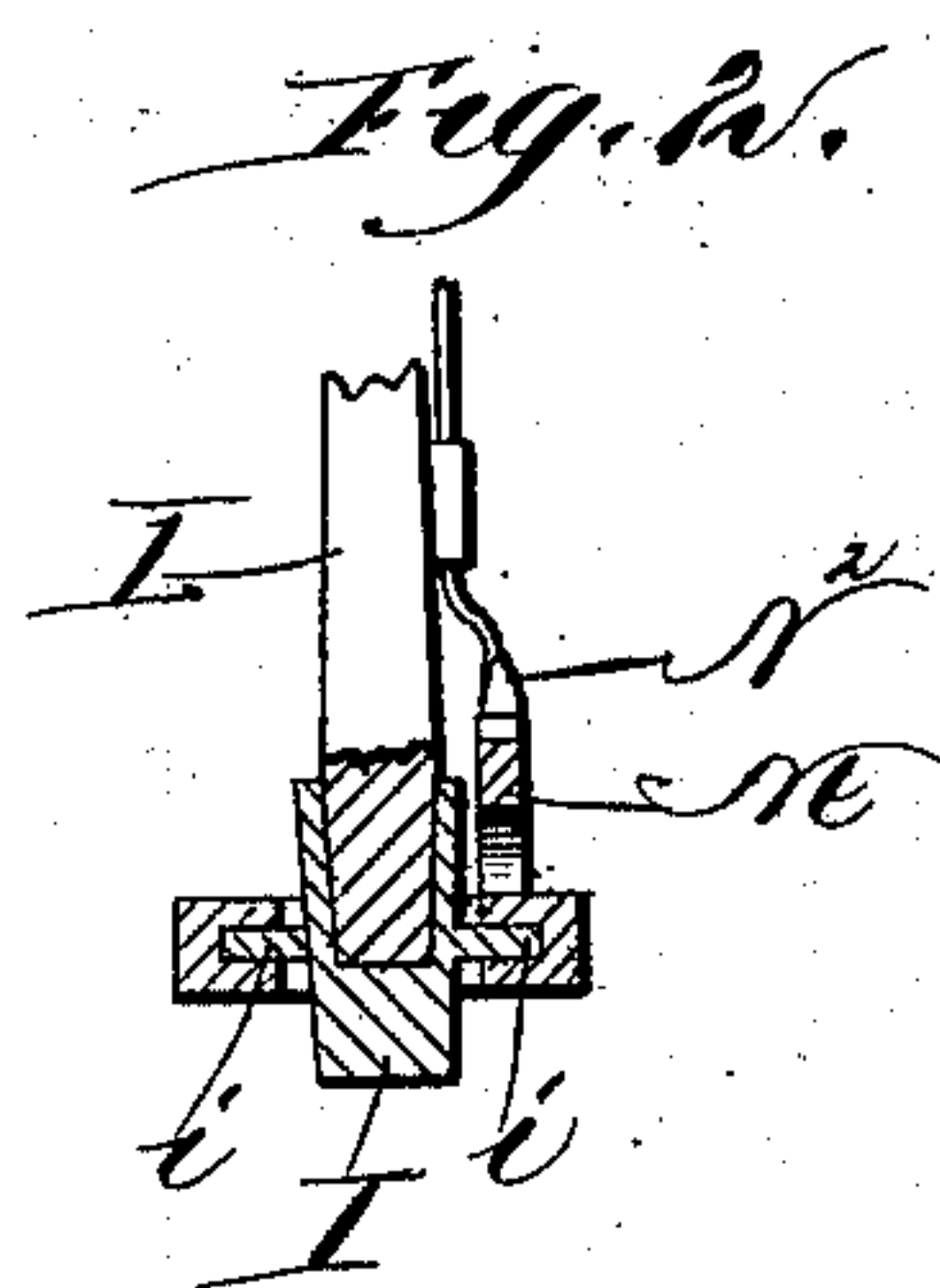
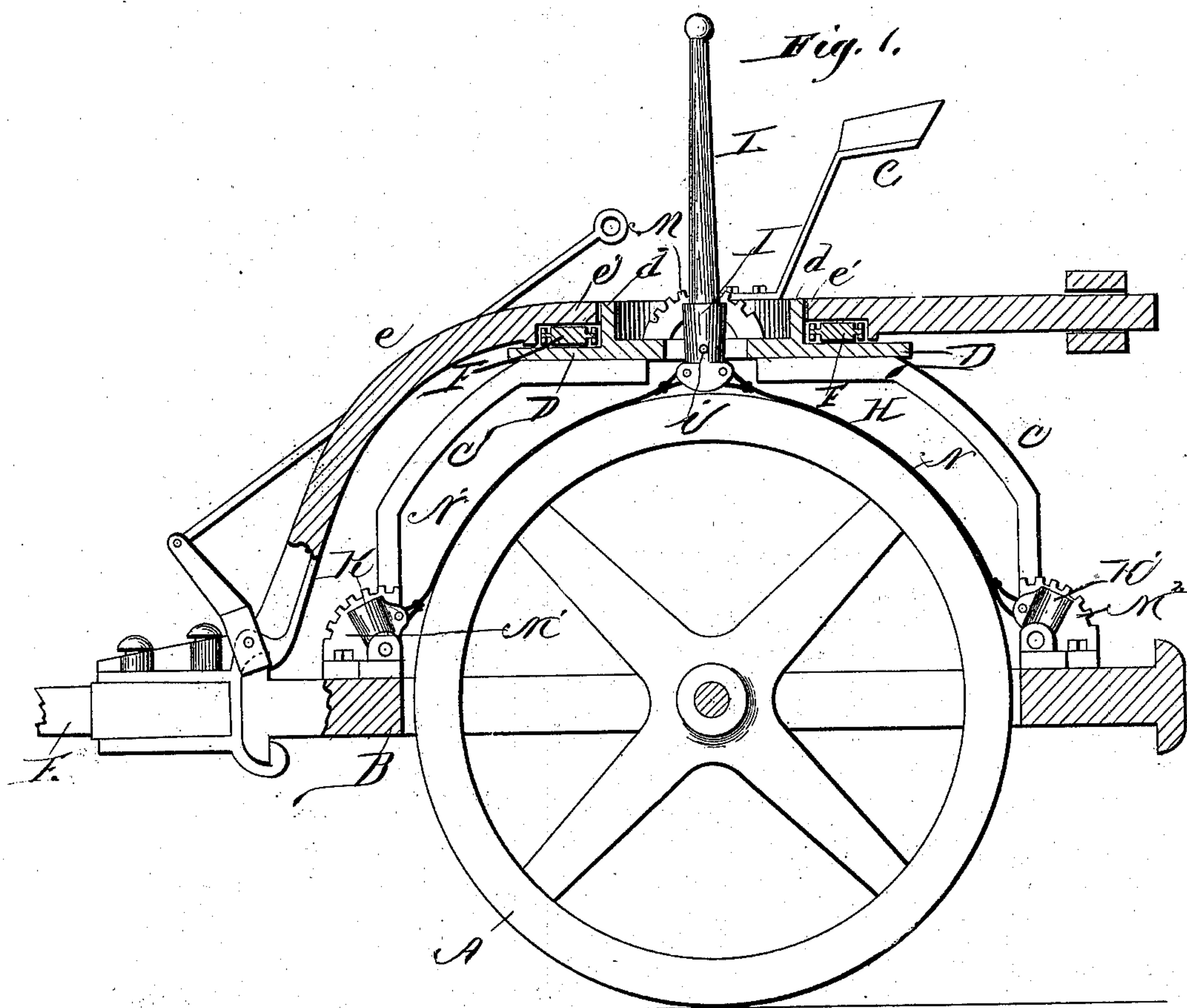


(No Model.)

M. G. BUNNELL.  
REVERSIBLE ROAD ROLLER.

No. 558,933.

Patented Apr. 28, 1896.



Witnesses  
W. R. Middleton  
H. H. Rosenfeld.

Inventor  
Morton G. Bunnell  
By Chas. G. Page  
Atty



# UNITED STATES PATENT OFFICE.

MORTON G. BUNNELL, OF CHICAGO, ILLINOIS, ASSIGNOR TO FREDERICK C. AUSTIN, OF SAME PLACE.

## REVERSIBLE ROAD-ROLLER.

SPECIFICATION forming part of Letters Patent No. 558,933, dated April 28, 1896.

Application filed July 31, 1893. Serial No. 481,967. (No model.)

*To all whom it may concern:*

Be it known that I, MORTON G. BUNNELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Road-Rollers, of which the following is a specification.

My invention relates to road-rollers generally, and is also particularly applicable to road-rollers of the kind embodied in my application for Letters Patent of the United States, filed April 1, 1893, and serially numbered 469,911.

The objects of my invention are to provide a highly-efficient brake adapted to automatically conform to the periphery of the roller, it being understood that in casting these rollers their perimeters frequently involve a departure from a true cylinder; also to provide a brake device which can be operated from different points, whereby, when the pole is arranged so that it can be swung from one to the other side of the roller, one or the other of such points may become the most convenient as a location for operating the brake; also to provide certain novel and improved details of construction, as hereinafter fully set forth.

On carrying out my invention I provide a flexible brake-strap and arrange the same for application to the perimeter of the roller, in which way the strap will conform to the roller, although the perimeter thereof may be irregular or not on a true circle. I also provide means whereby the brake-strap can at will be operated from different points, and I further provide means for temporarily locking the brake device.

On the accompanying drawings, Figure 1 represents a vertical longitudinal section through the frame portion of a "reversible" road-roller constructed substantially as in my said application, the section being taken centrally on a plane between the two roller-sections. Fig. 2 is a detail showing in section the handle-socket illustrated in Fig. 1 as being arranged over the roller.

The roller A is journaled in a frame B, and from the latter rise a set of legs C, which support the track or table D at a point over the roller. The horizontally-swinging pole E

is understood to be connected with a rear extension *e*, which latter extends back over the roller and unites with a circle *e'*, which is supported by a set of antifriction-rolls F, arranged upon the track or table D, substantially as in my said application. The track or table is also provided with an upwardly-extending annular flange *d*, about which the circle *e'* turns, and upon said flange is arranged a seat G for the driver.

The flexible brake strap or band H is arranged for application to the upper peripheral portion of the roller, and is preferably a metal band—for example, of spring-steel—although any suitable brake-band can be employed. Upon the table, which is arranged over the roller, I pivotally support a handle-socket I, and at two opposite sides (the front and rear sides) of the frame I support similar vibratory handle-sockets K and K'. With such arrangement of handle-sockets the brake-band is conveniently made of sections, one section being attached to the sockets I and K and the other to the sockets I and K', although of course the band could run continuous between the sockets K and K'. These sockets are each adapted to receive a handle, and, as a matter of simplification, I can provide one handle L, which can be applied to any one of the three sockets, as may be desired.

When, for example, the handle is in the upper socket I and is swung to the right, the band-section N will be drawn down upon the roller to brake the same, since its upper end is attached to the socket at a point below the fulcrum *i* of the latter, and, conversely, when the handle is swung to the left the band-section N' will be tightened upon the roller. These band-sections can also be tightened upon the roller by operating the sockets K and K', either of which can be supplied with a handle at will. With reference, therefore, to the application of power to either of the sockets K K', the socket I becomes a movable or vibratory support for the upper middle portion of the band, considered as a whole, while on the other hand, omitting either one of the sections or portions N and N' of the band, the other portions, in conjunction with the socket I and one of the sockets K and K',



forms a complete operative brake device. The purpose of the sockets is to receive the handle, but, broadly considered, these sockets or handle-holders are movable band tighten-  
 5 ers or adjusters of the handle or other means which might be employed for operating them. As illustrative of such, the band could be attached to the lever ends of one or more vibratory handles or levers, or to rocking or  
 10 otherwise movable bearings operated by any suitable adjusting mechanism, and hence for the broader purpose of my invention I do not herein limit myself to the use of sockets, or to any special length of brake-band.

15 As a matter of further improvement I provide racks  $M$   $M'$   $M^2$ , adjacent to the sockets, and provide the lever or handle with a latch  $N^2$  for engaging one or the other of such racks, as the case may be, in order to lock the brake  
 20 device. It is also understood that the band-tighteners, considered in their broadest sense, may be any suitable adjustable or movable tightener, and that, more specifically considered, they may be adapted in any suitable  
 25 way for holding the handle.

What I claim as my invention is—

1. A road-roller comprising a roller arranged to traverse the ground, a body-frame supported from the roller, a flexible arched  
 30 brake-band of one or more parts arranged over the roller and having its ends held upon the body-frame at opposite sides of the roller,

and a movable support for the middle portion of the band arranged over the roller and normally maintaining the band from binding 35 upon the roller, said support being movable to permit the band at either side of its connection therewith to be drawn down upon the roller, substantially as described.

2. The combination with a roller, of a plu- 40 rality of movable band-tighteners, and a brake-band arranged over the roller and attached to the band-tighteners, substantially as described.

3. The combination with a roller, of a plu- 45 rality of vibratory handle-holders, a removable handle, and a brake-band attached to the vibratory handle-holder, substantially as described.

4. The combination with a roller, of a plu- 50 rality of vibratory band-tighteners, a brake-band attached to the band-tighteners, and locking devices for locking the vibratory band-tighteners, substantially as described.

5. The combination with a roller, of the 55 brake-band, the set of vibratory sockets to which the brake-band is attached, the removable handle provided with a latch, and the racks arranged adjacent to the vibratory sockets, substantially as described.

MORTON G. BUNNELL.

Witnesses:

W. D. MIDDLETON,

F. A. HINCKLEY.