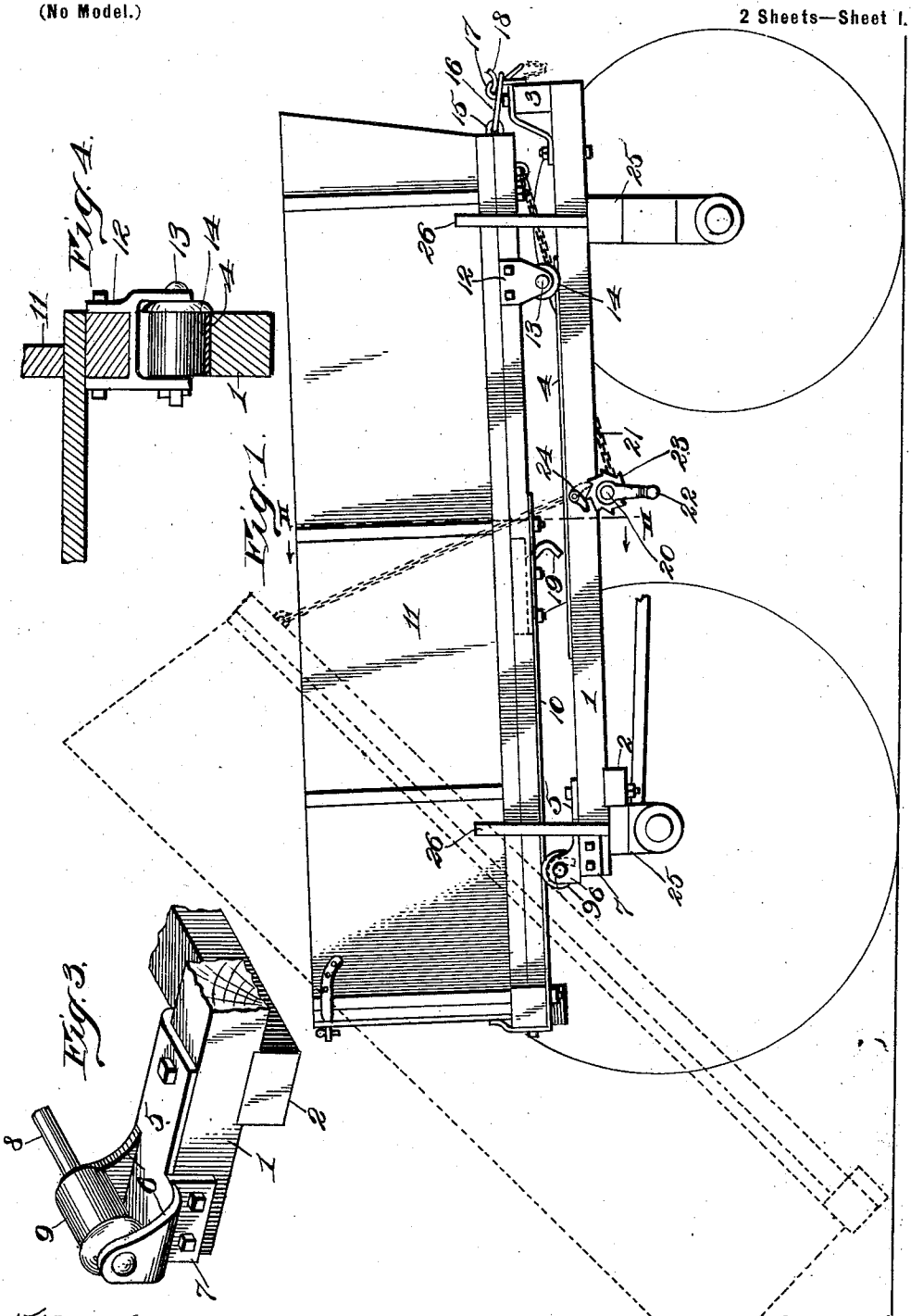
No. 711,539. Patented Oct. 21, 1902.

W. A. SHOPE.

DUMPING WAGON.

(Application filed Aug. 23, 1902.)

(No Model.) 2 Sheets—Sheet 1.



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Fig. 2.

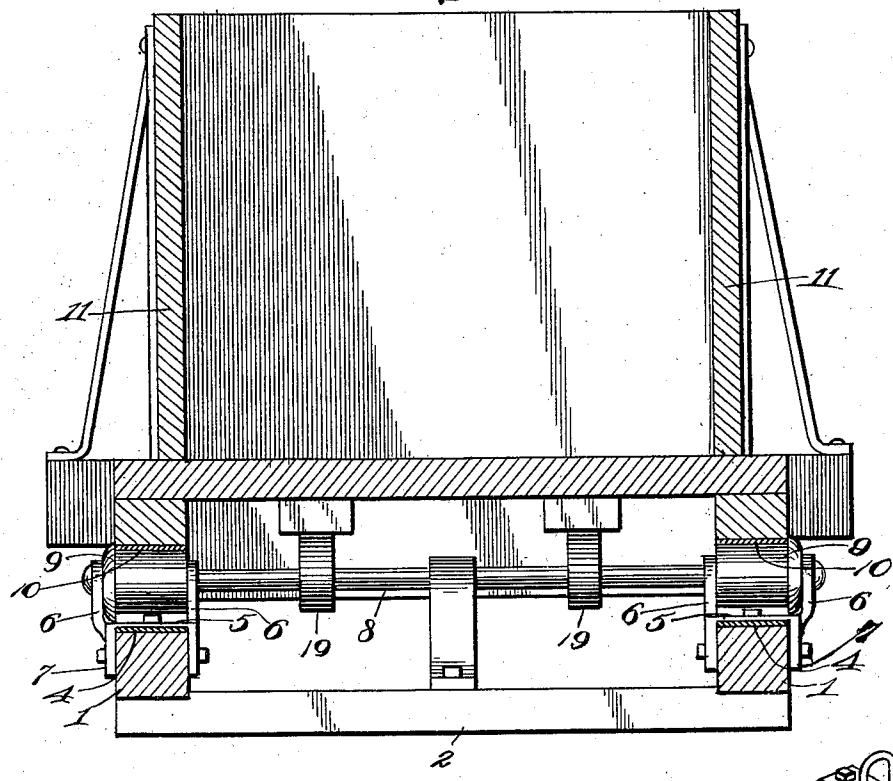
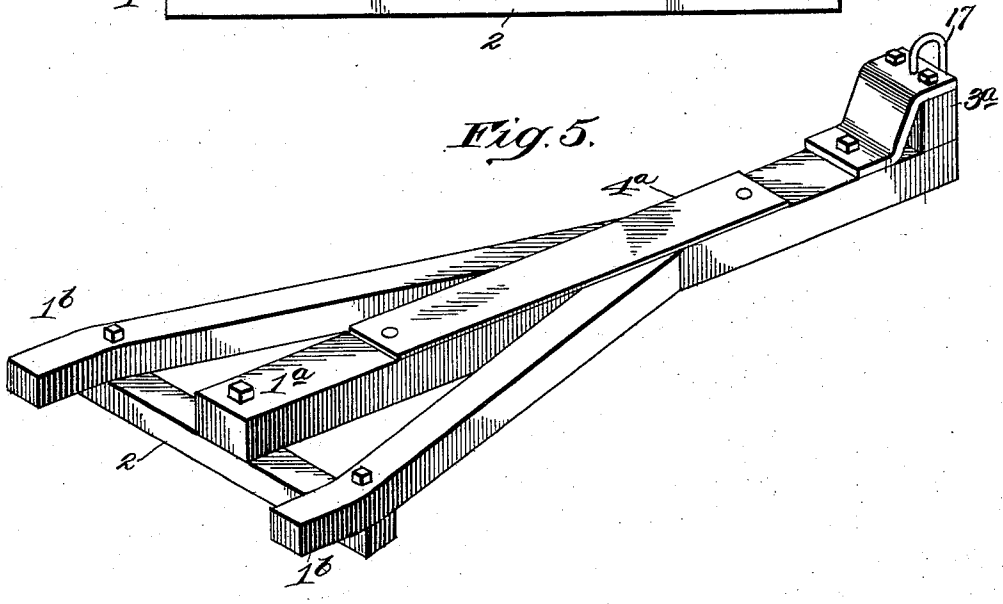


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM A. SHOPE, OF KANSAS CITY, MISSOURI.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 711,539, dated October 21, 1902.

Application filed August 23, 1902. Serial No. 120,785. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. SHOPE, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a specification.

My invention relates to dumping-wagons for asphalt or other material, and more especially to that class consisting of a frame mounted detachably on wheels and a body portion mounted to slide and tilt upon said frame, my object being to produce a wagon of this type which can be operated easily and in which there is no danger of the bed when dumped digging into and tearing up the bed of concrete or other surface.

To this end the invention consists in certain novel and peculiar features of construction and combinations of parts, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a side elevation of a dumping-wagon embodying my invention. Fig. 2 is an enlarged cross-section taken on the line II II of Fig. 1. Fig. 3 is a perspective view of one of the rear corners of the detachable frame. Fig. 4 is a vertical section of part of the frame and body portion and showing a roller of the latter engaging a track-rail of the frame. Fig. 5 is a perspective view of a modified form of the detachable frame.

In the said drawings the preferred form of the detachable frame consists of parallel side bars 1, connected at their under sides and near their rear ends by a cross-bar 2 and at their upper sides and front ends by a cross-bar 3. Said frame is provided with a track-way consisting of a pair of rails 4, and at its rear corners is provided with a pair of angle-brackets 5, each bracket having a pair of upwardly-projecting ears 6 and an arm 7, the latter fitting against the outer face of its companion bar 1 and a suitable distance rearward of cross-bar 2. A cross-rod 8 is journaled in ears 6 and carries between each set of the latter a flanged roller 9, the flanges of said rollers being at their outer sides, so as to engage the outer edges of track-rails 10, secured to the bottom of the body portion 11 of any suitable or preferred type and provided, as usual, with depending ears 12, in which is journaled a cross-rod 13, carrying flanged rollers 14, said rollers normally engaging track-rails 4 and having their flanges lapping the outer edges of said rails.

To prevent the body portion sliding rearward accidentally, it is provided at its front end with devices for securing it detachably to the frame, said devices preferably consisting of a staple 15 and a hasp 16, mounted upon the staple and arranged to engage the staple 17 of bar 3, an angular pin 18 securing such relation of parts. The body portion is also provided about midway its length with rearwardly-disposed hooks 19 to limit the rearward movement of the body portion by coming in contact with the cross-rod 8 and then permitting the body portion to swing to the position shown in dotted lines.

To prevent any possibility of the body portion oscillating far enough to strike the ground, I provide the frame with a cross-shaft 20 and connect such shaft by means of a chain 21 with the front and lower portion of the body, the parts being so arranged and proportioned that the chain shall be entirely paid out before the rear end of the body strikes the ground and of such proportions also that it shall be about fully extended when the body portion occupies its normal position, as shown in Fig. 1. The shaft is provided with a crank-handle 22 and with a ratchet-wheel 23 for engagement by a gravity-dog 24, mounted on the frame.

When the wagon is loaded and ready to dump, the parts occupy the position shown in full lines, Fig. 1, so that the body after disconnection is effected at the front end by withdrawing pin 18 and raising the hasp may be pushed rearwardly or drawn rearwardly by proper manipulation of the crank, this latter operation winding the chain upon the shaft. As the hooks 19 engage cross-rod 8 the body overbalances at its rear end and swings downwardly, incidentally unwinding the chain, the operator easing or steadying the dumping operation by grasping the crank and retarding its movement. The chain, as hereinbefore stated, is entirely paid out before the body can strike the ground, and therefore prevents possibility of injury to the surface of the latter.

To restore the body to its original position after its contents have been entirely removed, the operator grasps the crank and manipulates it to rewind the chain upon the shaft and as a precautionary measure against accidental back rotation throws the dog 24 to operative position, as shown by dotted lines. As soon as this operation results in replacing rollers 14 upon rails 4 the operator again throws the pawl to inoperative position and with the assistance of the street-gang slides the body portion forwardly to its original position and then resecures it to the frame.

The wheel-supported axles 25, which carry the frame, are provided, as usual, with the uprights or stakes 26, and the frame is prevented from moving laterally by the latter, while endwise movement of the frame is prevented by cross-bar 2 engaging the front side of rear axle 25 and arms 7 bearing against the rear side of the uprights or stakes projecting from such axle, as shown clearly in Fig. 1. This simple, reliable, and cheap construction enables the wagon to be quickly and easily dismantled when the axles and wheels are desired for use in connection with a different wagon-body—that is to say, the owner may possess a running-gear to be used at will as a part of a lumber carrying or dumping wagon.

With some materials it may be desirable to effect the dumping action without tilting the body to its extreme limit. In such cases when the desired angle of the body is attained the operator will throw the dog to operative position and lock the body from further descent, as will be readily understood.

In lieu of the rectangular frame equipped with a pair of track-rails 4 I may employ a frame having a center bar 1^a, suitably braced and provided with a single track-rail 4^a and a short block 3^a, as an equivalent of cross-bar 3. This type of frame will be more desirable than the other to the man whose front wheels are too high to pass under the frame, as it will permit a shorter turn to be made.

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

1. In a dumping-wagon, the combination of wheel-supported axles provided with upwardly-projecting stakes, a frame mounted upon such axles between the stakes and provided with a cross-bar engaging the front side of the rear axle, and with brackets having arms engaging the rear sides of the rear-axle stakes, and a body arranged to slide and oscillate upon said frame.

2. In a dumping-wagon, the combination of wheel-supported axles provided with upwardly-projecting stakes, a frame mounted upon such axles between the stakes and provided with a cross-bar engaging the front side of the rear axle, and with brackets having arms engaging the rear sides of the rear-axle stakes, a body arranged to slide and oscillate upon said frame, and means for detachably connecting the front ends of the frame and body.

3. In a dumping-wagon, the combination of wheel-supported axles, provided with upwardly-projecting stakes, a frame mounted upon such axles between the stakes and provided with a cross-bar engaging the front side of the rear axle and with brackets having arms engaging the rear sides of the rear-axle stakes, a cross-rod journaled in said brackets, flanged rollers upon said rod, a body resting upon said flanged rollers and provided near its front end with similar rollers resting upon the frame, means detachably uniting the body and frame, and rearwardly-disposed hooks depending from the body and adapted to engage said cross-rod.

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

WILLIAM A. SHOPE.

Witnesses:
G. Y. THORPE,
H. C. RODGERS.