

No. 724,735.

PATENTED APR. 7, 1903.

C. F. PORTEOUS.
PIPE CARRIER.

APPLICATION FILED FEB. 1, 1902.

NO MODEL.

Fig. 1.

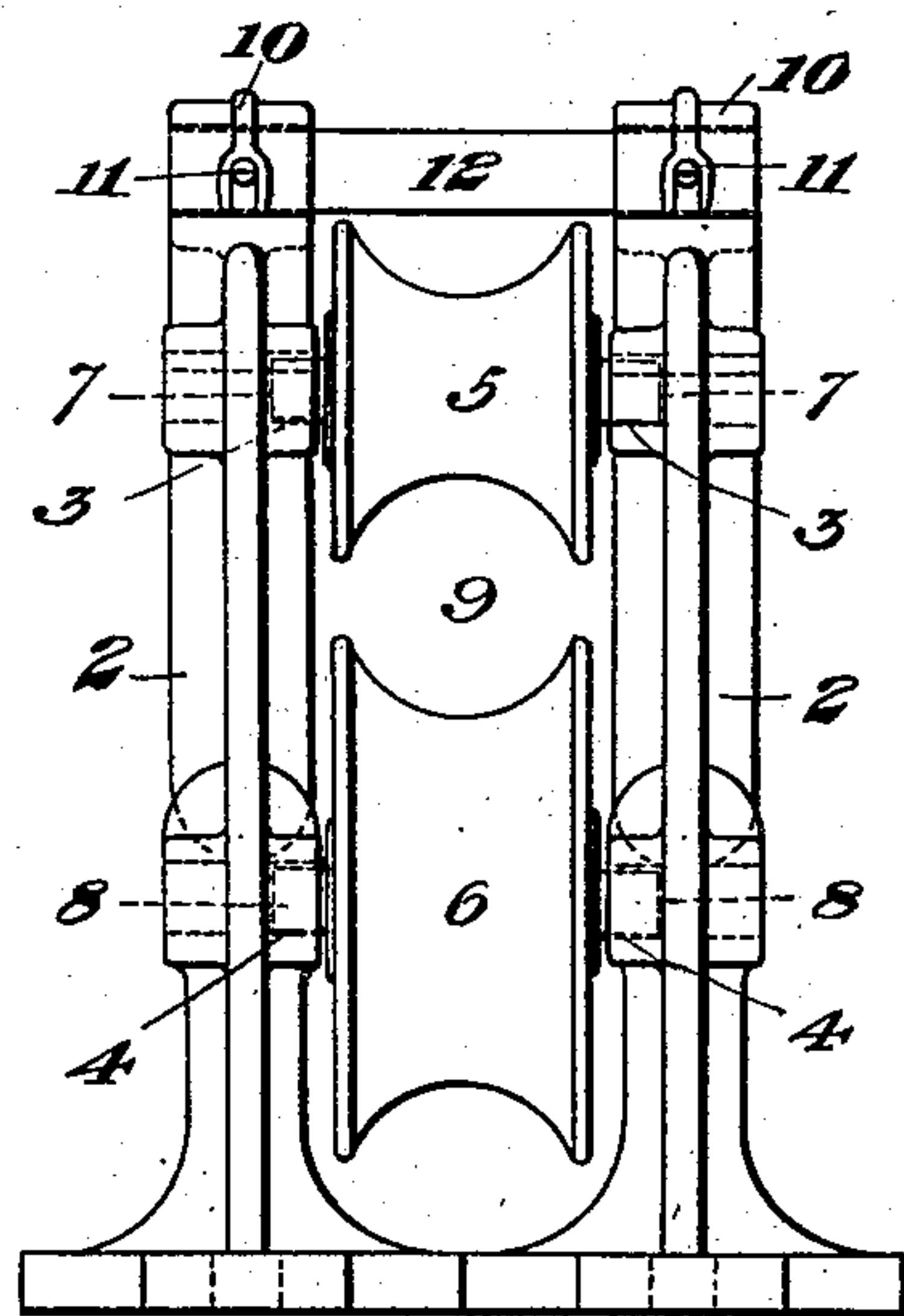
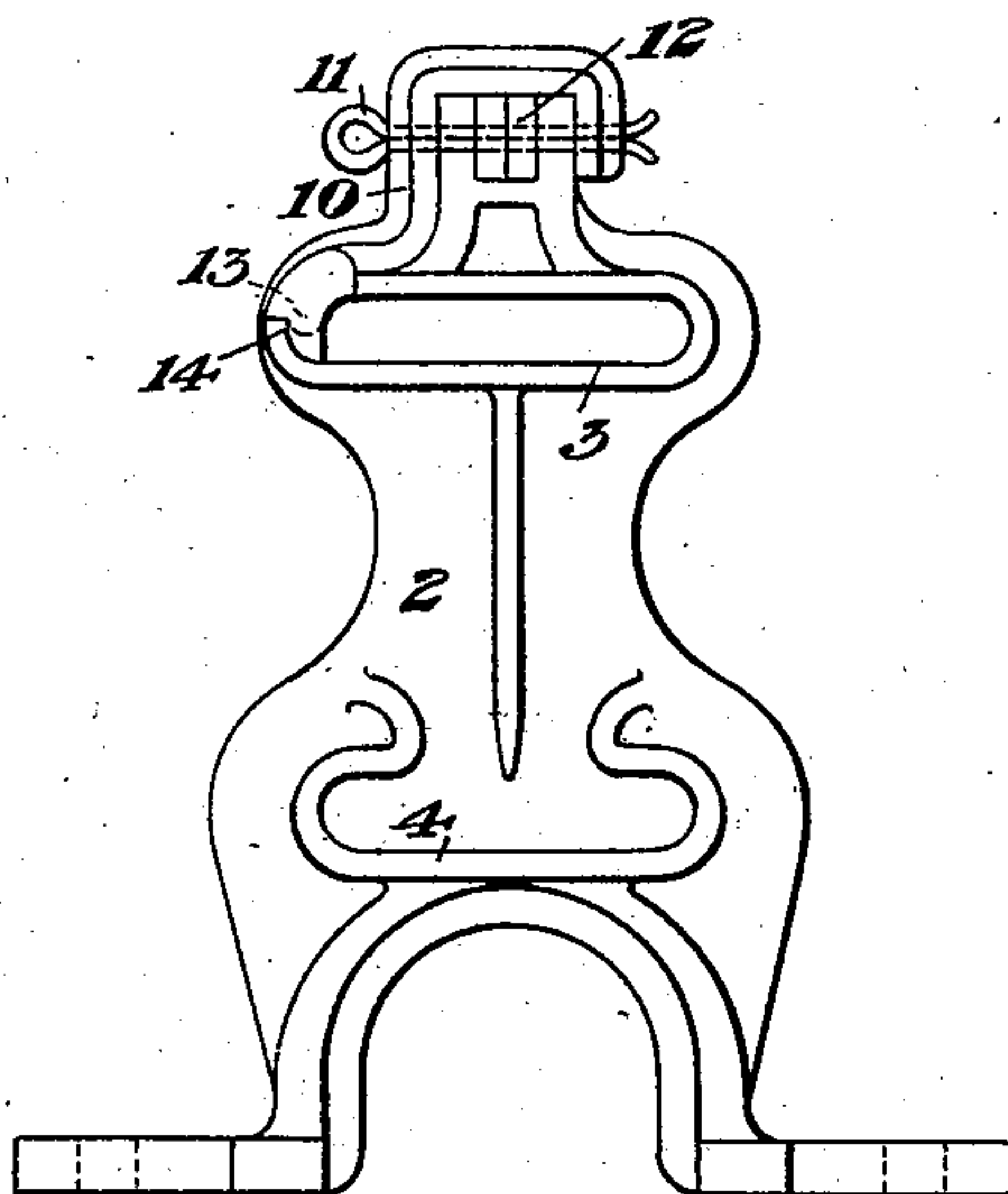


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHRISTOPHER FELL PORTEOUS, OF WILKINSBURG, PENNSYLVANIA.

PIPE-CARRIER.

SPECIFICATION forming part of Letters Patent No. 724,735, dated April 7, 1903.

Application filed February 1, 1902. Serial No. 92,160. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER FELL PORTEOUS, of Wilkins township, county of Allegheny, State of Pennsylvania, have invented a new and useful Pipe-Carrier, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of my improved pipe-carrier, and Fig. 2 is a side elevation of the same.

My invention relates to antifriction pipe-carriers for operating railway switches and signals, and is designed to afford a double antifriction device of the universal type for this purpose.

My invention is especially designed to overcome the difficulties encountered in the use of pipe-carriers as at present constructed, in which the buckling of the pipe and binding upon the supporting-frame, due to sagging of the pipe or sinking of the foundation, are frequently met with and cause much trouble. I also overcome the disadvantages of the present carrier in which pins of different lengths are necessary to bind the stands together when forming a multiple-way device. These ends I accomplish by providing top and bottom antifriction-rollers between which the pipe is confined against lateral movement by the flanges of the rollers, but so arranged as to permit the free endwise movement of the pipe. I further provide the standards with runways for the pins of the rollers, so that the bearings for the pipe are practically frictionless.

My invention further consists in certain features of construction and combinations of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the drawings, 2 2 represent the side frames or standards of a one-way pipe-carrier, which may be secured in any suitable manner to a foundation or other support. To these standards other standards may be added when desired to form a multiple-way carrier, the inside standard or standards serving in such case as bearings for two sets of rollers. The standards 2 are provided with runways 3 and 4, which serve as the bearings for the upper and lower grooved antifriction-rollers 5 and 6. The pins or studs 7 and 8 of

the rollers are supported in the runways in such manner as to render their contact with the same practically frictionless. The lower bearings 4 are formed by a ledge or extension on each of the standards 2, provided with end portions which limit the movements of the pins 8. The opening 9 between the upper and lower grooved rollers 5 and 6 serves to confine the pipe in proper position, so that it cannot move laterally and bind upon the standards. A filler 10 fits over the upper end of each of the standards 2 and is secured to the same by a cotter-pin 11. The cotters 11 extend through the fillers, standards, and the binding-strap 12 and bind the parts together in a simple and effective manner. The fillers 10 are provided with notched end portions 13, which close the openings 14 in the standards 2, through which the pins 7 of the upper roller 5 are inserted and removed.

From the foregoing description the manner of assembling the device and its operation are apparent without further description.

By uniting the parts with a cotter in the manner shown and described the great pressure and strain due to sagging of foundations, and consequent shearing action upon the pin of the upper rollers, is taken from the filler and the cotter-pin and is borne on the solid casting. The flanged rollers keep the pipe from binding on the standards due to the lateral deflection of the pipe.

The advantages of my invention will be apparent to those familiar with the requirements of such devices. A universal pipe-carrier is afforded, as each section is complete in itself. It is therefore unnecessary to provide pins of different lengths to convert a single carrier into a multiple-way pipe-carrier, and by removing the filler 10 the upper and lower rollers can be taken out without interfering with adjacent lines of pipes.

Many changes will suggest themselves to the skilled mechanic and may be made in the form of arrangement of the parts without departing from the spirit and scope of my invention.

What I claim, and desire to secure by Letters Patent, is—

1. A pipe-carrier, comprising standards, having upper and lower roller-supporting bearings, rollers supported therein, a bind-

ing-strap uniting said standards at their upper ends, a removable piece adapted to close one end of one of said upper bearings, a cotter-pin adapted to secure said removable
5 piece and binding-strap to said standards, one of said lower bearings at least being constituted by laterally-projecting lip portions, open on their upper side, and adapted to receive the shaft or pin of the roller supported
10 thereby; substantially as described.

2. A pipe-carrier comprising standards having elongated upper and lower roller-supporting bearings, rollers supported thereby, removable pieces adapted to close one end of
15 said upper bearings and to permit the inser-

tion and withdrawal of the roller supported thereby, and locking devices whereby said removable pieces are secured to said standards, said lower bearings being constituted by laterally-projecting lip portions, open on
20 their upper side, whereby the pin or shaft of the lower roller may be inserted or withdrawn when the upper roller is removed from the standard; substantially as described.

In testimony whereof I have hereunto set
my hand. 25

CHRISTOPHER FELL PORTEOUS.

Witnesses:

W. L. MCDANIEL,

JAMES CHALMERS, Jr.