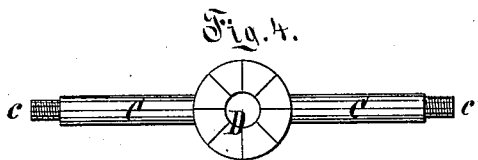
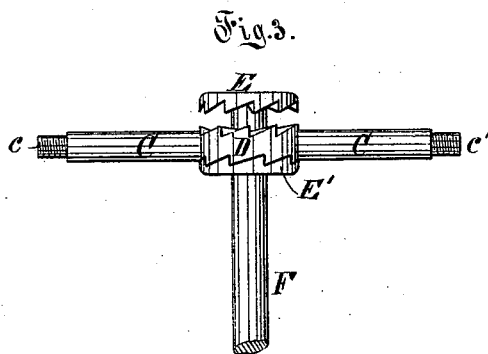
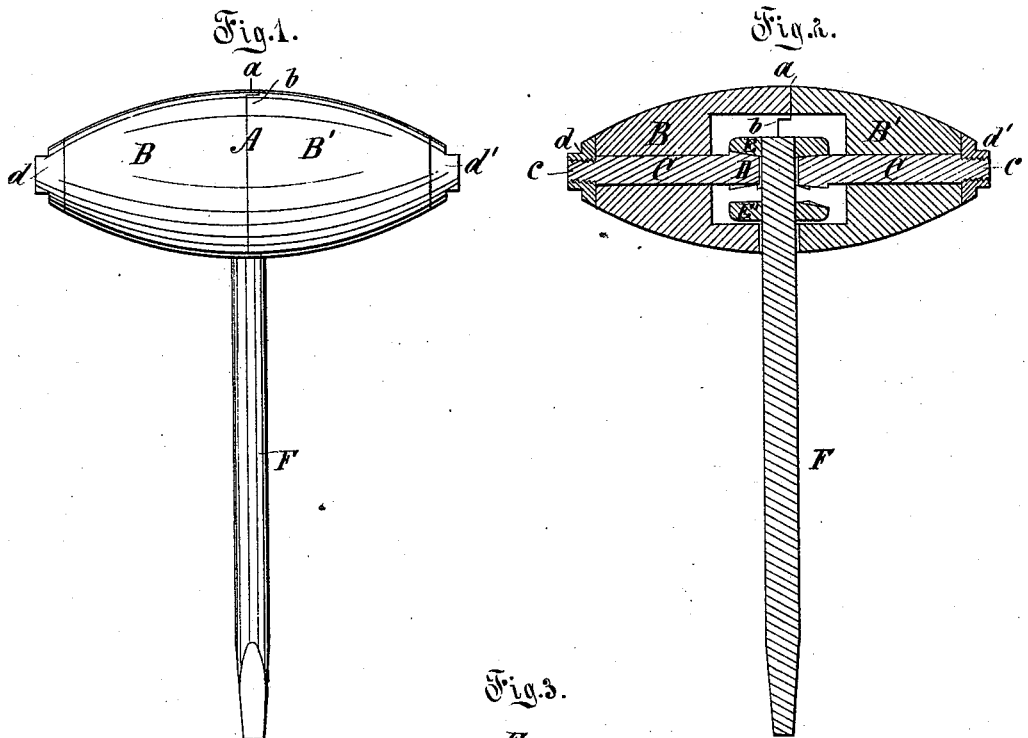


J. D. W. LOVETT & C. D. W. GIBSON.  
Auger-Handle.

No. 207,667.

Patented Sept. 3, 1878.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JAMES D'W. LOVETT, OF BOSTON, MASSACHUSETTS, AND CHARLES D'W. GIBSON, OF NEW YORK, N. Y.

## IMPROVEMENT IN AUGER-HANDLES.

Specification forming part of Letters Patent No. 207,667, dated September 3, 1878; application filed June 14, 1878.

### *To all whom it may concern:*

Be it known that we, JAMES D'W. LOVETT, of Boston, Massachusetts, and CHARLES D'W. GIBSON, of the city of New York, State of New York, are the joint inventors of an Improvement in Handles for Operating the Cutting-Shafts of Augers, Gimlets, &c., as set forth in the following specification, reference being had to the accompanying drawings, forming part thereof, in which—

Figure 1 represents a side view of our improved handle for operating the cutting-shafts of augers, &c. Fig. 2 is a cross-section of the same. Fig. 3 is a side view of the ratchet-wheels, detent, or "detent-wheel," as we call it, and the arms, both detent and arms being made in one piece; and Fig. 4 shows a top view of the upper ratchet-wheel and the said arms.

Our invention relates to an improvement in handles for operating the cutting-shafts of augers, gimlets, &c., whereby the same may be employed in corners and against side surfaces or obstructions, where a full turn on the auger-handle is impossible, and also for boring over-head, consisting of the combination of the ratchet-wheels and detent-wheel, or double-faced ratchet-wheel acting as a detent, whereby the shaft or cutting-tool is driven or pushed moved without releasing the hold on the handle of the instrument, as is now required by the instruments commonly known as "augers," "gimlets," &c.

In the drawings, A is the handle, formed of the two parts or sections B B', which are fitted together at the center, on the top and bottom, and lap into each other, the lip *a* projecting into the recess *b* at the top and the projections into the recess at the bottom, the latter of which are not shown in the drawings.

B B' are provided with holes, through which passes the arm C. The ends *c c'* of said arm have a screw-thread, on which nuts are placed, whereby the parts B B' are held in their positions, as shown. This arm C is made of one piece with the detent or detent-wheel D, said wheel being double-faced. The said wheel may be made separate from the arm, and then secured thereon by rivets or otherwise. The

arm or piece C, being secured fast to the detent-wheel D, regulates its motion, so that it may be brought either into contact with either ratchet-wheel or held disengaged from both.

The upper and lower ratchet-wheels are securely fastened to the axis of the cutting-shaft F, so as to allow of no motion of the shaft independent of the ratchet-wheels E E', while the said shaft turns freely within the detent-wheel whenever the detent-wheel is disengaged from both the upper and lower ratchet-wheel.

The operation of our invention is as follows:

The cutting-shaft being secured in place, and the parts B B' secured and held on the arm C by means of the nuts at each end, by pressing on the handle A the detent-wheel is pressed down into engagement with the lower ratchet-wheel; then by turning the handle to the right a drive-cut is made. By releasing the pressure and pulling the handle outward a short distance the detent-wheel, on its lower face, is relieved from the lower ratchet-wheel, E, and being held between the upper and lower ratchet-wheel, a turn is made to the left, and then the detent-wheel is pressed again into engagement with the lower ratchet-wheel, and a new drive is made.

When it is desired to withdraw the auger or tool employed, the upper face of the detent-wheel is pulled up or brought into contact with the upper ratchet-wheel, and by turning to the left the cutting-shaft is readily withdrawn from the groove cut.

All these operations are performed by the simple arrangement of bringing either face of the detent-wheel either into contact with the upper or lower ratchet-wheel, or held between the two, disengaged from both, and without, during the entire manipulations and operation, once relieving or removing the grasp upon the handle, in order to obtain a fresh gripe and give a new movement.

Especially adapted for ship-augers, our improvement is capable of saving much labor and time; also, when it is desirable to bore against a side obstruction, where a full turn of the auger-handle cannot be given, by this device a quarter-turn, more or less, accord-

ing to the space allowed, can be given, and the detent released, turned back, and a new drive-cut made.

The principle herein claimed is applicable to corkscrews and other similar instruments, as well as to augers, gimlets, &c.

What we claim, and desire to secure by Letters Patent, is—

1. The combination, for operating a cutting-shaft of augers, &c., of two ratchet-wheels, E E', fixed on the axis, with a double-faced detent or detent-wheel, D, fixed on the arm C between the two said wheels, which wheel D engages with either the upper or lower ratchet-wheel, as desired for either driving or removing the cutting-shaft, substantially as shown, and for the purpose specified.

2. The combination, in a handle for operating the cutting-shaft or axis of augers, &c., of the upper and lower ratchet-wheels, E E', the double-faced detent or detent-wheel D, with the arm C, and cutting-shaft F, all inclosed by the parts B B', substantially as described.

Witness our hands.

JAS. D'W. LOVETT,  
CHARLES D'W. GIBSON.

Witnesses to signature of Jas. D'W. Lovett:

ANN D'WOLF GIBBS,  
JOSEPHINE M. LOVETT.

Witnesses to signature of Charles D'W. Gibson:

RICHD VOSE,  
JUNIUS SCHENCK.