J. H. RUSBY.

BREAST DRILL.

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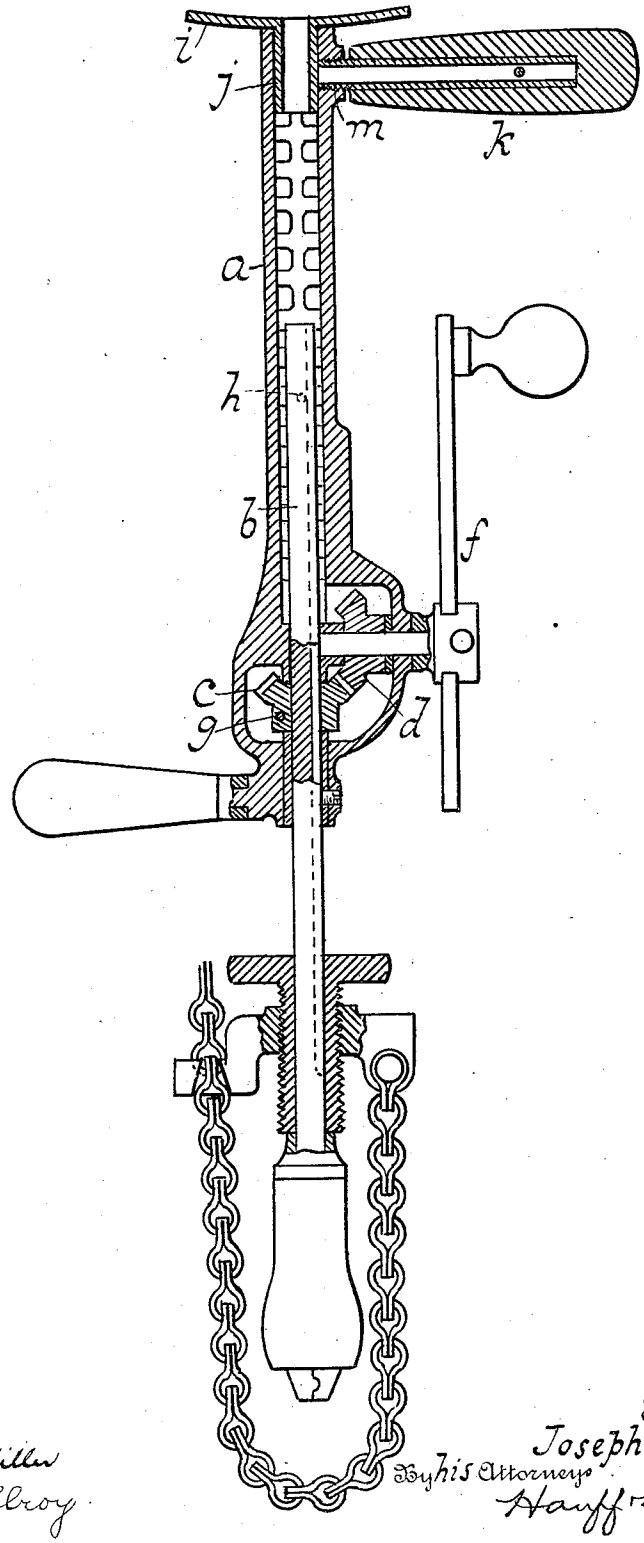
1,046,223.

Patented Dec. 3, 1912.



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UNITED STATES PATENT OFFICE.

JOSEPH H. RUSBY, OF NUTLEY, NEW JERSEY.

BREAST-DRILL.

1,046,223. Specification of Letters Patent. Patented Dec. 3, 1912.

Original application filed September 18, 1909, Serial No. 518,308. Divided and this application filed August 1, 1911. Serial No. 641,832.

To all whom it may concern:

Be it known that I, JOSEPH H. RUSBY, a citizen of the United States, residing at Nutley, county of Essex, State of New Jersey, have invented new and useful Improvements in Breast-Drills, of which the following is a specification.

This invention relates to a breast drill the shaft of which can be extended to a greater or less extent as required for varying kinds of work. The shaft of the drill can be driven by hand or by a motor or any other well known way.

The present invention relates to the means employed for fastening the breast plate to the tubular frame of the drill. The breast plate is provided with a stem which is inserted into the upper end of the tubular frame and this stem is engaged by the end of a handle projecting from the side of the frame. This handle has a threaded stem which is adapted to be screwed into a corresponding threaded opening in the wall of the frame, and when the handle is screwed home the screw stem thereof impinges on to the stem of the breast plate thus clamping it firmly in place. The handle serves to fasten the breast plate, and also provides a holding handle for steadying or supporting the drill when operating in a corner or against the angle of a wall. The plate may be secured in any desirable position, with universal adjustablity; for the plate may be adjusted both longitudinally and radially, so that by clamping the plate in a position parallel to the handle, as shown in drawing, the tool may be used against the breast and by clamping the plate in a position radially transverse to handle, the tool may be held directly against a wall for operation.

The novel features of the invention are more fully described in the following specification and claims and illustrated in the accompanying drawing which represents a sectional side elevation of a drill embodying this invention.

In this drawing the latter *a* designates a tubular frame which can be perforated as shown or of suitable skeleton work. The shaft *b* is rotatable in the frame and carries a chuck at its lower end whereby a tool can be connected to the shaft. On the shaft is a rotating member or gear *c* having feather connection with the shaft. This gear is engaged by a gear *d* on shaft carrying crank arm *f*. The rotating member or gear *c* carries a latch *g* normally engaging the shaft *b* by means of the stop depressions *h*. When the latch *g* is pressed clear it uncouples the shaft and the latter can be slid up or down and then set by releasing the latch.

The foregoing is a description of the rotating mechanism of the drill which is not claimed in the present application.

The upper part of the tubular frame carries a breast plate *i* which has a stem *j* projecting into the tubular frame. A handle *k* having a screw stem *m* is shown screwed into the wall of the frame. The stem of the breast plate projects longitudinally into the top of the tubular frame, while the holding handle *k* is threaded transversely into the frame, hence when the handle is screwed into place the stem thereof coacts with the stem of the breast plate and clamps the said plate in a fixed position on top of the frame. The handle thus serves a double purpose, first to clamp the breast plate in fixed relation to the frame, second to serve as a grip for steadying the tool when in operation.

Although the breast plate and the handle is shown applied to an extension drill, it will be readily seen that these parts with slight modifications could be connected to any form of breast drill.

It will be obvious that a breast plate combined with a handle of the kind described could be applied to a number of different tools it being within the scope of this invention to claim the device broadly and to whatever use or tool it may be applied.

I claim:

1. A breast drill comprising a tubular frame, a breast plate having a stem projecting into the frame, a handle having a threaded stem inserted into the frame and adapted to engage the stem of the breast plate.

2. A breast drill comprising a tubular frame, a breast plate having a stem projecting longitudinally into the upper portion of the frame, a handle provided with a threaded stem inserted transversely into the frame and adapted to engage the stem of the breast plate.

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

JOSEPH H. RUSBY.

Witnesses:
WILLIAM MILLER,
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