

Oct. 31, 1933.

N. FRISCH

1,932,928

GRIT DISTRIBUTING MACHINE

Filed April 2, 1931

2 Sheets-Sheet 1

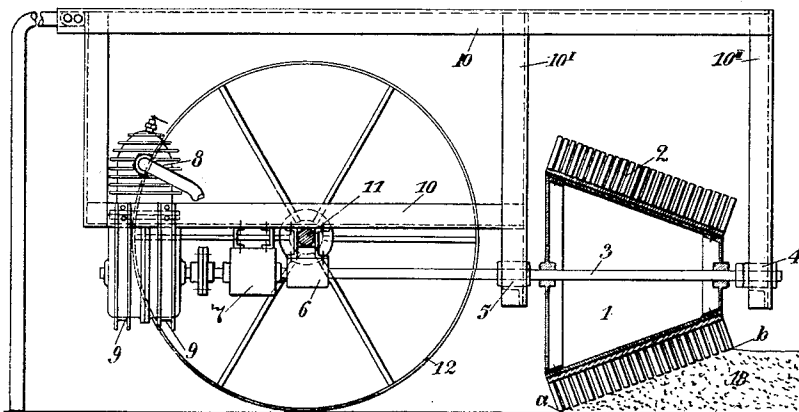


Fig. 1.

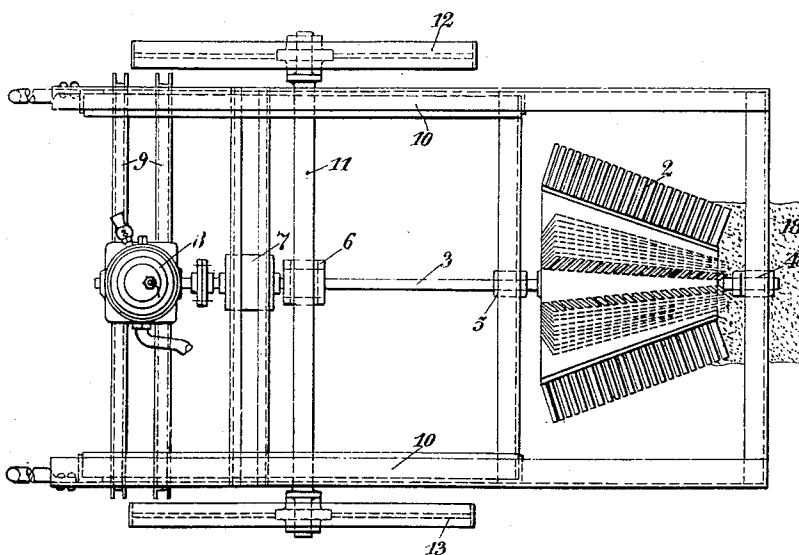


Fig. 2.

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2 Sheets-Sheet 2

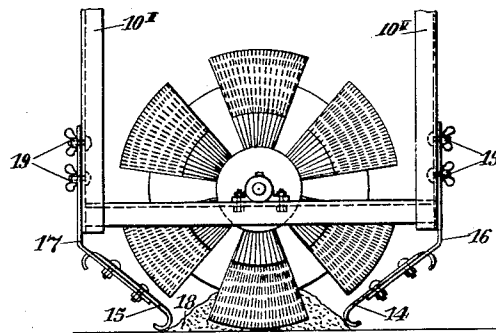


Fig. 3.

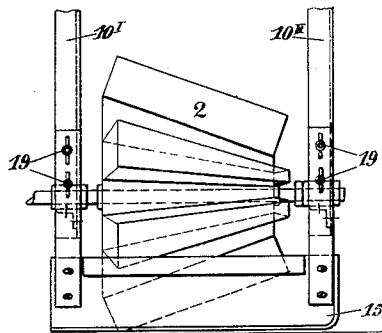


Fig. 4.

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UNITED STATES PATENT OFFICE

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GRIT DISTRIBUTING MACHINE

Nikodemus Frisch, Augsburg, Germany

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and in Germany May 30, 1930

2 Claims. (Cl. 94-44)

This invention relates to a sand or grit distributing machine with devices for taking up the material to be distributed heaped on one or both sides of a road and for uniformly distributing same on tarred or oiled road surfaces by means of a rotating centrifuging cylinder.

Compared with the known constructions the novelty consists in that the centrifuging cylinder, studded with resilient steel wire and mounted on the end of a shaft extending in the longitudinal axis of the vehicle, is made in truncated cone-shape.

The material is by this machine simultaneously gripped and distributed over the width of the road.

An embodiment of the invention is illustrated by way of example in the accompanying drawings in which:

Fig. 1 shows the grit distributor in side elevation, partly in section.

Fig. 2 is a top plan view of Fig. 1.

Fig. 3 is a front view of Fig. 1.

Fig. 4 is a side elevation of the adjustable guide plates and of the centrifuging cylinder.

The rotatable centrifuging cylinder 1, which is conical according to the invention has a brush like cover 2 of resilient steel wire on its circumference, by means of which when the vehicle is running on a road it grips sand, gravel or grit, deposited at the side of the road and distributes same over the tarred road surface. The centrifuging cylinder 1 is keyed on a shaft 3, journaled in bearings 4, 5 and 6 and adapted to be engaged and disengaged by a reducing and reversing gear 7. This gear is coupled to an engine 8 carried by means of U-section girders 9, 9 on the vehicle frame 10.

The vehicle frame 10 rests on an axle 11, on the ends of which running wheels 12 and 13 are mounted by ball bearings.

On the lower end of the vertical front frames 10^I and 10^{II} adjustable guide plates 14 and 15 are arranged, adjustable by means of straps 16 and 17 relative to the centrifuging cylinder according to the thickness of the brush cover and fixed by means of wing nuts 19.

The guide plates 14 and 15 may be raised or lowered for limiting the distance which the grit material is thrown.

The sand or grit distributor is simple to operate and works in the following manner:

The sand or grit material is deposited along one or both sides of the road to be tarred and in quantities corresponding to the road surface to be tarred. The sand or grit distributor is run

up to the heap 18 so that the shaft 3 is almost in the middle of the heap in longitudinal direction. The centrifuging cylinder 1 rotated during the slow forward movement of the sand or grit distributor grips into the sand or grit heap with its elastic brush-like steel wire cover 2 and throws the material over the suitably adjusted guide plates 14 or 15, according to the direction of rotation, so that the material is uniformly distributed over the previously tarred road surface.

Owing to the conical shape of the centrifugal cylinder 1 tapering in the direction of travel, a uniform taking up of the sand or grit from the heaps 18 is obtained. Moreover, as the circumference of the steel wire cover 2 gradually increases, a centrifuging effect increasing according to the size of the cylinder is obtained, so that at the point *a* of the circumference the greatest throwing range is obtained and at the point *b* the smallest.

I claim:

1. A sand or grit distributor with device for picking up the material to be distributed heaped on one or both sides of the road and for uniformly distributing the same on tarred or oiled road surfaces, comprising in combination with a vehicle, a shaft extending in the longitudinal axis of the vehicle, an engine connected to one end of said shaft adapted to rotate the same at a high speed, a rotatable centrifuging cylinder of truncated cone-shape mounted on the other end of said shaft, and a cover of resilient steel wire on the circumference of said cylinder adapted to pick up the material to be strewn and to uniformly distribute same directly over the surface of the road.

2. In a sand or grit distributor as specified in claim 1, guide plates adjustably mounted on the vehicle frame.

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