D. Gore,

Ditch Scoop.

No. 94,303. Patented Aug. 31, 1869.

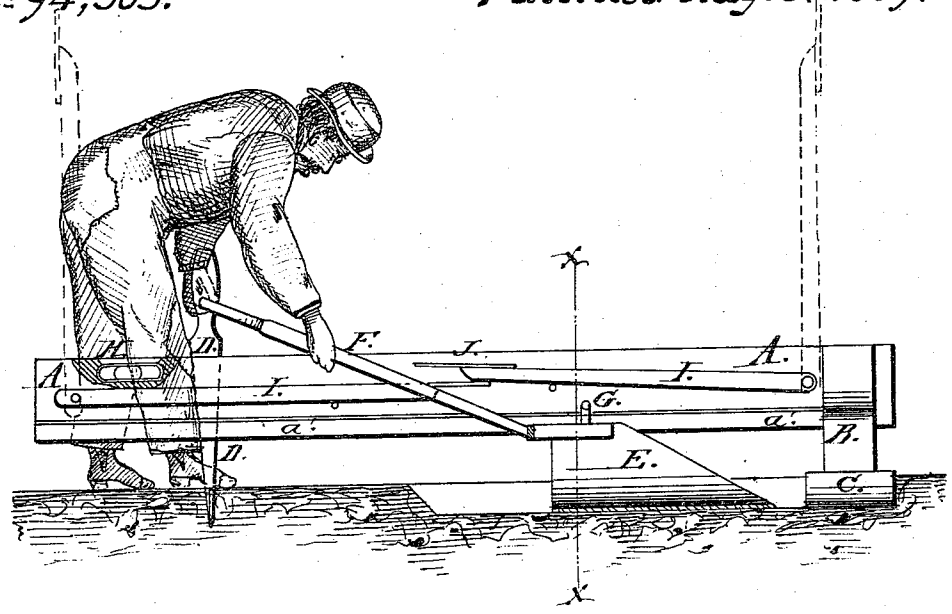


Fig. 2.

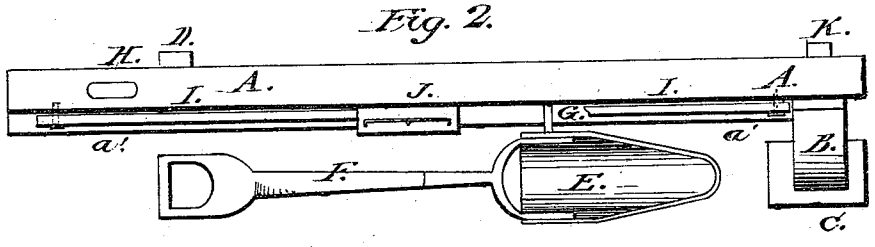
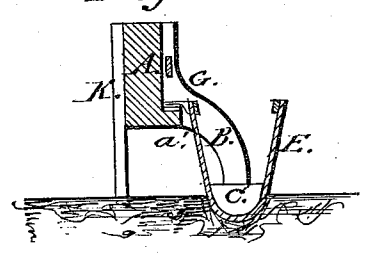


Fig. 3.



Witnesses:
C. Raetlig
John F. Brooks

Inventor:
D. Gore.
per Munn & Co
attorneys.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

United States Patent Office.

DAVID GORE, OF CARLINVILLE, ILLINOIS.

Letters Patent No. 94,303, *dated August* 31, 1869.

IMPROVEMENT IN DITCH-GAUGE SCOOP.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, DAVID GORE, of Carlinville, in the county of Macoupin, and State of Illinois, have invented a new and useful Improvement in Ditch-Gauge and Scoop; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my improved gauge and scoop illustrating its use.

Figure 2 is a top view of the same.

Figure 3 is a cross-section of the same, taken through the line *x x* of fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish a simple and convenient gauge and scoop, for forming a groove in the bottom of open ditches for laying tiles, by means of which the groove may be formed accurately, and of the desired form and size, and at the same time at the desired grade; and

It consists in the construction and combination of the various parts of the apparatus, as hereinafter more fully described.

A is the horizontal bar or beam of the gauge, the rear end of which is supported upon a leg, B, to the lower end of which is attached a block, C, of the same form and size as the tiles.

The leg B should curve outward, as shown in fig. 3, so that the beam A may be at the side of the groove, while the block C rests in said groove.

The forward end of the beam A is supported upon a leg, D, which is made long, and pointed, so that it may be forced into the ground in the bottom of the ditch to hold the beam A steadily and securely in place.

Upon the side of the beam A is formed, or to it is securely attached, a flange or rib, *a'*, extending the entire length of the said beam A.

E is the scoop, which is made of the exact shape and size of the desired groove in the bottom of the ditch, and which I prefer to make about a foot long.

To the upper part of the forward end of the scoop E is attached a handle, F, of any convenient length, and which I prefer to set at an angle of about thirty (30°) degrees.

Upon the upper edge of the scoop E, near its forward end, is formed, or to it is attached, a hook or arm, G, which, when the scoop is being used, rests upon and slides along the flange or rib *a'*, so that it may be impossible for the scoop to make the groove too deep, and so that the said groove may not only be true, but also of a true grade.

In the forward end of the beam A is placed a spirit-level, H, by means of which the gauge is adjusted when moved, so that it may be always at such an inclination that the grade of the groove in the bottom of the ditch may be true throughout its entire length.

If desired, another spirit-level may also be placed in the forward end of the beam A for plumbing the machine.

I are two bars, the lower ends of which are pivoted to the beam A near its ends, so that when not required for use they may be turned down out of the way.

To the upper end of each of the bars I is attached a sight, J, so that the gauge may be used for laying out the ditch, and deciding upon the grade.

When used for this purpose, a third leg, K, should be attached to the rear end of the beam A, so as to hold the instrument steady while being used.

When the instrument is being used in a ditch, the leg K should be detached or turned up out of the way.

It should be observed that when the ditch is narrow, the hook G may be secured to the scoop E, directly over the middle part of its forward end, so as to bring the said scoop partially under the beam A.

In this case the leg B must be so shaped as to bring the block into the line of the groove.

In cases where there is much fall, the scoop E may be used with great advantage without the gauge, being a much better tool for grooving the ditch than any now in use.

The gauge may be made of any desired length; half a rod is suggested as a convenient length.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The gauge A *a'* B C D, constructed and operating substantially as herein shown and described, and for the purpose set forth.

2. The combination of the bars and sights I J with the beam A of the gauge A *a'* B C D, substantially as herein shown and described, and for the purpose set forth.

3. The scoop E F G, constructed and operating in connection with the gauge A *a'* B C D, substantially as herein shown and described, and for the purpose set forth.

DAVID GORE.

Witnesses:

F. H. CHAPMAN,

W. R. WELSH.