

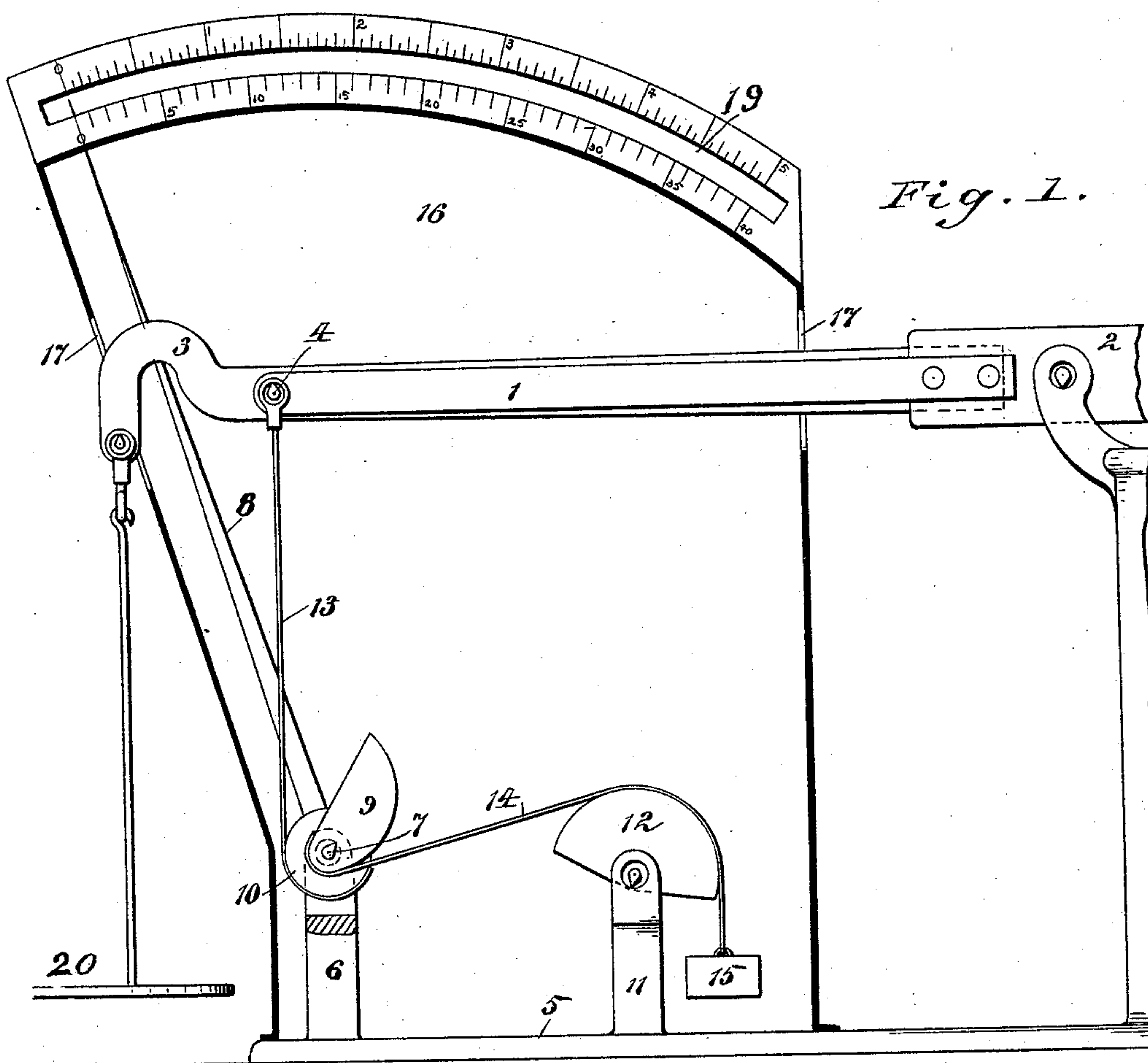
(No Model.)

H. C. KEELER.

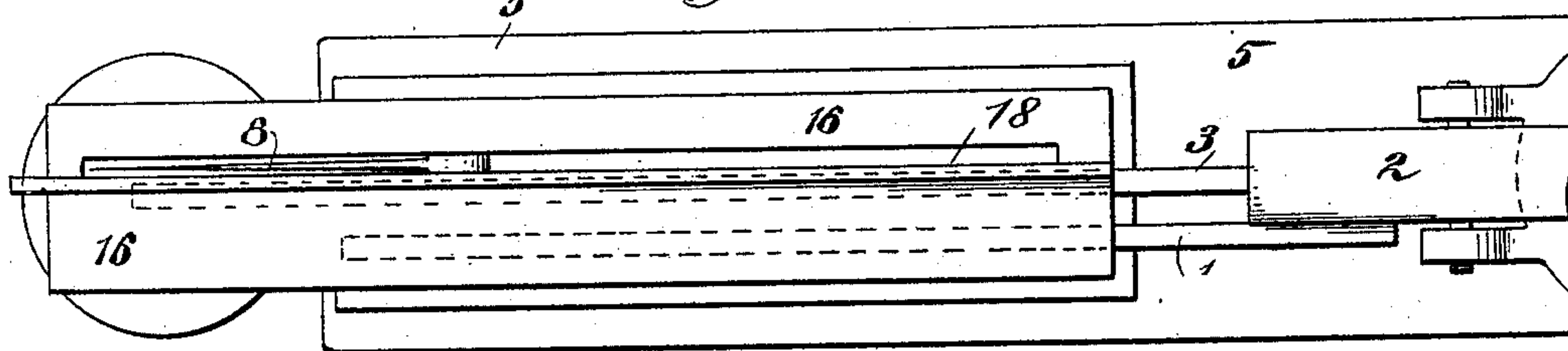
INDICATING ATTACHMENT FOR WEIGHING SCALES.

No. 362,748.

Patented May 10, 1887.



5 *Fig. 2.*



WITNESSES :

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UNITED STATES PATENT OFFICE.

HENRY C. KEELER, OF OGDEN, UTAH TERRITORY.

INDICATING ATTACHMENT FOR WEIGHING-SCALES.

SPECIFICATION forming part of Letters Patent No. 362,748, dated May 10, 1887.

Application filed November 4, 1886. Serial No. 217,985. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. KEELER, of Ogden, in the county of Weber, Utah Territory, have invented a new and Improved Indicating Attachment for Scales, of which the following is a full, clear, and exact description.

My invention relates to an indicating attachment for scales, and has for its object to not only correctly designate the weight of articles placed upon said scales, but also to provide a means whereby the pointer will not be affected by multiplying weights upon the beam, and wherein, also, the said pointer will be free from vibration when indicating the weight.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in both views.

Figure 1 illustrates a central vertical section through the casing of my attachment applied to a scale, and Fig. 2 is a plan view thereof.

In the construction of my indicator for scales, I attach an independent beam, 1, to the outer end of the ordinary beam-carrier 2 in such a manner as to extend parallel with one side of the usual weight-carrying beam 3, nearly the length thereof, and provide the said independent beam 1 with a knife-edge pivot-pin, 4, at its free end.

Beneath the beams 1 and 3, and nearly in the same vertical plane with the aforesaid pivot-pin 4, I attach to the scale-platform 5 a vertical standard, 6, in the arms of which I journal the shaft 7, adapted to have secured thereon an indicating pointer or finger, 8, near one end, and a cam-faced lever, 9, at the other, attached at its lower end to incline at an angle to said shaft 7 inward and upward, while between the said indicating-finger 8 and lever 9 a pulley, 10, is centrally fitted to the shaft 7. In line with the aforesaid standard 6, and a distance therefrom toward the body of the scale, I employ another similar standard, 11, and pivot therein, upon knife-edges, a rocker, 12. I now attach to the under side of the pulley 10 a strap or chain, 13, and carry the other end thereof, provided with a metallic ring, to a connection with the pivot-pin 4 upon the independent beam 1. A strap or chain, 14, is

also attached to the under portion of the cam-faced lever 9, which strap is then made to bear upon the upper curved surface of the rocker 12 and remain thereon through the operation of a weight, 15, at its free end.

The parts, as above described, are adapted to be covered by a casing, 16, provided with slots 17 therein for the vertical play of the beams 1 and 3, and an upper slot, 18, through which the finger 8 projects. Above and at the side of said slot is arranged a plate, 19, having the usual gradations stamped or printed thereon, and by means of which the finger 8 indicates the various weights.

The casing 16 is so shaped as to permit the weight-pan 20 to swing outside thereof. It will be observed that as the scale-beam is first raised the preponderance of leverage is in favor of the connection 13 between the pulley 10 and the independent beam 1, thereby admitting a very delicate action of the finger 8; but as the cam-lever 9 is made to bear against weighted strap 14, the leverage is made to oppose the said connection 13, consequently rendering the finger, as it indicates the weight, steady and freer from vibration, thus permitting the use of a light weight, 15.

The auxiliary beam 1 is designed to operate the attachments only, and is made independent of the scale-beam proper, in order that the finger 8 will not be affected by the springing of the scale-beam proper when the multiplying weights are placed thereon.

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

1. The combination, with a scale-beam, a weight-actuated shaft, and a connection between said shaft and beam, of a cam-faced lever upon which the weight acts, substantially as shown and described, and for the purpose herein set forth.

2. The combination, with the weight-carrying beam 3, the parallel independent beam 1, and pointer 8, of the pulley 10, the connecting-strap 13, the cam-faced lever 9, weighted strap 14, and rocker 12, all arranged substantially as shown and described, and for the purpose herein set forth.

HENRY C. KEELER.

Witnesses:

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