No. 671,853. Patented Apr. 9, 1901.

A. B. CLAY.

PITCHFORK.

(Application filed May 11, 1900.)

(No Model.)

Fig. 1.

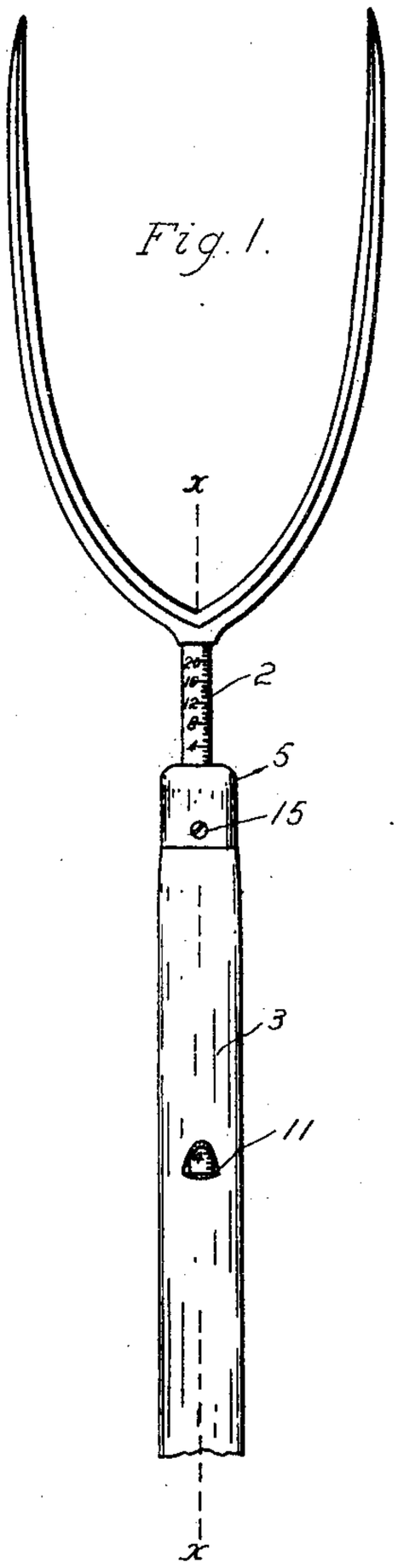

Fig. 2.

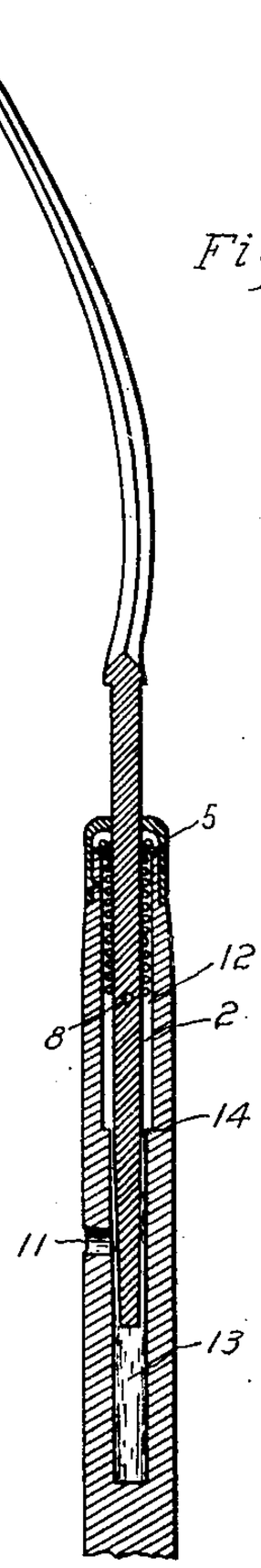

Fig. 3.

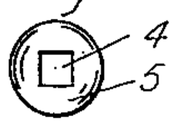

Fig. 4.

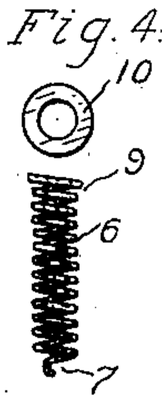

Fig. 5.

Fig. 6.

WITNESSES:

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ALBERT B. CLAY, OF ELMHURST, PENNSYLVANIA.

PITCHFORK.

SPECIFICATION forming part of Letters Patent No. 671,853, dated April 9, 1901.

Application filed May 11, 1900. Serial No. 16,377. (No model.)

To all whom it may concern:

Be it known that I, ALBERT B. CLAY, a citizen of the United States, residing at Elmhurst, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Pitchforks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to pitchforks such as are used for handling hay, straw, or grass when feeding horses and other stock; and the object of the invention is to provide a weighing device in connection with such fork, so that the quantity fed may be weighed and the weight thereof inspected by the party using the same.

To this end my invention consists of the construction, arrangement, and combination of the several parts, as herein specified, and illustrated in the drawings, in which—

Figure 1 is a front view of part of one of my forks when held in the upright position in use. Fig. 2 is a view in cross-section of the same, taken on the line *x x* of Fig. 1. Fig. 3 is a top view of the ferrule, which is a detail of my weighing-fork. Fig. 4 is a top view of the washer used within the ferrule of my fork. Fig. 5 is a detail view of the weighing-spring used in my fork. Fig. 6 is a general view showing my fork in use.

Similar characters of reference denote like and corresponding parts throughout the several views.

Referring to the drawings, 1 designates the metallic part of a pitchfork as ordinarily constructed except the shank 2, which is square in cross-section and provided on its front side with a scale and figures cut into the metal for the purpose of reading the weight. The shank 2 extends downward into the hollowed handle, passing through the square hole 4 of the ferrule 5, and has encircling it within the said hollow handle the coiled spring 6, disposed between the walls of the hollow handle and the shank, the lower end 7 of said spring being hooked through a hole 8 into the shank 2 and an enlarged coil 9 of the said spring impinging on the washer 10, through which the whole spring is bodily inserted, the washer 10 being adapted to rest on the upper annular space on that part of the handle 2 included within the ferrule 5. By these means the fork when held in the upright position, as shown in the views, is suspended and permitted to have a sliding motion within the tubular cavity of the handle 3. A sight 11 is also cut into the handle 3, through which readings may be taken from the lower end of the shank 2, on which a duplicate scale is cut bearing the same relation to the lower limit of the sight 11 as the upper scale has to the upper edge of the ferrule 5. This provision is made so that readings may be taken of the weight, regardless of hanging-down quantities of hay or straw. The upper portion 12 of the hollowed-out part of the handle is larger in caliber than the lower portion 13, the larger caliber extending to 14, so as to permit of the necessary expansion or lengthening of the spring 6 when in the act of weighing. The ferrule 5 may be secured to the handle by means of a screw 15 or by any other suitable means. When the ferrule is loosened, it may be removed upward and all of the parts of the fork separated by withdrawing the shank from the hollow handle, the spring and washer removing with it, and in case the spring should become broken or strained a new one may be thus replaced.

The operation of my device is now readily explained. Taking any fork full of hay or other substance the fork is held into a substantially vertical position, with the sight 11 toward the eye of the user, and is prevented from turning in the handle by the square shank sliding within the fixed thimble or ferrule 5, and the weight of the hay stretching upon the spring 6 the said shank is compressed into the handle a distance corresponding to the weight, as in any ordinary weighing spring-balance, the graduated scale on the shank 2 being so placed as to indicate a correct reading of the weight. In this way the person using the fork is enabled at a glance to note the exact weight which the fork is holding.

I do not wish to be confined to the exact construction shown in the drawings, as it is evident that many of the details may be varied without departing from the spirit of the invention.

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

In a pitchfork the combination with a suit-

able hollowed handle of a weighing-fork secured therein, the said weighing-fork comprising a suitable spring surrounding the shank thereof and suspending the same in the hollowed recess of the handle by means of connecting one end of said spring to a hole in the shank and the other end resting on a washer through which the shank of the fork passes and through which the upper end of the spring is too large to be drawn; the said washer and fork secured in their positions by means of a ferrule 5 secured to the hollow handle, substantially as specified.

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

ALBERT B. CLAY.

Witnesses:
JACOB K. JOHLER,
JACOB DEATRICK.