

R. NACKE.
SPIKED ROLLER FOR AGRICULTURAL PURPOSES.
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943,989.

Patented Dec. 21, 1909.

Fig.1.

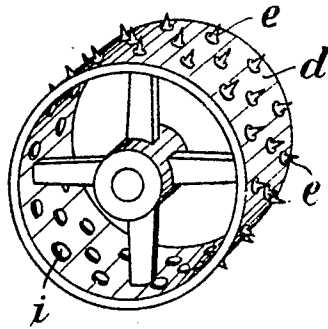


Fig.2.

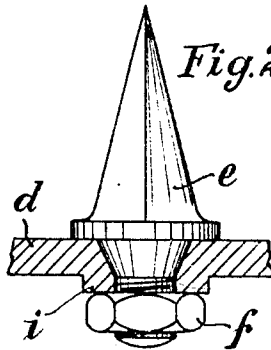
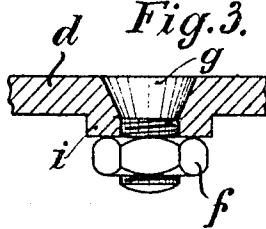


Fig.3.



WITNESSES

W. P. Burke
H. M. Hopping

INVENTOR

Robert Nacke
By *J. M. McLean* *Att'y.*

UNITED STATES PATENT OFFICE.

ROBERT NACKE, OF LANGENHOF, NEAR BICLEFELD, GERMANY.

SPIKED ROLLER FOR AGRICULTURAL PURPOSES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT NACKE, citizen of Germany, residing at Langenhof, near Biclefeld, Germany, have invented new and useful Improvements in Spiked Rollers for Agricultural Purposes, of which the following is a specification.

This invention relates to a spiked roller for agricultural purposes which can be adapted to the most varied conditions of working. For this purpose the mechanism is so arranged that the spikes which are interchangeable in the well known manner, can be replaced by bolts with a flat head for the purpose of converting the spiked roller into a smooth roller. The spikes can therefore also be set more or less closely together according to requirements, or they can be altered one with regard to another and be exchanged for other spikes of different shapes. If the spikes be replaced by special plugs which close the openings provided for the spikes, the roller is converted into a smooth roller without the necessity of changing the roller itself.

In the drawing the invention is illustrated as follows:

Figure 1 shows a perspective view of a single ring of a roller. Fig. 2 shows the method of fastening of the interchangeable spikes, and Fig. 3 shows that of the plugs provided for filling the spike holes.

The separate roller rings *d* which are placed upon a shaft one beside another and in any desired number, are provided with numerous spikes *c*. Each spike *c* is provided with a flange, and this flange is continued below in the form of a cone which terminates in a screw bolt. By means of the cone the spike is fitted into a correspondingly tapering boring of the roller surface and is firmly secured upon the inside of the same by means of a nut *f* which is pressed against a corresponding projection *i* of the roller envelop.

The securing of the spikes can obviously be effected in other ways. For instance upon the underside of the flange, which in this case is preferably made somewhat wider, two pins may be fixed which engage in corresponding perforations of the roller ring;

or the attachment might be effected by simply screwing in the spikes provided with screw bolts into a corresponding cavity in the roller ring suitably threaded.

The interchangeability of the spikes is of quite special importance for double rollers, because in these cases it is desirable to have the spikes upon the front roller less numerous than those upon the rear roller and to set them so as to alternate with one another, for the purpose of avoiding the passing of the spikes of the rear roller into the holes formed by the spikes of the front roller, while the parts of the field which come between the said holes remain untouched. This drawback of the rollers now in use can only be obviated by means of easy adjustability of the spikes.

For the converting of the spiked roller into a smooth roller, the bolt holes for the spikes are filled with suitably fitted pieces. As shown in Fig. 3, this can be done by means of little screw bolts with cone-shaped heads *g*, said bolts being also attached by means of nuts *f*. In the use of the spikes above described having two securing pins, the filling of the holes is effected by means of a suitably shaped plate also provided with two pins.

I claim:

A roller having holes therein, interior annular projections surrounding said holes, said holes flaring outwardly, spikes having a tapered portion adapted to engage with the flaring portion of the hole, and a screw threaded end, a nut adapted to engage with said screw threaded end and resting against the interior projection to removably hold the spike in position, and flat headed bolts located in some of the openings, said bolts having tapered heads engaging with the flaring portions of the openings and a screw threaded end, and a nut engaging with said end and resting upon the interior projection.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT NACKE.

Witnesses:

LUISE KATHER,
R. G. THOMPSON.