No. 756,578. PATENTED APR. 5, 1904.

J. E. CAMP.

PORTABLE GRAIN DUMP.

APPLICATION FILED MAY 4, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

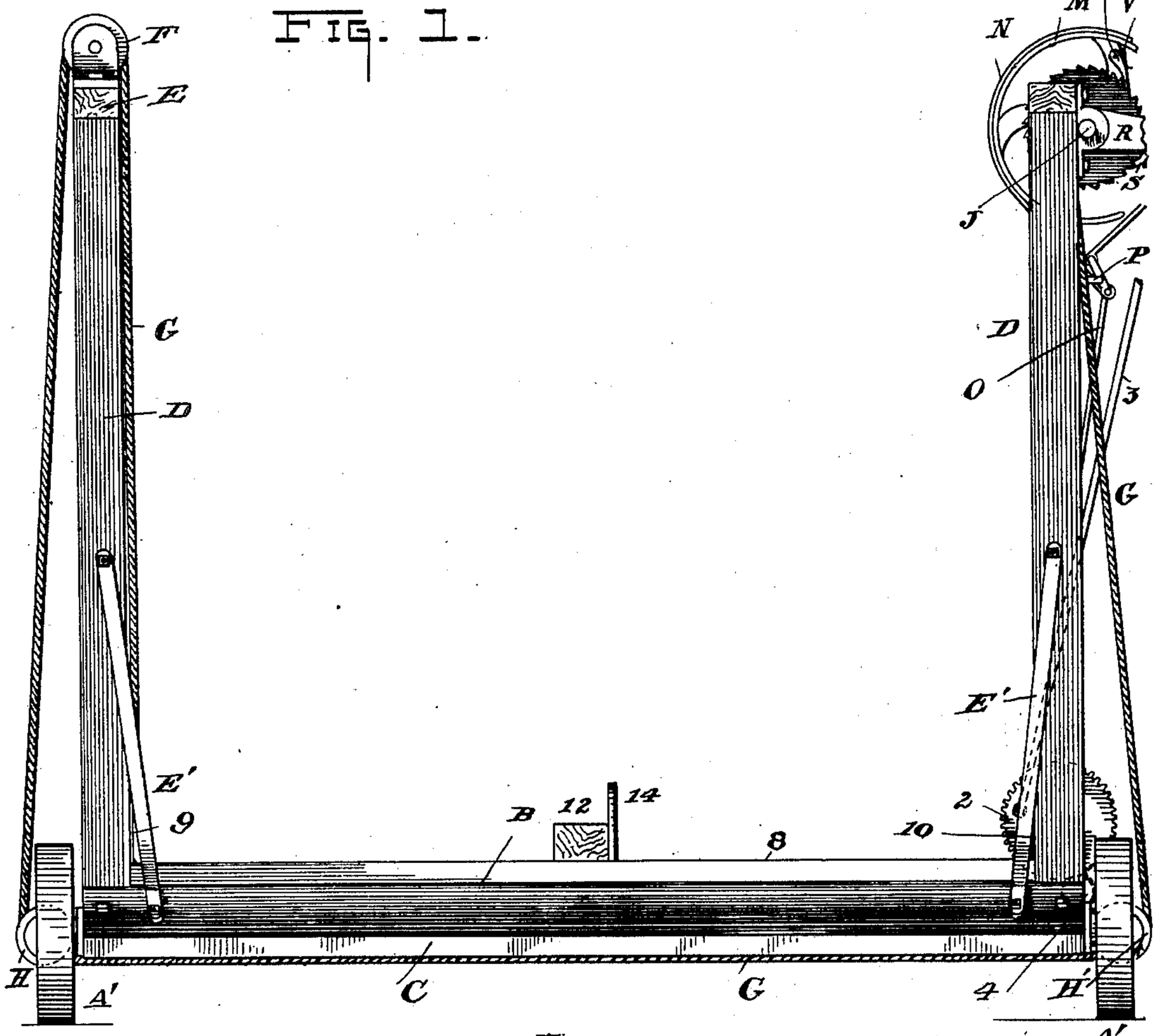
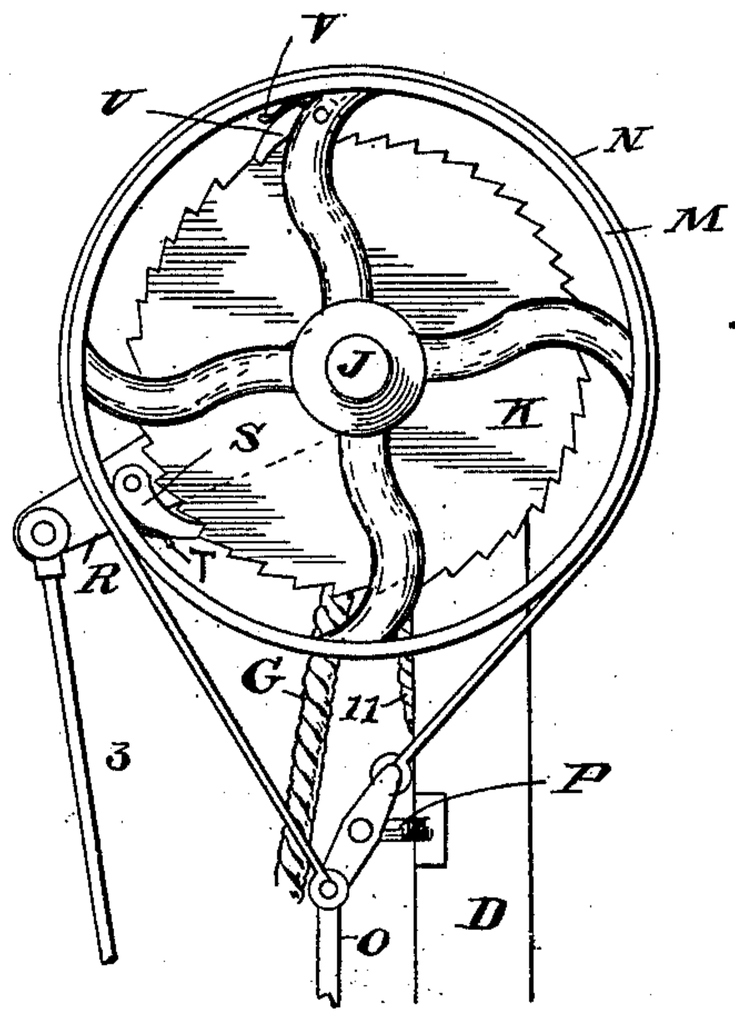


Fig. 2.



WITNESSES

Mae Davis.

E. G. Siggers

INVENTOR

Joseph E. Camp,

By L. F. Thurlow,

ATT'Y.

No. 756,578. PATENTED APR. 5, 1904.

J. E. CAMP.

PORTABLE GRAIN DUMP.

APPLICATION FILED MAY 4, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

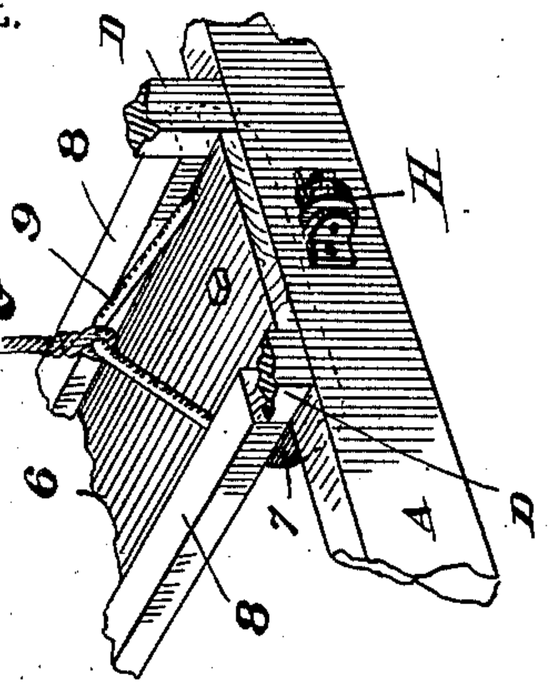


FIG. 5.

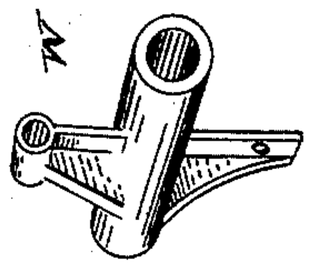


FIG. 4

FIG. 3.

WITNESSES

Mae Davis

E. J. Abbott

INVENTOR

Joseph E. Camp.

By L. M. Thurlow,

Att'y.

No. 756,578. Patented April 5, 1904.

UNITED STATES PATENT OFFICE.

JOSEPH E. CAMP, OF WASHINGTON, ILLINOIS.

PORTABLE GRAIN-DUMP.

SPECIFICATION forming part of Letters Patent No. 756,578, dated April 5, 1904.

Application filed May 4, 1903. Serial No. 155,516. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH E. CAMP, a citizen of the United States, residing at Washington, in the county of Tazewell and State of Illinois, have invented certain new and useful Improvements in Portable Grain-Dumps; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention pertains to an improved portable grain-dump of that class on which wagons are driven and raised at one end to deliver their loads.

The object of the present invention is to furnish a simple, light, and durable machine which can be easily transported from one place to another.

A further object is to provide carrying-wheels for a grain-dump by which it may be more readily moved about.

Another object is to provide a tongue for the dump for assisting in transportation, and, furthermore, an object also is to provide a device for locking the wagon against movement while on the dump, all of which will be clearly pointed out in the following description and in the accompanying claims.

In the drawings presented herewith, which form part of my application, Figure 1 is a rear elevation of the dump. Fig. 2 is a front view in detail of a ratchet mechanism and band-brake device. Fig. 3 is a side elevation of the machine, showing the carrying-wheels resting in an excavated place for allowing the platform of the device to rest firmly upon the ground. Fig. 4 is a perspective view of a casting for carrying certain gear-wheels to be described. Fig. 5 is a perspective view of a portion of the dump, showing a platform on which the forward wheels of the wagon are carried.

A indicates a sill, one of which is placed at each end of the machine and upon which is securely fastened the floor-boards B B, at each side of which are the approaches C C, as indicated in Fig. 3. Upon each end sill A is erected a pair of posts D D, which, together with a top cross-piece E, form a frame braced by tie-rods E′, as shown, the same being bolted to the approaches C. Secured on the top of one of the frames thus constructed is a pulley F for receiving a cable. In Fig. 1 is shown another pulley H, secured to the sill A, which also takes the cable G in the manner shown. The cable passes under the platform and runs over a pulley H′ at the opposite side of the machine and thence up to a drum I on a shaft J, having bearings near the top of the frame, as in Figs. 1 and 3. Said shaft J carries at its outer end two ratchet-wheels K L, both being affixed thereto, their teeth extending in the same direction. Adjacent to the ratchet L is a wheel M, loose on the shaft J and held by means of a band N, which nearly surrounds it. The two ends of said band are connected to a lever O, pivoted on a bracket P, secured to one of the posts D, as shown. It will be seen that the ends of the said band are secured at opposite sides of the pivot of the lever. By moving the lever in one direction the band is tightened, and when moved in the opposite direction it is loosened. In Fig. 3 at Q is an arm secured to D, behind which the lever is thrown when the band is tightened to hold the wheel M from moving. Next to the ratchet-wheel K on the shaft is a lever R, having a pawl S to engage the teeth of said wheel K, a spring T serving to keep the pawl in constant engagement with said teeth. On one of the spokes of the brake-wheel M is a pawl U, held by a spring V into the teeth of the wheel L. Beneath this portion of the apparatus, near the bottom of the dump, is a casting W, (shown in Fig. 4,) in the upper portion of which is carried a gear-wheel 2, to which is connected a pitman 3, the upper end having pivotal connection with the lever R. Meshing with the gear 2 is a pinion-gear 4, driven by power of any kind by means of the shaft 5.

In Fig. 5 is shown the platform for raising the forward end of the wagon. This consists of a plank 6, resting upon the end sills A, with a cleat 7 at each end and a beam 8 at each side of the plank acting as stops for the wheels. The platform is adapted to rise and fall by means of the cable G at one end, which is attached to a bail 9, Fig. 5, and at the other end a bail 10 is employed, to which a cable 11 is attached, whose other end is adapted to

wrap upon the drum I, said cables G and 11 being wrapped upon the drum so as to wind in the same direction of necessity. Power applied to the pinion 4 transmits motion to the gear 2 and a consequent reciprocating movement to the lever R. Such movement will move the ratchet-wheel K a portion of a turn and will in turn revolve the winding-drum I and take up the cables. As each partial turn of the ratchet-wheels is taken the pawl U of the wheel M holds the ratchet-wheel L and the drum I from retrograde movement. During this time the band-brake is set so that the wheel M cannot revolve, as will be understood. The front wheels of the wagon are driven upon the platform and rest between the beams 8, which serve to hold said wheels in place.

I provide a tongue for the machine, (indicated at 12,) on the forward end of which is pivoted a bar 13 by means of an upwardly-extending arm 14. This portion of the apparatus is designed to receive the weight of the rear of the wagon for preventing movement thereof during the dumping operation, said bar 13 receiving the rear axle against its end. The lock thus provided may be operated automatically by being met by the end of the wagon-box, as indicated, or may be raised by hand or other means, as desired. The tongne being located at the middle of the device is not in the way of the horses or the wheels of the wagon and serves to draw the dump from place to place and at the same time serves as a support for the lock described.

An important feature of my improved dump is the provision for transporting the machine by means of carrying-wheels A′, one of which is placed at each end of the platform, as having support on the sills A described. These when resting on the surface of the ground support the machine well above the uneven places in traveling over the field, so that transportation is readily accomplished. When setting the dump for use, the earth is removed from beneath the wheels, so that those members will be let down to permit the sills A to rest firmly upon the ground, as shown in Fig. 3, in which position the dump is firm and ready for use with no further preparation. When moving the dump, the horses are attached to the tongue in the usual way and driven to the next location or wherever it is desired to take the device, the wheels A′ raising the dump from the ground as they are drawn out of the depression made for them.

When the platform 6 is raised, as shown in broken lines, and the wagon is to be let down after being dumped, the lever O is drawn from behind the stop Q, there being sufficient play in the pivot thereof to permit such movement, and the band is slightly loosened, so that the wheel M may turn with the shaft J as the weight of the platform revolves the drum I, all of which will be understood,

I am not aware of a portable grain-dump having a tongue for transporting it, much less a tongue having the automatic locking device for the rear of the wagon, as described; neither am I aware of a dump of this kind having wheels for transporting purposes, nor is there to my knowledge a device constructed as to the other portions of the operating mechanism, and therefore

I claim—

1. A grain-dump comprising a platform adapted to rest on the ground while in use, carrying-wheels for said platform by which it is made portable, a draft device for transporting purposes, a vertically-movable platform carried by the first platform and means for raising and lowering the same for the purposes herein set forth and described.

2. A portable grain-dump comprising a platform for supporting the front wheels only of a wagon to be dumped, said platform resting upon the ground a second platform upon the first the same being adapted to rise and fall for carrying the said wheels of the wagon, cables attached to the platform, a winding-drum for the cables and means for operating the drum to lift the platform for the purposes set forth and described.

3. A portable grain-dump comprising a platform B adapted to rest on the ground, carrying-wheels A′ for the same, a tongue 12 attached to said platform by which it may be transported and an elevating-platform 6 for raising the front end of a wagon to be delivered of its load, and a locking device on the tongue 12 by which the rear of the wagon is prevented from moving while in the dumping position.

4. A portable grain-dump comprising the platform B, carrying-wheels A′ therefor, the tongue 12 attached thereto, the frame D, E on each end of the platform, a platform 6 between the frames and adapted to rise and fall, a cable G attached at one end to one end of the platform 6, the pulley F at the top of one of the frames, the pulley H below the pulley F and the pulley H′ arranged as shown over which the cable is adapted to run, winding means for said cable G, and a cable 11 attached at one end to the opposite end of the platform 6 and at its other end to the said winding means all being arranged substantially as set forth and described.

5. A portable grain-dump consisting of the platform B, wheels A′ for carrying the same, the tongue 12, the locking-arm 14 thereon for the purposes described, the frames D, E at each end of the platform, the vertically-movable platform 6 the cables G and 11 for raising the same, the shaft and winding-drum J and I respectively, the ratchet-wheels K, L on said shaft J, the pawl-arm R adjacent to the former, the pawl S for operating said wheel K, the wheel M loose on said shaft J adjacent to the wheel L, the pawl U on said

wheel M for engaging the wheel L, the band-brake N for said wheel M arranged substantially as described, the pitman 3 for operating the arm R and power device for operating the said pitman all substantially as described and shown.

6. In a portable grain-dump, the platform B, wheels A′ for carrying the same, the tongue 12, the locking-arm 14 on the tongue, the frame D, E at each end of the platform, the vertically-movable platform 6, the cables G and 11 for raising the platform, the shaft J and winding-drum I, the ratchet-wheels K, L on shaft J, the pawl-arm R adjacent to the wheel K, the pawl S for operating said wheel K, the wheel M carried on said shaft J but loose thereon, the pawl U on said wheel M for engaging the wheel L, the band-brake N for said wheel M, the lever O for the same, the pitman 3 attached at one end to the arm R, wheel 2 to which the opposite end of the pitman is connected, pinion 4 engaging and driving the wheel 2 for operating the pitman all substantially as described and shown.

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

JOSEPH E. CAMP.

Witnesses:

E. J. ABERSOL,

L. M. THURLOW.