No. 653,338. Patented July 10, 1900.

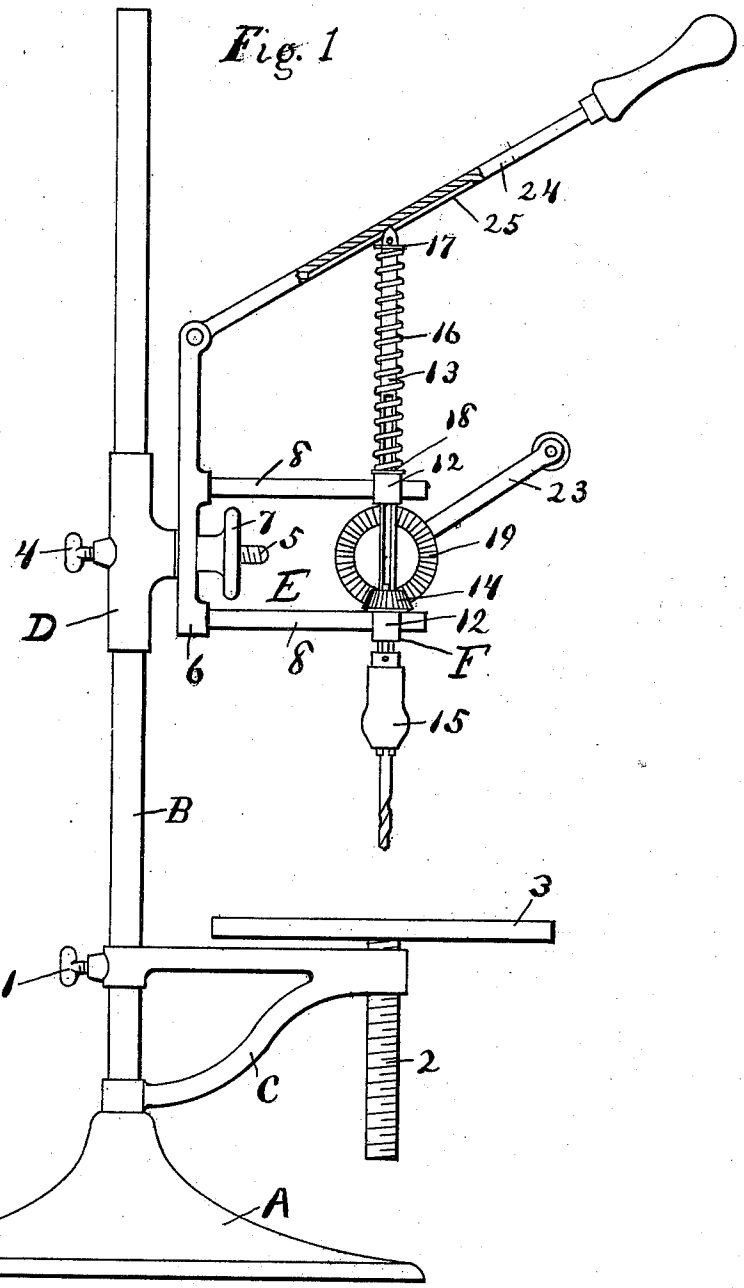
H. DE TAMBLE.

DRILL PRESS.

(Application filed Mar. 27, 1899. Renewed June 18, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1



Witnesses:
E. F. Wilson
J. A. Williamson.

Inventor:
Henry De Tamble
By Rudolph Kuhn & Lotz
Attys.

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

No. 653,338. Patented July 10, 1900.

H. DE TAMBLE.

DRILL PRESS.

(Application filed Mar. 27, 1899. Renewed June 13, 1900.)

(No Model.) 2 Sheets—Sheet 2.

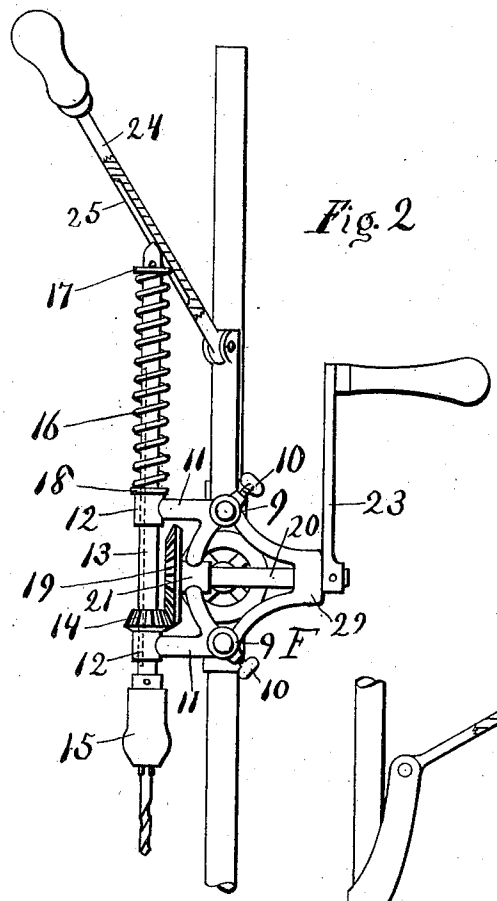


Fig. 2

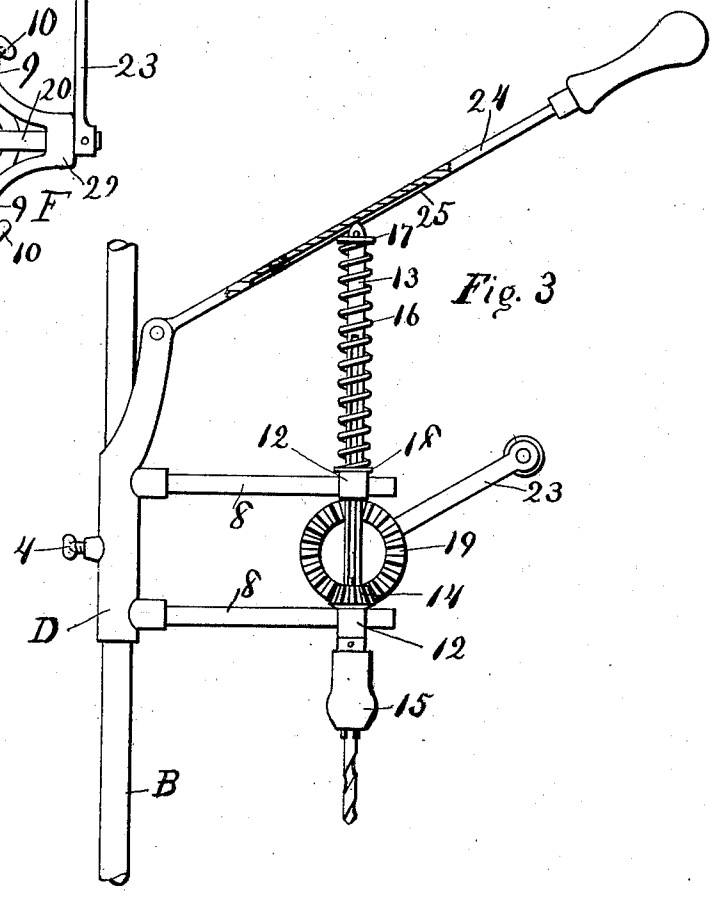


Fig. 3

Witnesses:
E. F. Wilson
J. C. Williamson,

Inventor:
Henry De Tamble
By Rudolph Kleiner
Atty.

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

UNITED STATES PATENT OFFICE.

HENRY DE TAMBLE, OF AURORA, ILLINOIS, ASSIGNOR OF ONE-HALF TO CHARLIE P. DORN, OF NAPERVILLE, ILLINOIS.

DRILL-PRESS.

SPECIFICATION forming part of Letters Patent No. 653,338, dated July 10, 1900.

Application filed March 27, 1899. Renewed June 13, 1900. Serial No. 20,217. (No model.)

To all whom it may concern:

Be it known that I, HENRY DE TAMBLE, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Drill-Presses; 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 a novel construction in a drill-press, the object being to provide a device of this character which is portable and can be operated by hand and can also be used to drill in any desired direction; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a side elevation of a drill-press constructed in accordance with my invention. Fig. 2 is a fragmentary end elevation of same. Fig. 3 is a fragmentary side elevation of a modified form of construction.

Referring now to said drawings, A indicates the base, upon which a standard B is mounted. A bracket C is slidingly and revolubly mounted on said standard and is adapted to be secured thereon in any desired position by means of a set-screw 1. In the free end of said bracket C is a vertical screw-threaded opening adapted to receive the screw-threaded shank 2 of the table 3, which is thus vertically adjustable in said bracket. A sleeve D is also mounted on said standard B and is adapted to be held in any desired position thereon by means of the set-screw 4. Midway between its ends said sleeve D carries a rigid horizontal screw-threaded projection 5, on which the member 6 of a frame E is pivotally mounted and is adapted to be rigidly held in any desired position by means of the hand-wheel 7, which clamps said member 6 firmly against the sleeve D. Rigidly mounted in said member 6 of said frame E are two parallel horizontal arms 8, on which a frame F is adjustably mounted by means of sleeves 9 thereon, which are held rigid on said arms 8 by means of set-screws 10. Said frame F comprises two horizontal arms 11, extending outwardly from said sleeves 9 and carrying bearings 12 at their ends, in which the spindle 13 is revolubly and longitudinally movable. A bevel gear-pinion 14 is mounted on said spindle 13 between said bearings 12 and is longitudinally movable thereon, but is held against relative rotation by means of the usual key and key-seat arrangement. Said spindle carries a chuck 15 at its lower end and is normally held at the upper limit of its movement by means of a spring 16, bearing at its lower end against the upper bearing 12 and at its upper end against a collar 17 on said spindle, a washer 18 being interposed between said spring and the bearing 12, which is likewise held against rotation in an obvious manner. Said gear-pinion 14 intermeshes with a bevel-gear 19, mounted upon one end of a horizontal shaft 20, which is mounted in bearings 21 and 22 in said frame F. At its other end said shaft 20 carries a crank-arm 23, by means of which it is turned. Said spindle 13 is moved vertically by means of a lever 24, pivotally mounted at one end in said member 6 of said frame E and provided at its lower face with a groove 25, into which the rounded upper end of said spindle projects.

My device is operated by turning the crank-arm 23 with the right hand and depressing the lever 24 with the left. As will be obvious, the frame E can be turned to drill in any desired direction from vertically downwardly to vertically upwardly and can be used to drill stationary objects by moving the table 3 out of the way.

In Fig. 3 I have shown a modified form of construction in which the frame E is integral with the sleeve D, so that the drill can operate only vertically.

I claim as my invention—

A drill-press comprising a base, a standard mounted thereon, a bracket vertically and revolubly mounted thereon, a screw-threaded opening in the free end of said bracket, a plate having a screw-threaded shank adapted to enter said opening, carried by said bracket, a sleeve longitudinally and revolubly adjustable on said standard, a screw-threaded shank on said sleeve, a frame revoluble on said shank and adapted to be adjustably secured by means of a hand-wheel, said frame com-

prising a standard having two horizontal arms rigid therewith, and a lever pivotally mounted upon the upper end thereof and provided with a groove in its lower face, a frame slidably mounted on said parallel arms of said first-named frame and carrying two arms extending transversely to said arms of said first-named frame, bearings in the end of said arms, a vertical spindle journaled in said bearings and longitudinally and revolubly movable therein, a groove in said spindle, a collar thereon above said uppermost bearing adapted to engage said groove, a spring surrounding said spindle at its upper end and bearing against said collar and a second collar at the upper end of said spindle, a conical end on said spindle adapted to enter said groove in said pivoted arm on said first-named frame, a bevel-pinion on said spindle and longitudinally movable thereon, a horizontal crank-shaft journaled in bearings in said last-named frame, and a bevel gear-wheel carried by said crank-shaft and intermeshing with said bevel-pinion on said spindle, substantially as described.

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

HENRY DE TAMBLE.

Witnesses:
RUDOLPH WM. LOTZ,
JOHN D. WILLIAMSON.