

(No Model.)

S. CARY.
EARTH AUGER.

No. 331,767.

Patented Dec. 8, 1885.

Fig 1.

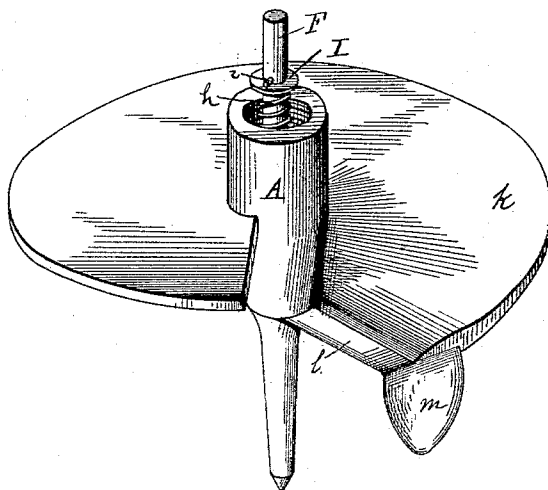
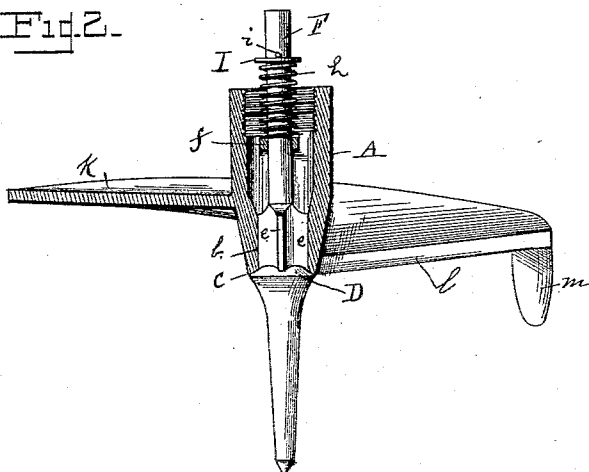


Fig 2.



WITNESSES
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EARTH-AUGER.

SPECIFICATION forming part of Letters Patent No. 331,767, dated December 8, 1885.

Application filed June 26, 1884. Serial No. 136,098. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL CARY, a citizen of the United States, and a resident of the town of Centreville, parish of St. Mary, and State of Louisiana, have invented a certain new and useful Improvement in Earth-Augers; and I do hereby declare the following to be a full, clear, and correct description of the same, reference being had to the annexed drawings, making a part of this specification.

This invention relates to that class of earth-augers in which the point is adapted to serve the double purpose of central guide and air-valve.

It consists in a peculiar construction and arrangement of parts whereby great strength is secured with but little weight of material, as will be hereinafter more fully described and specifically claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved device, and Fig. 2 is a vertical cross-section of same.

A is the auger head or center, having a conically-shaped lower end, which is bored out and recessed so as to form a guideway, *b*, and a valve-seat, *c*, adapted to receive a valve, *D*, having wings *e* and stem *F*, the latter turned to an even diameter, so as to fit and operate in a guide-bar, *f*, that is secured in any desired manner in the auger head or center, and within which it is held at its greatest height (with the valve fitting snugly to its seat) by means of a coil-spring, *h*, washer *I*, and pin *i*, as shown in the drawings. The auger head or center is partially surrounded by a spirally-inclined blade, *k*, having a cutting-edge, *l*, provided with a downwardly-projecting spur, *m*, for trimming the outer edges of the cut made thereby.

The lower end of the valve-stem *F* is made tapering and provided with a sharp point, while the upper part of this projecting portion is gradually enlarged, so as to form an unbroken surface at the line of intersection with the conical portion of the auger-head.

A screw-thread is cut in the upper portion of the auger-head to permit of a pipe being connected therewith, the auger being sunk by means of pipes connected together in the usual manner.

The peculiar construction of the valve and valve-stem, and of the parts with which they are brought in contact, insures for the same great strength with but little weight of material.

In this device the center-point is not as apt to be bent or broken off as in other inventions for the same purpose, the said point or valve being held in a perfectly-steady central line, even when in its outward position. Nor can the auger-head become choked and the apparatus rendered inoperative by the inflow of water or earth, as in earth-augers provided with a loosely-fitting perforated valve sleeve or stem.

The advantage of the construction of my valve with wings *e* over a valve such as is shown in Patent to Coman, No. 168,454, is that it presents less frictional surface to its guideway and prevents accumulations of earthy matter or rust between the same. It therefore requires less attention and care, is not as liable to become inoperative, and will more readily free itself of water or other matter, should the same from any cause find its way into the auger-head.

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

1. The combination, in an earth-auger, of an auger-head having a conically-shaped lower end provided with a recessed valve-seat and an internal guideway, as described, with a winged valve adapted to operate therein, said valve provided with an outwardly-projecting point, the upper portion of which is made to conform to the conical end of the auger-head, substantially as and for the purpose set forth.

2. The combination, in an earth-auger, of an auger-head having a conically-shaped lower end provided with a recessed valve-seat, an internal guideway and guide-bar, and an external spiral blade provided with a cutting-edge and spur, as described, with a winged valve adapted to operate in the aforesaid valve seat and guideway, the said valve having an outwardly-projecting tapering point, the upper portion of which is enlarged to form an unbroken surface at the line of intersection with the auger-head, and a stem adapted to operate in the guide-bar, with means for retaining the same therein, substantially as and for the purpose set forth.

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

SAMUEL CARY.

Witnesses:

J. N. MÜLLER,
P. J. FINNEY.