

No. 854,916.

PATENTED MAY 28, 1907.

S. E. STONER.
DITCH LEVELING DEVICE.
APPLICATION FILED NOV. 24, 1906.

Fig. 1

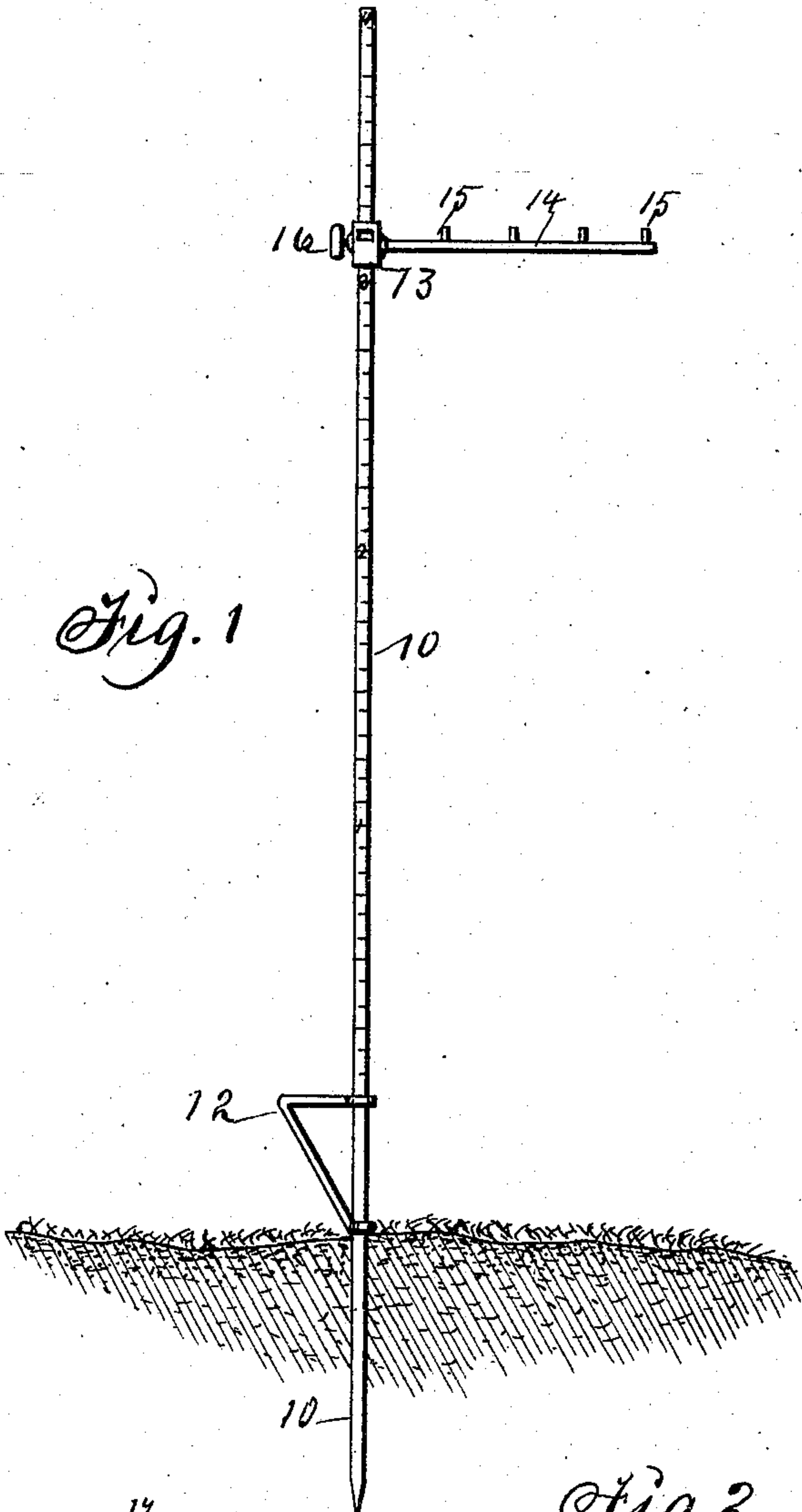
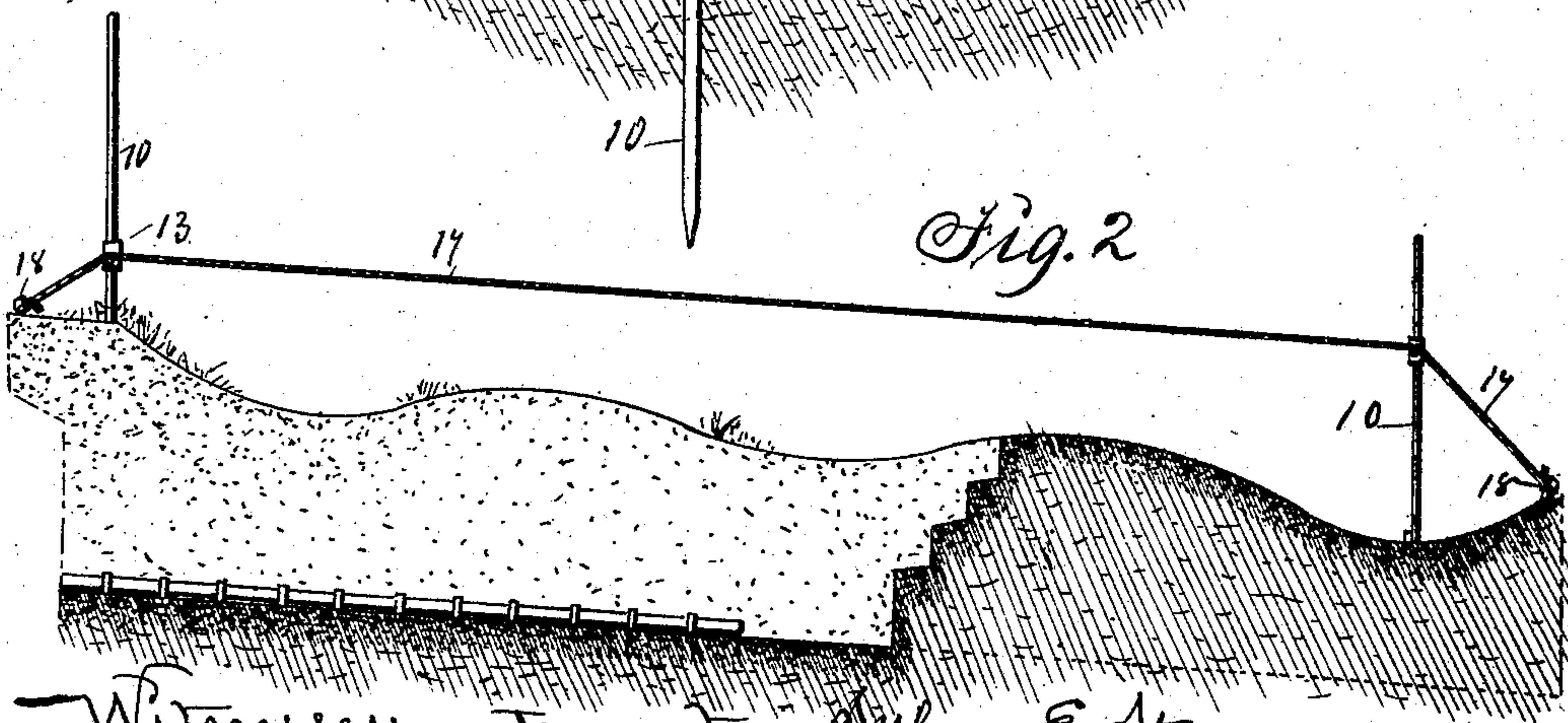


Fig. 2



Witnesses:
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UNITED STATES PATENT OFFICE.

SYLVAN E. STONER, OF OTTOSEN, IOWA.

DITCH-LEVELING DEVICE.

No. 854,916.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed November 24, 1906. Serial No. 345,248.

To all whom it may concern:

Be it known that I, SYLVAN E. STONER, a citizen of the United States, residing at Ottosen, in the county of Humboldt and State of Iowa, have invented a new and useful Ditch-Leveling Device, of which the following is a specification.

My object is to provide an adjustable and portable device specially adapted for stretching and supporting a line on the top of an uneven surface at such an inclination relative to the surface as the bottom of the ditch as such bottom is to be excavated parallel with the stretched line.

Heretofore stakes have been set by surveyors and each stake marked by figures to show how deep the ditch must be at each particular point along the line of fixed stakes. But there has been no definite fixed guide to measure from for telling when the bottom of the ditch has the desired inclination from one stake to another.

My invention consists in the portable standard and adjustable line support hereinafter set forth, pointed out in my claims and illustrated in the accompanying drawing in which.—

Figure 1 shows the standard and adjustable line support combined as required for practical use. Fig. 2 shows my invention in position relative to the inclination that the bottom of a ditch is to have relative to the surface of the ground through which the ditch is extended.

The numeral 10 designates the standard preferably made of gas pipe about seven feet long and pointed at its lower end. A step 12 is fixed to the lower end portion of the standard so the top of the step will extend laterally about eighteen inches above the point of the standard. A scale of inches is fixed on the standard to extend from the top of the step to the top of the standard. A tubular slide 13 is fitted on the standard and provided with an opening, as shown in Fig. 1, so that marks and numerals on the standard can be seen through the opening in the slide. A line holder consisting of a straight bar 14 about one foot long having fixed studs 15 on its top is fixed to the slide to extend horizontally at right angles to the standard 10 and slide 13 and a set screw 16

is seated in the slide for fastening the slide and twine holder to the standard at any point of elevation desired.

It is obvious that by foot pressure upon the step 12 the point of the standard can be readily pressed into the ground as required to retain the standard in an upright position at the side of a ditch as shown in Fig. 2.

By fixing two or more standards in the same straight line parallel to the side of a ditch, or a row of stakes designating where the ditch is to be located, portions of a line 17 may be coiled around the line holder bars 14 and the ends of the line fastened to stakes 18 fixed in the ground so that the line will remain stretched taut from one bar 14 to the other in parallel position with the line of the ditch that is to be made in accordance with marked stakes previously located and fixed in the ground by surveying engineers.

By means of the studs 15 on the line bearer bar 14 the line may be retained at different distances from the standards 10 and the top surface at the side of a ditch. And when a ditch is excavated at the side of a set stake to the depth marked on the stake and the ditch extended toward another marked stake along the line the inclination of the bottom of the ditch can be readily obtained all along from one marked set stake to another and from one fixed standard 10 to another by simply measuring with a rod or rule from the line 17 to the bottom of the ditch so that, regardless of the uneven top surface of the ground the irregular depth of excavation required the bottom of the ditch will be readily made parallel with the stretched line 17 and ready for laying drainage tile therein as shown in Fig. 2.

Having thus set forth the purpose of my invention, its construction and manner of use, the practical operation and advantages thereof will be obvious.

What I claim as new and desire to secure by Letters-Patent, is:—

1. In a ditch leveling device, a standard pointed at its lower end, a step fixed to the lower end portion of the standard, a slide adjustable on the standard, a line holder fixed to the slide and means to fasten the slide to the standard at different points of elevation.

2. A ditch leveling device comprising two standards, a step fixed to each standard, an adjustable slide on each standard and a line holder fixed to each slide and provided with
5 a plurality of studs, means for fastening the slides that carry the line holder to the standards at different points of elevation and a line connected with each line holder, to operate as set forth.

SYLVAN E. STONER.

Witnesses:

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