Nov. 23, 1943. R. G. LE TOURNEAU 2,334,778

ROLLER FOOT

Original Filed Dec. 31, 1938

Fig. 1

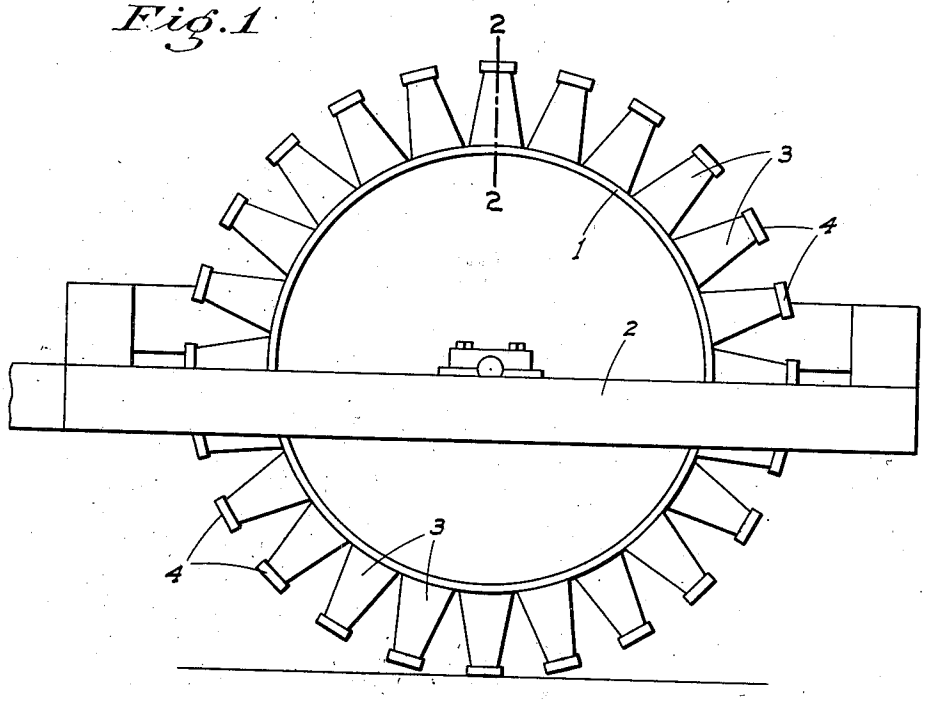


Fig. 2

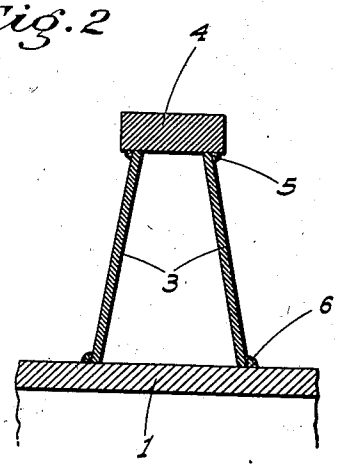
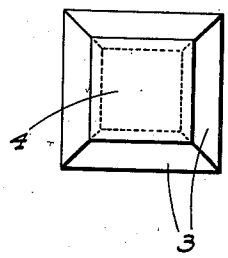


Fig. 3



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ROLLER FOOT

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Original application December 31, 1938, Serial No. 248,792. Divided and this application March 10, 1941, Serial No. 382,555

2 Claims. (Cl. 55—24)

This invention relates to sheep's-foot rollers and particularly to the construction and form of the feet of such rollers, the present application being a division of United States Patent No. 2,245,865, dated June 17, 1941.

The principal object of this invention is to provide tamping feet on the roller so formed that a very efficient ground compressing or compacting action is obtained, while at the same time the tendency for the feet to tear out of the ground and loosen the adjacent portions of the same is practically eliminated.

The above object is accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawing similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a side elevation of a sheep's-foot roller showing my improved feet mounted thereon.

Figure 2 is an enlarged sectional elevation of a foot taken on the line 2—2 of Fig. 1.

Figure 3 is a top plan view of a foot.

Referring now more particularly to the characters of reference on the drawing, the roller 1 is as usual supported in framing 2 and the feet are mounted on the roller in radiating relation thereto and in relatively close order.

Each foot is a hollow member formed of four plates 3 welded together along their adjacent edges and arranged as the frustum of a relatively tall pyramid, which is capped by a square and relatively heavy plate 4 somewhat larger than the adjacent or outer end of the foot pyramid and welded to plates 3 as indicated at 5. The feet are welded in place on the roller as indicated at 6 and are arranged in staggered relation so that the spacing between all the feet is substantially the same.

By thus constructing the feet they are large without being excessively heavy and their shape insures a compacting of the ground between the adjacent feet as the latter sink into the ground. At the same time, and due also to the shape of the feet, they do not tend to tear up the ground as they pull out of the same with the rotation of the roller. This is because the holes initially made by the feet are relatively wide at the top, permitting the feet to readily withdraw from said holes without materially disturbing the ground.

In other words, the feet 3 from their inner ends to a point a substantial distance outwardly therefrom are of a cross sectional configuration symmetrical to but larger than the cap plates (see Fig. 3), which produces—upon penetration of the feet into the ground—holes which at and adjacent their top are substantially larger than but symmetrical to the cap plates so that the latter can withdraw from the ground with a minimum of disturbance thereof. Also, as the cap plates are relatively shallow radially of the feet, ground disturbance is further minimized.

From the foregoing description it will be seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is:

1. A roller foot which includes an elongated outwardly tapering foot, and a cap plate secured on the outer end thereof; said cap plate in plan being symmetrical to but larger than the cross sectional configuration of said outer end of the foot, and the foot from its inner end to a point a substantial distance outwardly thereof being of a cross sectional configuration symmetrical to but larger than the cap plate in plan.

2. A roller foot which includes an elongated outwardly tapering foot, and a cap plate secured on the outer end thereof; said cap plate being relatively shallow axially of and as compared with the length of the foot and in plan being symmetrical to but larger than the cross sectional configuration of said outer end of the foot, and the foot from its inner end to a point a substantial distance outwardly thereof being of a cross sectional configuration symmetrical to but larger than the cap plate in plan.

ROBERT G. LE TOURNEAU.