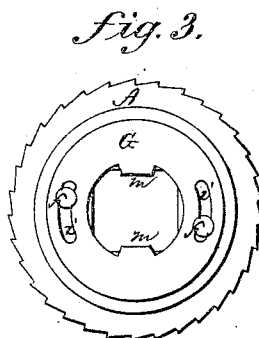
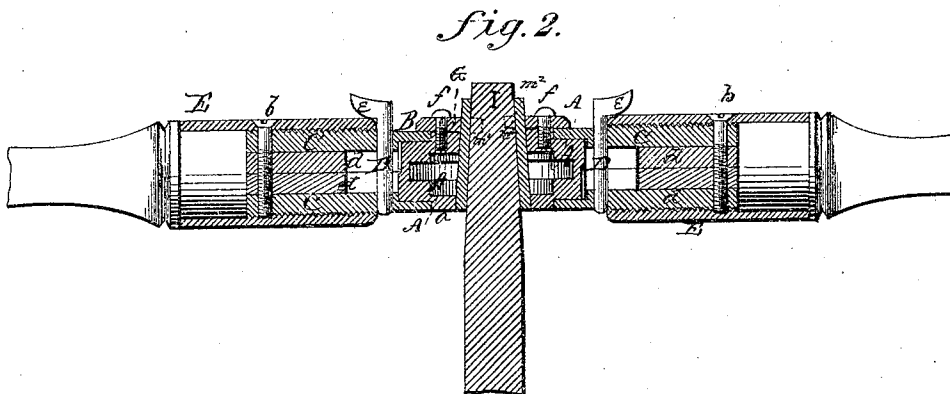
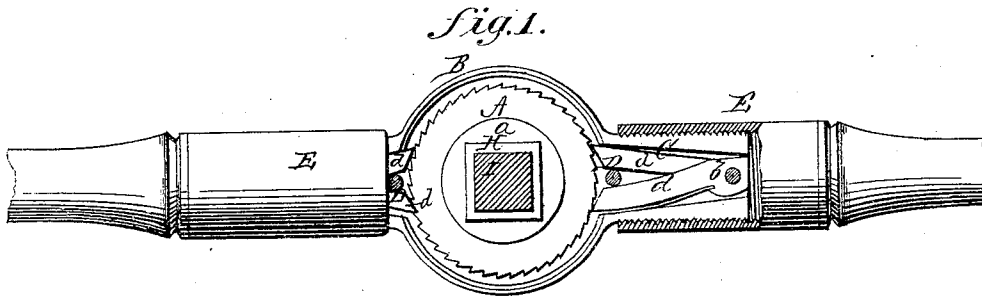


S. W. HEMENWAY.
Auger-Handles.

No. 139,006.

Patented May 20, 1873.



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL W. HEMENWAY, OF LANSING, IOWA.

IMPROVEMENT IN AUGER-HANDLES.

Specification forming part of Letters Patent No. **139,006**, dated May 20, 1873; application filed April 4, 1873.

To all whom it may concern:

Be it known that I, SAMUEL W. HEMENWAY, of Lansing, in the county of Allamakee and State of Iowa, have invented a certain new and useful Improvement in Auger-Handles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of an auger-handle or ratchet-drill, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view, partly in section, of my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a plan view, and Fig. 4 a side view, of a double-ratchet wheel used in the same.

A represents a double-ratchet wheel, or a ratchet-wheel having two sets of teeth, one to the right and the other to the left, and provided with a hub, *a*, projecting on both sides, as shown in Fig. 4. This wheel is placed within a circular casing, B, provided with tubular projections or sockets C C, one on each side. The casing B, with its sockets C C, is divided longitudinally in two equal parts, and the two parts fastened together by a screw, *b*, near the outer end of each socket C. The screws *b b* pivot each two spring-pawls, *d d*, within each socket, which pawls engage with the two sets of teeth on the ratchet-wheel A, and work in opposite directions. Between the inner or loose ends of each pair of pawls is a cam-pin, D, with a wing or ear, *e*, on its outer end. By turning these cam-pins to a certain point, one pawl on each side becomes disengaged from the ratchet-wheel, allowing the handle to be turned to the right; while, by turning the pins to another point, the other pawls become disengaged, and the handle may be turned to the left. At another point all the pawls become disengaged, and at still another all the pawls may be made to engage with the ratchet-wheel. On the outside of the casing B will

be suitable marks to indicate the various points, so that by placing the wings or ears *e e* opposite either the desired effect will result. E E represent the handles screwed on the sockets C C. On one side of the casing B an annular plate, G, is secured to the hub *a* of the ratchet-wheel by means of screws *f f* passing through slots *i i* in the plate into the hub. This plate is provided with inward-projecting lips *m m*, which, when the plate is turned, enter corresponding notches made in a square socket, H, passed through the hub, and lock the same. These lips also enter notches *m'* in the auger-bit I, locking the same also in place.

With a handle of this construction an auger may be worked in a corner or between two posts, or in any place where a common handle cannot be turned clear around, and allows the motion to be reversed, so as to turn the auger backward, and also to lock it, if necessary; also, with a short socket-wrench, it can be used to put on and take off nuts in places where a common socket or other wrench could not be used.

When used for boring in a corner, one of the handles is to be removed.

The socket H is made to come out, so that others for smaller or larger augers may be inserted, thus making the one handle answer for all sized augers, for a ratchet-drill attachment, or for a socket-wrench.

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

1. The combination of the double-ratchet wheel A, spring-pawls *d d*, and cam-pins D D, constructed as described, and arranged within the bisected casing B C, substantially as and for the purposes herein set forth.

2. The slotted annular plate G, provided with lips *m m*, used in combination with the ratchet-wheel A, for fastening the socket H to the same, substantially as herein set forth.

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

SAMUEL W. HEMENWAY.

Witnesses:

R. P. SPENCER,
ROBT. ANGELL.