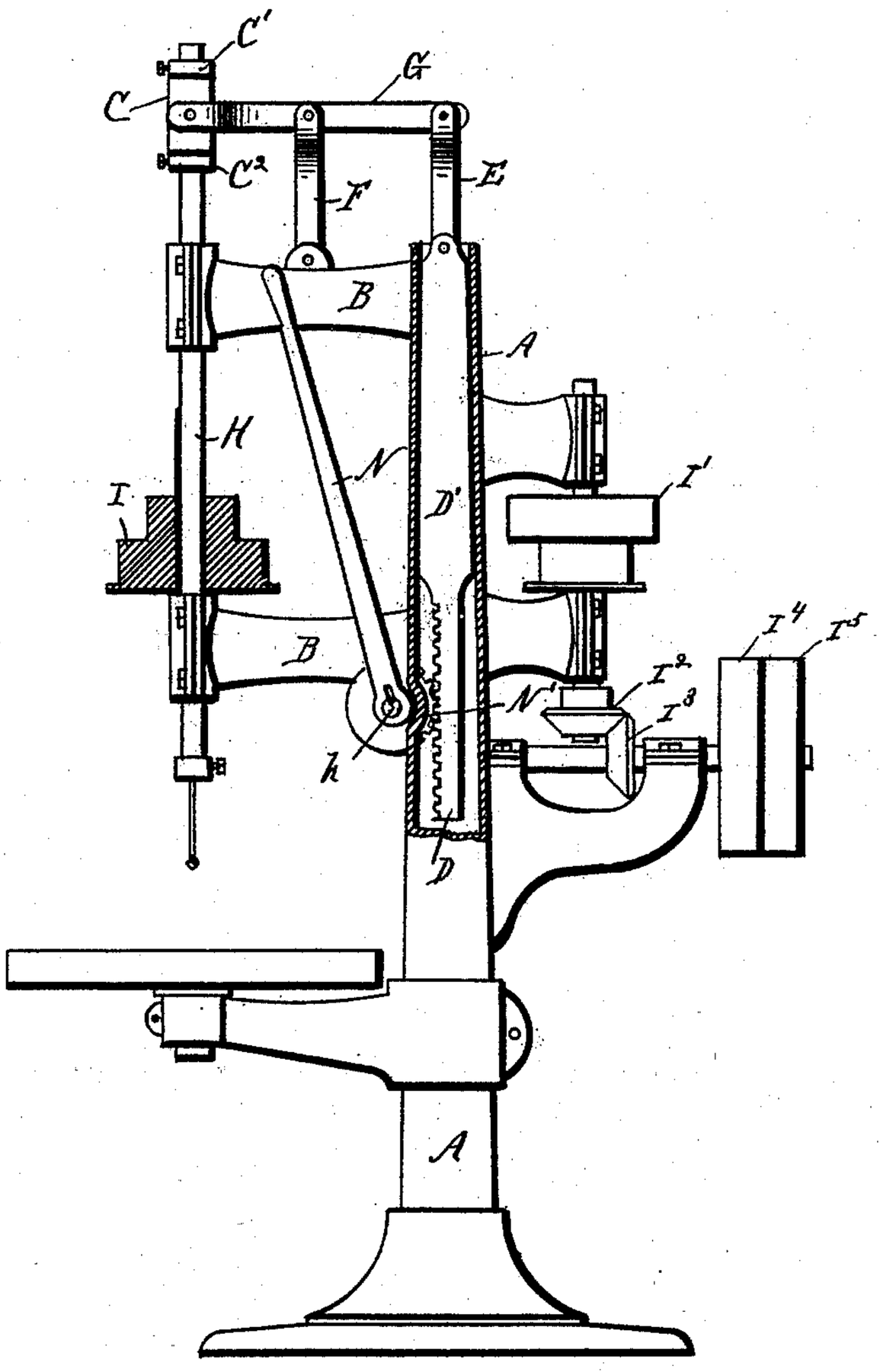
(No Model.)

H. H. FULLER.

DRILL PRESS.

No. 505,517. Patented Sept. 26, 1893.



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UNITED STATES PATENT OFFICE.

HIRAM H. FULLER, OF MEADVILLE, PENNSYLVANIA.

DRILL-PRESS.

SPECIFICATION forming part of Letters Patent No. 505,517, dated September 26, 1893.

Application filed August 17, 1892. Serial No. 443,336. (No model.)

To all whom it may concern:

Be it known that I, HIRAM H. FULLER, a citizen of the United States, residing at Meadville, in the county of Crawford and State of Pennsylvania, 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 drill presses, and consists in certain improvements in the construction of the same, as will be hereinafter fully set forth and pointed out in the claims.

The invention is illustrated in the accompanying drawing, which shows a side elevation of a drill press partly in section and having my improvements embodied therein.

The object of my invention is to provide a drill press with a feeding mechanism, of strong construction, the lever of which being so journaled and placed that it can be easily manipulated.

The construction and operation of my device are as follows:

A, is the main post or hollow column of the machine; B B, the arms in which is journaled the drill spindle H; I, the drive pulley through which said drill spindle is feathered; I′, I^2, I^3, I^4 and I^5, the pulleys and gears forming the driving mechanism.

F, is a pivoted fulcrum.

G, is a lever pivoted to the fulcrum, F, and having one end pivoted to the collar or swivel, C, and the opposite end pivoted to the link, E. The collar or swivel, C, is journaled to the spindle, H, and is held in position by the collars, C′ and C^2.

D′ is a sliding bar, placed inside the column, A, and is connected at its upper end with the lever, G, by the link, E.

D is a rack at the lower end of the bar, D′.

N′ is a pinion engaging the rack, D, and keyed to the shaft, *h*.

N is a hand lever also, keyed at one end to the shaft, *h*.

The fulcrum, F, should be so placed in the lever, G, that the weights depending from its ends will be balanced:

When the operator desires to feed the drill, he grasps the handle end of the lever, N, and pulls it down. This turns the pinion, N′, which acts upon the rack, D, and lifts the bar, D′, and thereby tilts the lever, G, and gives to the drill spindle, H, the feed movement.

If desired the fulcrum, F, may be attached to the top of the column, and the rack attached to the arms, B B. I prefer, however, the construction shown as the best arrangement of my device.

What I claim as new is—

1. In a drill press, the combination with the drill stem of a lever for moving said stem vertically, a pivoted fulcrum therefor, a vertically moving rack-bar connected to said lever, attached to the frame of the machine, a pinion for moving said rack-bar and means for moving said pinion.

2. In a drill press, the combination with the drill-stem of a lever for moving said stem vertically that is fulcrumed between the said stem and the column, a rack-bar within the column that is connected with the said stem moving lever, a pinion for moving said rack-bar and a hand lever for moving said pinion.

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

HIRAM H. FULLER.

Witnesses:
J. T. STERN,
J. H. BOYERSMITH.