(No Model.) 2 Sheets—Sheet 1.

L. G. CLAWSON.

WAGON SCALES.

No. 445,269. Patented Jan. 27, 1891.

Fig. 1.

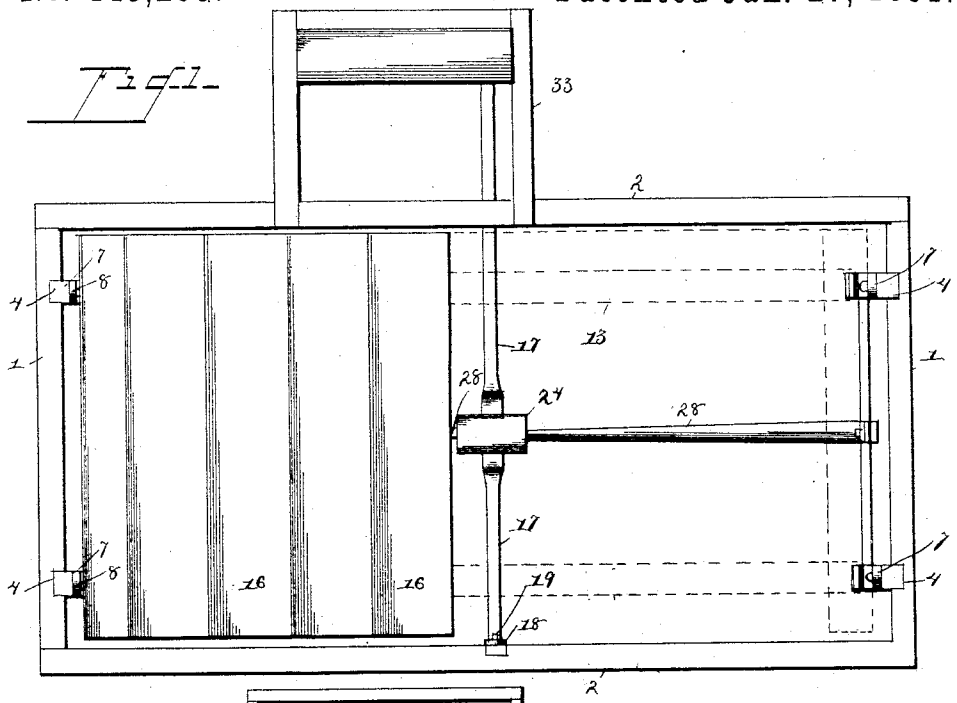


Fig. 2.

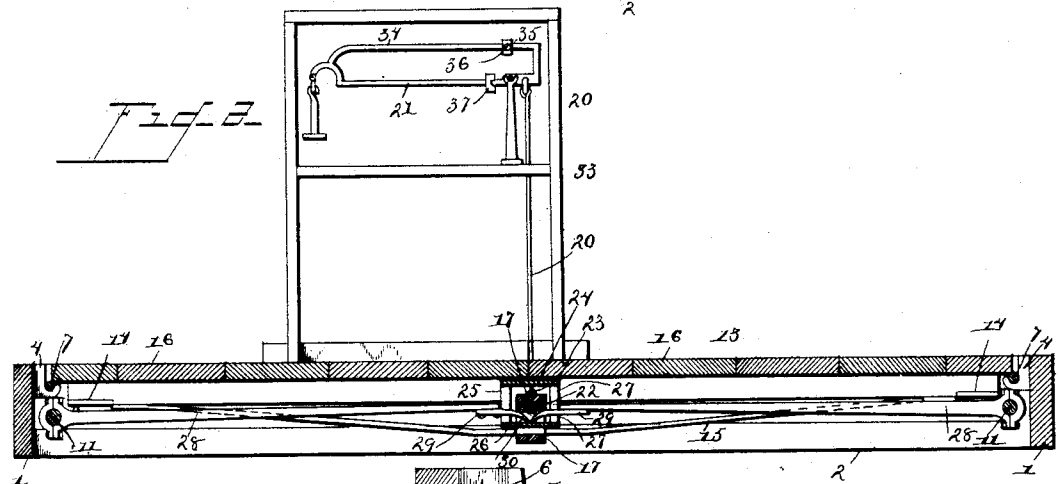
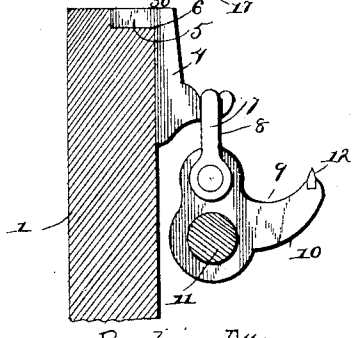


Fig. 5.



Witnesses

Geo. E. Frech

Wm. Bagger.

Inventor

Linus G. Clawson

By his Attorneys,

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

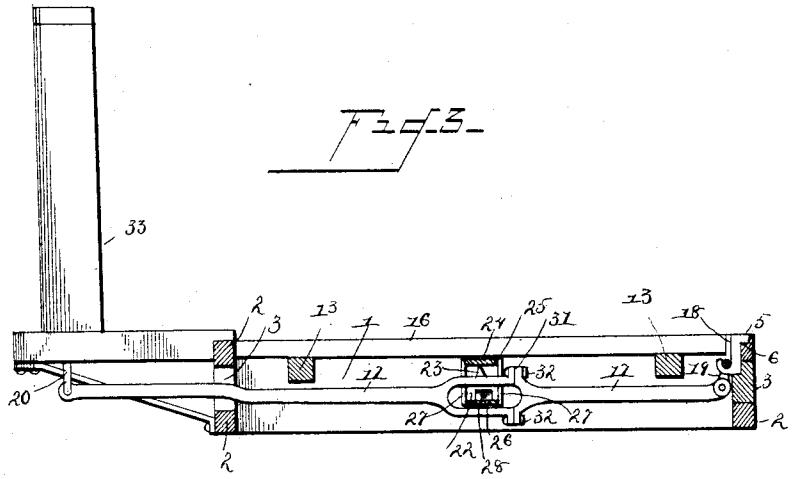


Fig. 4.

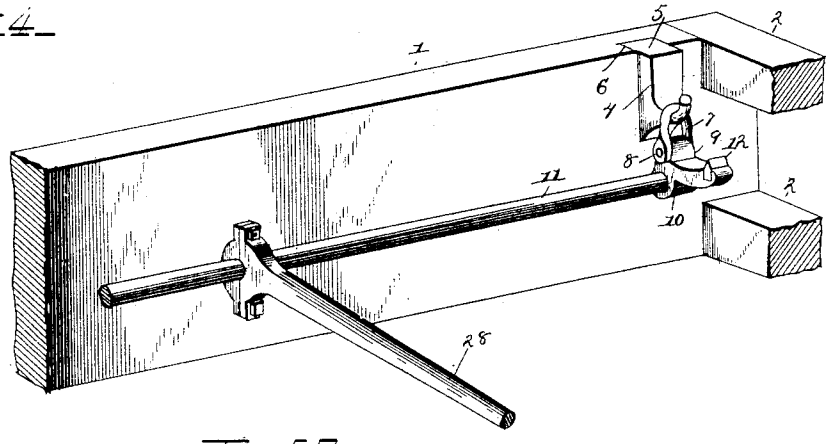
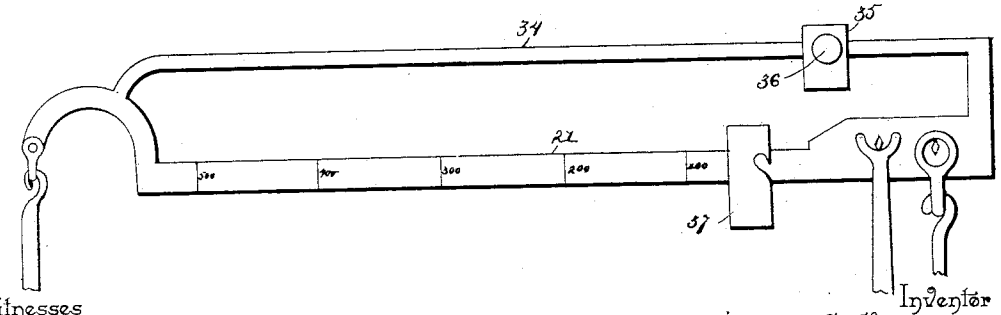


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

LINUS G. CLAWSON, OF PLEASANT HILL, MISSOURI, ASSIGNOR OF ONE-HALF TO E. G. WHEELER, OF SAME PLACE.

WAGON-SCALES.

SPECIFICATION forming part of Letters Patent No. 445,269, dated January 27, 1891.

Application filed August 7, 1890. Serial No. 361,315. (No model.)

To all whom it may concern:

Be it known that I, LINUS G. CLAWSON, a citizen of the United States, residing at Pleasant Hill, in the county of Cass and State of Missouri, have invented a new and useful Wagon-Scales, of which the following is a specification.

This invention relates to wagon-scales; and it has for its object to construct a device of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency, which shall be light and inexpensive and which shall be so constructed as to avoid danger of freezing.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a plan view of a wagon-scales embodying my improvements, the floor of the platform and a portion of the platform-frame having been removed to show the construction. Fig. 2 is a longitudinal sectional view taken on the line 2 2 in Fig. 1. Fig. 3 is a transverse sectional view taken on the line 3 3 in Fig. 1. Fig. 4 is a detail view, on a larger scale, of one of the rock-shafts and its bearings. Fig. 5 is a vertical sectional view taken through one of the bearings of the rock-shafts. Fig. 6 is a detail view of the scale-beam, showing the adjusting-weight.

Like numerals of reference indicate like parts in all the figures.

One object of my invention is to arrange the entire frame and operating mechanism above the ground for the purpose of preventing freezing, which is usually caused by the operating mechanism being located in a pit below the surface of the ground, thereby allowing water to accumulate and freeze. To this end the frame is composed of the end sills 1 1 and side pieces 2 2, of which latter there are two on each side of the frame, the upper and lower side beams being spaced by suitably-located blocks 3. Upon the inner side of the end sills 1 are mounted the supporting-hooks 4, which are provided at their upper edges with flanges 5, resting in notches or recesses 6 in the upper edges of the end sills. Upon these hooks 4 are mounted the links or clevises 7, having eyes 8, that form bearings for the knife-edges 9, which extend laterally from the eccentric heads 10, which are mounted upon the edge of the rock-shafts 11, of which there are two, one at each end of the frame. The eccentric heads 10 are provided with knife-edges 12, supporting the platform-frame 13, which is provided on its under side with bearing-blades 14 for the said knife-edges. Said platform-frame is also provided on its under side with one or more truss-rods 15, which may be either round or square. The flooring 16 upon the platform-frame is preferably made of movable sections, which may be readily removed to afford access to the interior of the frame for the purpose of cleaning or repairing when necessary.

17 designates a lever, one end of which is provided with a link or clevis 19, by means of which it is mounted upon a supporting-hook 18, which is similar to the hooks 4, and which is mounted upon the outer top side bar of the frame centrally in the latter. Said lever extends across the frame between the two inner side bars, and is connected by a rod 20 with the scale-beam 21. The lever 17 is provided at a point which is central in the frame with an eye or opening 22, and it has on its upper side a sharp or pointed projection 23, which affords a bearing for the top plate 24 of a frame or stirrup 25, which is composed of the said top plate, the bottom plate 26, which latter extends transversely through the slot 22, and the connecting-rods 27. This frame, or its bottom plate 26, serves to support the meeting ends of the arms or levers 28, which extend from the rock-shafts 11 to the center of the frame. By the use of this frame or stirrup the parts may be very nicely balanced, the ends of the bars or levers 28 being provided with bearing-plates 29, having downturned edges 30, which rest upon the upper side of the bottom plate 26 of the supporting-stirrup. For convenience in the manufacture the lever 17 may be constructed in two separate parts, provided at their meeting ends with flanges 31 for the reception of connecting-bolts 32. By thus constructing the said lever the supporting-stirrup 25 may be very conveniently placed in its operative position.

33 designates the weighing-standard, which

is constructed in the usual manner at the inner side of the frame, and in which the scale-beam 21 is mounted in the usual manner. Said scale-beam is in the nature of a frame having a top bar 34, which extends on both sides of the pivotal point.

35 designates a weight, which is mounted to slide upon the top bar 34 of the scale-beam, and this weight, as will be seen, may be moved to either side of the pivotal point of said scale-beam, thus enabling the scales to be very easily and quickly balanced. The weight 35 has a set-screw 36, by means of which it may be retained at any desired position. This weight, as will be seen, will be useful not only for balancing the scales, but also for counterbalancing the weight of empty wagons and the like. The scale-beam proper is also provided in the usual manner with a sliding weight 37 and with a device for supporting the usual balance-weights.

The operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains from the foregoing description, taken in connection with the drawings hereto annexed. When weight is placed upon the platform, the rock-shafts 11 are slightly oscillated in their bearings, owing to the platform being supported upon the eccentric or cam-shaped heads of said rock-shafts. The arms or levers 28 are thus caused to press downwardly upon the stirrup 25, thus depressing the free end of the lever 17, which is connected with and serves to actuate the scale-beam.

It is intended to make these scales of a capacity not usually exceeding four or five thousand pounds, for the reason that a greater capacity is not usually demanded for the use of farms, for which purpose these scales are especially intended, and it is obvious that scales of a reasonably limited capacity may be constructed more cheaply than larger ones. At the same time I desire it to be understood that I do not limit myself in this respect.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a wagon-scales, the combination of the frame, the rock-shafts mounted at the ends of the frame and having eccentric or cam-shaped heads supporting the platform, a transverse lever pivotally connected to one side piece of the frame and having its free end connected with the scale-beam, and arms attached to the rock-shafts and having their free ends supported by the said transverse lever, substantially as set forth.

2. The combination of the rock-shafts having eccentric or cam-shaped heads, the lever arranged transversely in the frame, provided with a central transverse perforation and a sharp-edged bearing-point 23 and having its free end connected with the scale-beam, a supporting-stirrup mounted upon the bearing 23 of said lever, and having a cross-bar extending through the transverse perforation in the latter, and arms extending from the rock-shafts and having their free ends supported in said stirrup, substantially as and for the purpose set forth.

3. The lever arranged transversely in the frame, provided with a central transverse perforation and having its free end connected with the scale-beam, in combination with a supporting-stirrup having a bearing upon the upper side of said lever and provided with a bottom plate extending through the opening therein, and the rock-shafts having eccentric heads supporting the platform and provided with arms the free ends of which rest in said supporting-stirrup, substantially as set forth.

4. The lever constructed in two parts, provided with flanges at their meeting ends, at which point a transverse perforation is formed, in combination with the supporting-stirrup adapted to be mounted in said perforation, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

LINUS G. CLAWSON.

Witnesses:
IRVING MILLER,
JAMES T. WHITE.