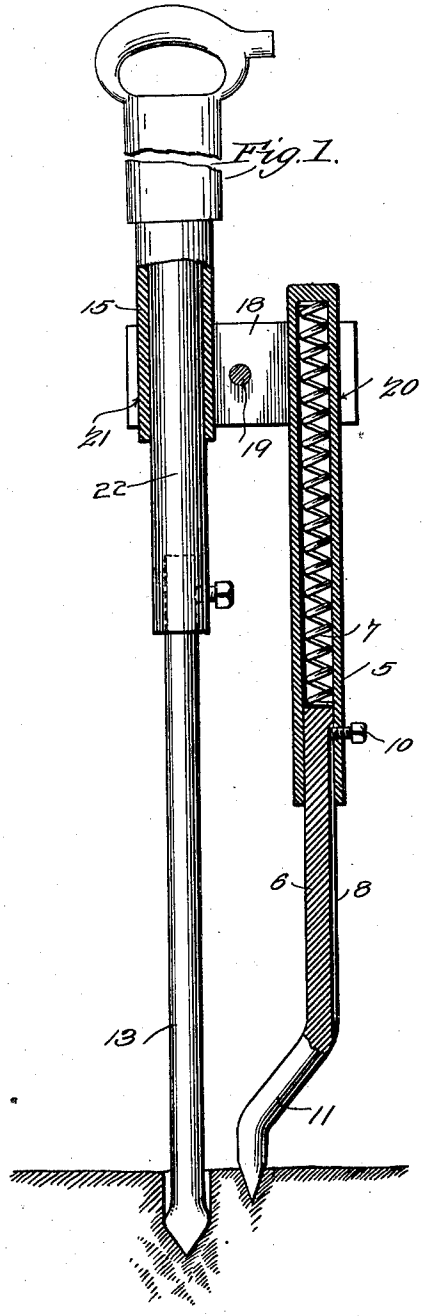
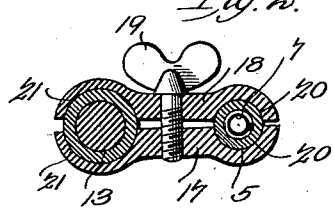


Fig. 2.



Witnesses
E. F. Stewart
Geo. H. Chandlee.

J. Burgh, Inventor
by C. A. Snow & Co
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN BURGH, OF REYNOLDSVILLE, PENNSYLVANIA.

DRILL ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 686,257, dated November 12, 1901.

Application filed May 13, 1901. Serial No. 60,073. (No model.)

To all whom it may concern:

Be it known that I, JOHN BURGH, a citizen of the United States, residing at Reynoldsville, in the county of Jefferson and State of Pennsylvania, have invented a new and useful Drill Attachment, of which the following is a specification.

This invention relates to attachments for pneumatic and other drills; and it has for its object to provide a device which may be secured to the drill in such manner as to support the drill and steady it so that it will not wabble, as when using small drills or drills of great length.

A further object of the invention is to provide a device of this nature which may be automatically adjusted in length as the drilling operation proceeds.

Further objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a view showing the present attachment in longitudinal section, excepting the lower end thereof, and illustrating its cooperative relation to the drill, a portion of a drill being shown in elevation. Fig. 2 is a transverse section through the adjustable attaching-clip. Fig. 3 is an elevation of a pneumatic drill provided with my improved attachment.

In the embodiment of my invention I provide a tubular body portion 5 of suitable length and the upper end of which is closed, as shown, while the lower end thereof is open, the body portion being straight, and in its operative position it is adapted to stand vertical and with its open end down.

In connection with the tubular body portion 5, which forms the upper member of the attachment, there is a staff 6, the upper end of which is straight and is formed to fit snugly and slidingly in the tubular member 5. Within the member 5 and between the upper end of the member 6 and the closed end of the member 5 is disposed a helical spring 7, the upper end of which rests against the closed end of the member 5, while the lower end thereof rests against the inner end of the member 6, and the tension of this spring is such that it holds the member 6 yieldably projected from the lower end of the member 5. To limit the movement of the member 6 under the influence of the spring 7, the member 6 is provided with a longitudinal slot 8, which extends from a point near to the upper end of the member 6 downwardly thereof, and engaged in this slot or channel is a stop-screw 10, which is passed through a threaded perforation in the wall of the member 5. When the member 6 moves downwardly or outwardly under the influence of the helical spring, the end wall of the slot 8 strikes the stop-screw and is held thereby, so that further movement of the member is prevented. The lower end of the member 6 is offset, as shown at 11, and is pointed, so that it may be engaged with the material to be drilled in such manner as to prevent slipping sidewise.

In practice this attachment, which is in the nature of a standard, is attached to the drill with the member 5 and the upper portion of member 6 parallel with the reciprocating plunger 22, which carries the drill-bit 13, and with the offset lower end of the member 6 deflected in the direction of the drill-bit, so as to lie close thereto.

The standard is attached to a fixed portion of the drill, as the sleeve 15, by means of a clip consisting of the plates 17 and 18, which are connected midway of their ends by the thumb-screw 19. The plates at one end have the recesses 20 therein to receive the member 5 of the standard, while at their opposite ends they have the recesses 21, which receive the sleeve of the drill, and by tightening the thumb-screw the plates are drawn closely to clamp them tightly against the member 6 and the sleeve of the drill, so that the drill and standard are held in fixed relation. With this construction it will be seen that the standard may be attached to drills having sleeves of different diameters.

In the use of this device it is adjusted to place, as shown in Fig. 1, and as the drilling proceeds and the distance between the material drilled and the sleeve of the drill decreases the member 6 is pressed upwardly into the member 5 of the standard, the resistance of the spring being such as to prevent jostling of the member 5 up and down during the drilling operation.

It will be understood that in practice modifications of the specific construction shown may be made and that any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A pneumatic hand-drill having a guide parallel with and on one side of the plunger, and a spring-projected staff, carried by said guide and adapted to engage the work, for the purpose set forth, substantially as described.

2. A pneumatic hand-drill having a guide parallel with and on one side of the plunger, a staff carried by said guide and longitudinally movable therein, and a spring in said guide, bearing on said staff, for the purpose set forth, substantially as described.

3. A device of the class described comprising a tubular body having its upper end closed, a rod slidably disposed in the tubular member and having its lower end offset and drawn to a point, a spring within the tubular member between the end of the rod and the closed end of the tubular member to hold the rod yieldably projected, and a stop for limiting the movement of the rod under the influence of the spring.

4. A device of the class described comprising a tubular body having its upper end closed, a rod slidably disposed in the body and projecting at its lower end therefrom, a helical spring in the body between the rod and the upper end of the body to hold the rod yieldably projected, said rod having a groove formed longitudinally thereof and terminating short of its upper end, and a stop-screw engaged with the body and entering the groove to limit the movement of the rod.

5. An attachment for pneumatic hand-drills, comprising a guide, means to secure the same to the body of the drill on one side of the plunger of the latter, and a spring-projected staff carried by said guide, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN BURGH.

Witnesses:
A. M. APPLEGATE,
CHARLES A. HERPEL.