

No. 731,173.

PATENTED JUNE 16, 1903.

G. C. GAUCHER.

ADJUSTABLE SUPPORT FOR DRILLS OR THE LIKE.

APPLICATION FILED AUG. 29, 1902.

NO MODEL.

Fig. 1

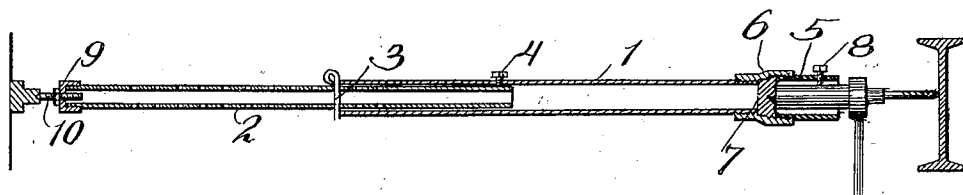


Fig. 2

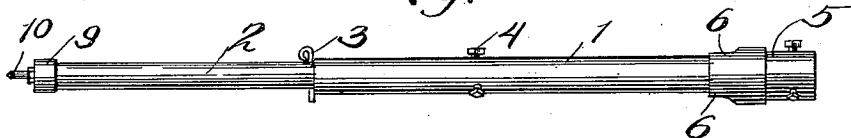


Fig. 4

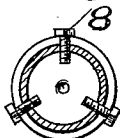
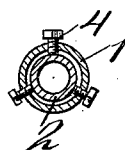


Fig. 3



WITNESSES:

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ADJUSTABLE SUPPORT FOR DRILLS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 731,173, dated June 16, 1903.

Application filed August 29, 1902. Serial No. 121,413. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. GAUCHER, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Adjustable Supports for Drills or the Like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in adjustable supports for drills and the like, such as are used for supporting hand-drills while drilling or reaming holes in structural-iron work, such as the beams, columns, and pillars of buildings, elevator-columns, and the like; and it consists in a novel extensible support whereby the use of clamps and the like is avoided.

The objects of my invention are to facilitate the securing of drills during the boring, drilling, or reaming of holes in structural-iron work and the like, to avoid the necessity of breaking through walls, floors, or ceilings to obtain support for the drill, to increase the speed with which the drilling of holes in structural-iron work after the same has been erected may be done, and to make the support simple, compact, easily adjusted, and composed of few parts.

I will now proceed to describe the invention with reference to the accompanying drawings, in which one form of drill-support embodying my invention is illustrated, and will then point out the novel features in the claim.

In the said drawings, Figure 1 shows a longitudinal section of my improved drill-support, the same being shown as if in use. Fig. 2 shows a side view of the device. Fig. 3 shows a cross-section through the telescopic joint. Fig. 4 shows a cross-section through the socket which receives the end of the drill-brace.

According to present methods when a hole is to be drilled in a beam, girder, pillar, or column after the same is in place a clamp is secured to the beam or other object into which the hole is to be drilled, said clamp serving as a support for the drill-brace during the drilling of the hole; but to attach the

clamp it is frequently necessary to break through a wall, floor, or ceiling, and this frequently involves much time and labor. Moreover, the cost of repairing the holes thus made is considerable. Furthermore, the clamps used consist of a number of parts detachable from each other, and it often happens that some of these parts are lost. To properly adjust such clamps also takes considerable time.

According to my invention I provide a support for the drill-brace consisting of a portable bracing piece or strut, adjustable in length, preferably by means of a telescopic joint, having at one end a socket adapted to receive the end of the drill-brace and adapted to be placed against any convenient object opposite the point where the hole is to be drilled—such, for example, as an adjacent beam or column.

Referring now to the accompanying drawings, the drill-support there shown consists of two tubular members 1 and 2, the latter arranged to telescope within the former. These members may be formed of iron pipe of standard size. Tube 2 is provided with a series of holes, through any one of which a pin 3 may be thrust, and thereby the length of the support varied. The tube 1 is provided with screws 4 for centering and clamping tube 2. At its end the larger tube 1 is provided with a socket for receiving the end of the drill-brace. This socket is preferably formed by connecting a short tube 5 of suitable size to tube 1 by means of a coupling 6. A bottom piece 7 is held within the coupling, being clamped between the ends of tubes 1 and 5, and this bottom piece preferably has a conical center hole to receive the end of the drill-brace. Tube 5 is provided with screws 8 to guide and center the drill-brace. The end of tube 2 is provided with a threaded cap 9, carrying a center point 10.

Fig. 1 shows how the drill-support is used. The end of the drill-brace having been placed within the socket 5, the support is placed against any convenient object opposite the point at which the hole is to be drilled, and as soon as the drill is well started in the hole the whole device is self-supporting. When the hole is finished and the drill withdrawn therefrom, the whole device may be removed to a

new location without the loosening of nuts or clamps and without taking the device apart.

Since by the use of this device the pressure required for feeding the drill is applied
 5 directly in the axial line thereof, once the drill is started it will continue to bore in a straight line. This is not the case with drill-supports consisting of angle-pieces clamped to
 10 the beam to be drilled and which must necessarily be clamped at a point above or to one side of the hole to be drilled. The pressure required for feeding tends to press such angle-pieces out of position, thus tending to prevent the drill from feeding straight. The
 15 side pressure also frequently causes the drill to break.

It is obvious that the improved drill-support herein described is susceptible of variations and modifications in construction, and
 20 therefore I do not limit myself to the particular details of construction herein shown and described.

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

In a support or bracing-strut for drills and the like, the combination with two members telescopically connected, one of said members being tubular and adapted to receive within it
 25 the other member, of a tubular socket-piece for receiving a drill-brace or similar device, a coupling connecting said socket-piece to one
 30 of said telescopic members, and a bottom piece for said socket, clamped within the coupling between the ends of said socket-
 35 piece and the adjacent telescopic member and having in it a centering-recess.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE C. GAUCHER.

Witnesses:

HARRY M. MARBLE,
 C. F. CARRINGTON.