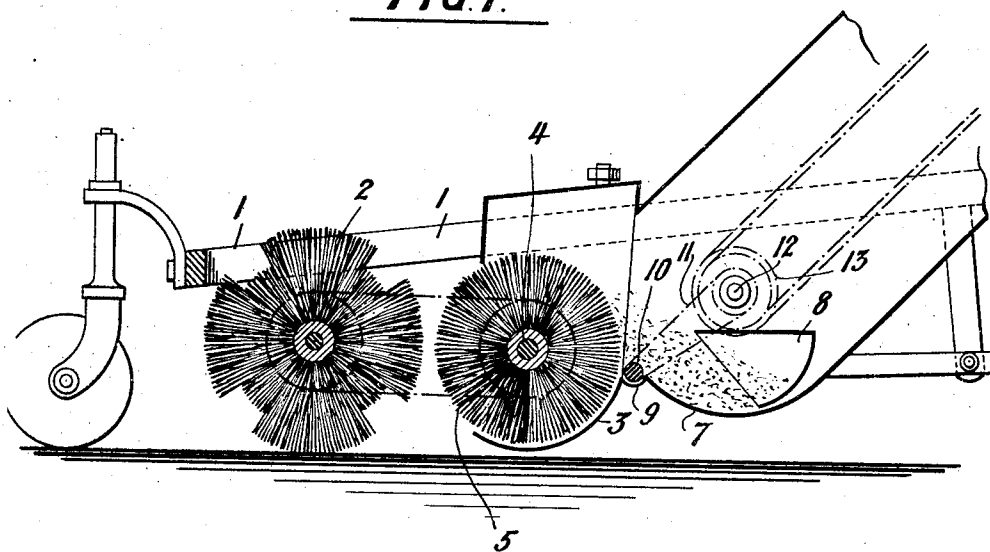
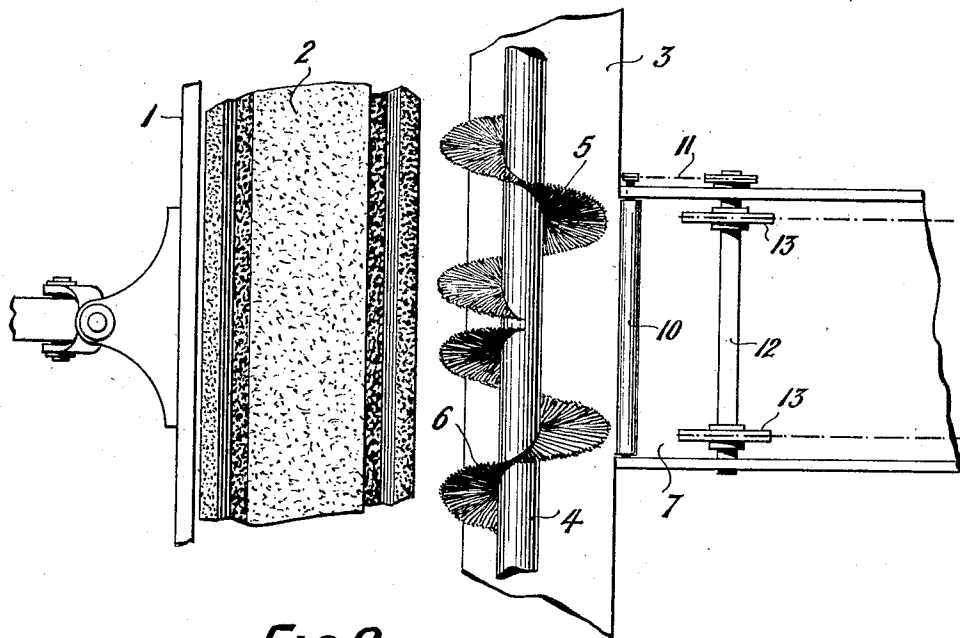


W. BARNETT & J. FLORENDINE.
 CONVEYER MECHANISM PARTICULARLY APPLICABLE FOR ROAD SWEEPING AND OTHER MACHINES.
 APPLICATION FILED JULY 9, 1917.

1,248,992.

Patented Dec. 4, 1917.

—*Fig. 1.*—



—*Fig. 2.*—

Walter Barnett and
 James Florendine
 By *Wm. E. Lamb Atty.*

UNITED STATES PATENT OFFICE.

WALTER BARNETT AND JAMES FLORENDINE, OF RUGBY, ENGLAND.

CONVEYER MECHANISM PARTICULARLY APPLICABLE FOR ROAD-SWEEPING AND OTHER MACHINES.

1,248,992.

Specification of Letters Patent.

Patented Dec. 4, 1917.

Application filed July 9, 1917. Serial No. 179,475.

To all whom it may concern:

Be it known that we, WALTER BARNETT and JAMES FLORENDINE, subjects of the King of Great Britain, residing at Rugby, Warwickshire, England, have invented certain new and useful Improvements in Conveyer Mechanism Particularly Applicable for Road-Sweeping and Other Machines, and of which the following is a specification.

10 This invention refers to improvements in conveyer mechanism particularly applicable for road sweeping machines having conveyer mechanism of the kind described in the specification of our patent application
15 Serial No. 134113, filed 29th November 1916, that is to, say conveying mechanism comprising a trough segmental in cross-section which receives the refuse or other material to be conveyed (hereafter termed refuse) to
20 the longitudinal edge of which trough there is fixed the boot of an elevator casing of less width than the trough, the said boot and the said trough conjoining in such manner that an elevated dividing ridge is formed
25 at the junction of said trough and said boot; with this construction two oppositely inclined helical blades are carried in said trough by a revolving shaft, the said helical blades meeting on the shaft opposite the
30 center of the boot of the elevator and operating not only to move the refuse along the trough to a position opposite the boot of the conveyer, but acting also to transfer the refuse from the trough over the dividing
35 ridge into the boot of the elevator.

Now it has been found that the refuse is liable to collect on the ridge between the segmental trough and the boot of the elevator and such refuse, gradually accumulating on
40 the ridge, forms an obstruction to the regular action of the conveyer mechanism. The object of the invention is to provide simple and efficient means for overcoming this defect.

45 The invention will be described with reference to the accompanying drawings as applied to a road sweeping machine, Figure 1 being a vertical section of the rear portion of such a machine fitted according to the
50 present invention, and Fig. 2 is a part plan view of same.

The road sweeping machine illustrated in the drawings is of the kind referred to in the specification of our patent application
55 Serial No. 134113 aforesaid, that is to say

it comprises a framework 1 carrying a circular revoluble road brush 2 by which the refuse is delivered into a segmental trough 3 through which extends a shaft 4 carrying a helical blade 5 inclined in one direction 60 and another helical blade 6 inclined in the opposite direction, the helical blades extending from the ends of the segmental trough 3 to opposite the center of the boot 7 of an elevator which is fixed to the trough 3 so
65 that an elevated ridge is formed between the trough 3 and the elevator boot 7. The two helical blades 5 and 6 fixed on the shaft 4 meet opposite the center of the conveyer boot 7, and these blades act at their meeting place to transfer the refuse from the segmental trough 3 to the boot 7 of an inclined elevator casing which contains convenient elevating mechanism 8. The road
70 brush 2, the helical blade-carrying shaft 4, and the chain of the elevator are driven in any convenient manner and usually by driving chains from the road wheels of the machine, which are not illustrated in the accompanying drawings. 80

It will however be observed that the refuse in being transferred from the segmental trough 3 by the helical blades into the boot 7 of the elevator, must pass over the ridge 9
85 between the said trough 3 and the said boot 7.

Now according to the present invention a revoluble roller 10 is located upon this ridge, and in the drawing at Fig. 1 the roller 10 is accommodated in a segmental recess
90 formed on the ridge 9, being carried in suitable bearings, so that the roller 10 is capable of turning about its axis as the refuse passes over, and the surface of the roller 10 is subjected to a constant scraping action
95 during its revolution by the edges of the recess in which it partly enters.

Generally we find that the roller 10 acts most advantageously when positively driven from some moving part and so mechanically
100 caused to have a constant revolution about its axis, and to this end we connect the axis of the roller 10 with some convenient revoluble shaft, by say sprocket wheels and a chain 11, and the roller can conveniently be
105 driven from the shaft 12 carrying the lower sprocket wheel 13 of the elevator.

By this invention any collection of refuse on the connecting ridge between the containers which has been liable to such in- 110

crease as to be detrimental to the operation of the machine, is now entirely obviated.

What we claim as our invention and desire to secure by Letters Patent is:—

1. In conveyer mechanism for road sweeping and other machines; the combination with a segmental trough to receive the material to be conveyed, an elevator casing less in width than said trough and fixed at its lower boot end to said trough, an elevated dividing ridge located at the junction between said trough and said boot, a revoluble shaft extending through said trough, two oppositely inclined helical blades carried by said shaft meeting each other opposite the center of said boot to transfer said material from said trough over said ridge to said boot, and means for driving said blade-carrying shaft; of a revoluble roller located on said dividing ridge over which roller the material being conveyed passes on its passage from said trough to said boot, and bearings on said ridge to carry said roller.
2. In conveyer mechanism for road sweeping and other machines; the combination of a segmental trough to receive the material to be conveyed, a revoluble shaft extending through said trough, means for driving said shaft, two oppositely inclined helical blades fixed on said shaft and meeting each other thereon, an elevator casing less in width than said trough and fixed at its lower boot end thereto opposite the meeting point of said helical blades to receive the material carried along and expelled from said trough by said helical blades, an elevated dividing ridge located at the junction between said trough and said boot to divide these two receptacles and over which said material passes, said elevated dividing ridge having a segmental recess, a revoluble roller located on said dividing ridge and partly entering said segmental recess to prevent accumulation of conveyed material on said dividing ridge, and bearings on said ridge to carry said roller.
3. In conveyer mechanism for road sweeping and other machines; the combination

with a segmental trough to receive the material to be conveyed, an elevator casing less in width than said trough and fixed at its lower boot end to said trough, an elevated dividing ridge located at the junction between said trough and said boot, a revoluble shaft extending through said trough, two oppositely inclined helical blades carried by said shaft meeting each other opposite the center of said boot to transfer said material from said trough over said ridge to said boot, and means for driving said blade-carrying shaft; of a revoluble roller located on said dividing ridge over which roller the material being conveyed passes on its passage from said trough to said boot, bearings on said ridge to carry said roller, and means for mechanically revolving said roller.

4. In conveyer mechanism for road sweeping and other machines; the combination with a segmental trough to receive the material to be conveyed, an elevator casing less in width than said trough and fixed at its lower boot end to said trough, an elevated dividing ridge located at the junction between said trough and said boot, a revoluble shaft extending through said trough, two oppositely inclined helical blades carried by said shaft meeting each other opposite the center of said boot to transfer said material from said trough over said ridge to said boot, and means for driving said blade-carrying shaft; of a revoluble roller located on said dividing ridge over which roller the material being conveyed passes on its passage from said trough to said boot, bearings on said ridge to carry said roller, and gearing connecting said roller with the shaft of said elevator to positively drive said revoluble roller.

In witness whereof we have hereunto set our hands in the presence of two witnesses.

WALTER BARNETT.
JAMES FLORENDINE.

Witnesses:

ERNEST HARKER,
THOMAS WILLIAM ROGERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."