

(No Model.)

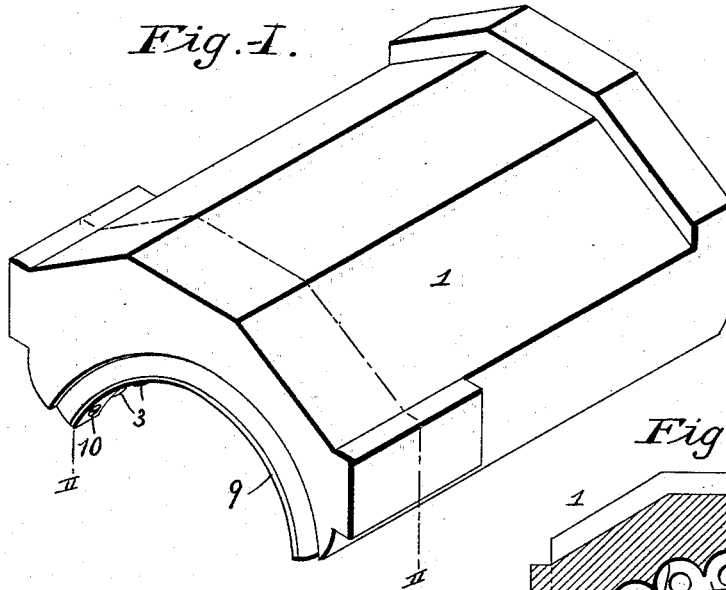
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T. VOEGTLI.  
ANTIFRICTION JOURNAL BEARING.

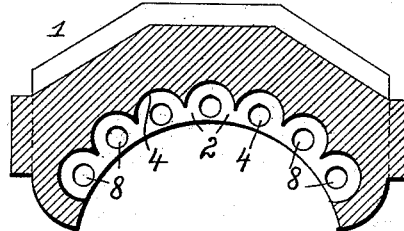
No. 524,920.

Patented Aug. 21, 1894.

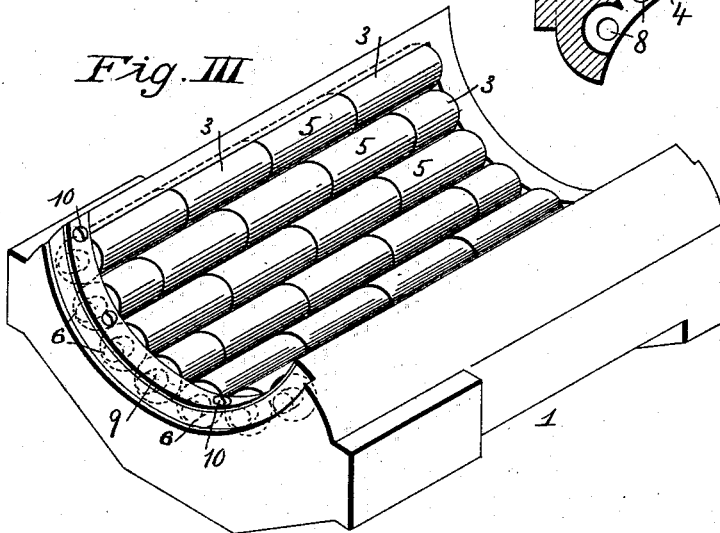
*Fig. I.*



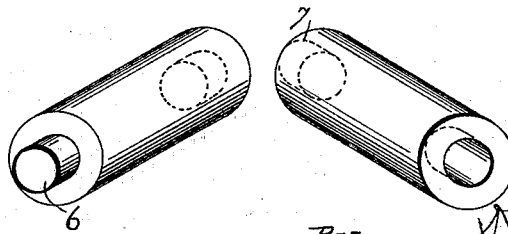
*Fig. II.*



*Fig. III.*



*Fig. IV.*



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Inventor  
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(No Model.)

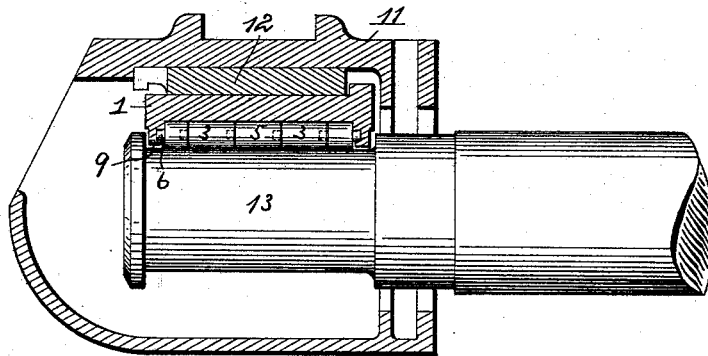
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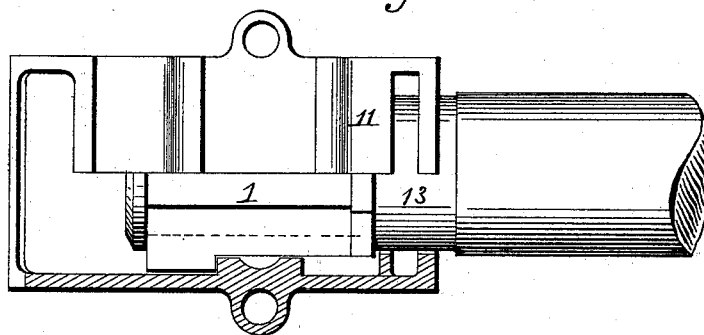
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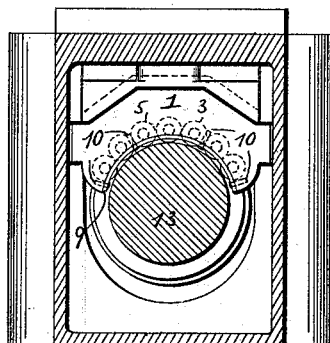
*Fig. V.*



*Fig. VI.*



*Fig. VII.*



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# UNITED STATES PATENT OFFICE.

THEODORE VOEGTLI, OF ROSEDALE, KANSAS, ASSIGNOR TO WILLIAM SMALL, JR., OF KANSAS CITY, MISSOURI.

## ANTIFRICTION JOURNAL-BEARING.

SPECIFICATION forming part of Letters Patent No. 524,920, dated August 21, 1894.

Application filed October 28, 1893. Serial No. 489,409. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE VOEGTLI, of Rosedale, county of Wyandotte, State of Kansas, have invented certain new and useful Improvements in Antifriction Journal-Bearings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in anti friction journal bearings; intended more especially for railway cars, as shown in the accompanying drawings, but which may be applied to various devices; and my invention consists in certain features of novelty hereinafter described and pointed out in the claims.

Figure I, represents a perspective of a lining block, or brass, as applied to journals for railway trucks. Fig. II, is a transverse section taken on line II, II of Fig. I. Fig. III, is an inverted view in perspective of the lining block, showing the anti-friction roller bearings, in position in said block. Fig. IV, represents an enlarged detailed perspective of the anti friction roller. Fig. V, represents a longitudinal vertical section of the journal box, showing the position of the axle, lining block and rollers in the lining block. Fig. VI, is a top view of the journal box, with a portion of the top plate of the journal box broken away. Fig. VII, represents an end view of a journal box, the portion being in section to more clearly show the position of the lining block and axle.

Referring to the drawings: 1, represents the lining block, preferably made in the form of, and of the same dimensions as the ordinary journal brass used in the construction and operation of railway trucks. The interior of the lining block is hollowed out, making a semi-circular recess 2, into which the anti-friction rollers 3, are placed, said opening near the respective ends of the block, being made of scalloped form, as shown at 4, to conform to the contour of the rollers.

The rollers 3, are placed within the block, in a series of rows 5, each of the rows being made up of a series of said rollers. Each of the rollers forming a row, is connected with the adjoining rollers of the row by means of

an extension 6, on each of the rollers, fitting into a circular recess 7, of the adjoining roller. The extensions 6, at each end of the row fitting into apertures 8, at the end of the lining block.

In order to place the rollers in position in the lining block, it is necessary that the apertures 8, at one end of the block, be formed into slots, into which the extensions 6, readily pass; this end of the rollers being held in place by means of a semi-circular band 9, preferably secured to the lining block by means of screws 10.

The end rollers 3, are made of variable lengths, so as to break joints, thus giving an equal bearing to the journal.

11, represents the ordinary railway truck journal box, and 12, the key or wedge for holding the lining block in position.

13, represents the axle on which the roller bearings travel.

I have described my invention as applied to journal boxes for railway trucks, but do not confine myself to this use, as the same may be used for journal bearings, for shafts, and various other devices.

I claim as my invention—

1. The combination of a block, a series of rollers having extensions and recesses by which they are supported at their adjacent ends, and a band; the rollers at one end of the series being supported by connection with the block and the rollers at the other end of the series being supported by the band; substantially as described.

2. The combination of a block, a series of rollers having extensions and recesses, at their adjacent ends by which they are supported intermediate of the ends of the block, and a band; the rollers at one end of the series being of different lengths alternately and supported by connection with the block, and the rollers at the other end of the series being of different lengths alternately and supported by the band; substantially as described.

3. The combination of a block, a series of rollers supported by each other at their adjacent ends, and a band secured to the block; the end rollers at one end of the series being of different lengths alternately and journaled in the block, and the end rollers at the other

end of the series being of different lengths alternately and supported by the band; substantially as described.

4. The combination of a block having a recess, rollers of variable lengths located therein, and having extensions and recesses whereby they are connected at their adjacent ends, and a band; the rollers at one end being supported by the block, and the rollers at the other end being supported by the band; substantially as described.

5. The combination of a block having a recess and rollers of variable lengths located therein, and having extensions and recesses, whereby they are connected with each other and with the block, the end rollers being supported at one end by the block and at the other end by the intermediate rollers, the intermediate rollers being supported by the extension on one roller entering the recess in the roller next adjacent thereto; substantially as described.

6. The combination of a block having re-

cesses, a series of rollers having extensions and recesses, and a band; the end rollers in each series being supported at one end by the band and at the other end by the intermediate rollers through means of the extensions entering the recesses and the intermediate rollers being supported in like manner through means of the extensions entering the recesses on adjacent rollers; substantially as described.

7. The combination of the block 1, having a recess 2, and apertures 8, the securing band 9, and the series of rows of rollers 5 having extensions 6, and recesses 7; the rollers of one row breaking joint with the rollers of the adjacent row; the end rollers being supported by the block and the intermediate rollers being supported on the end rollers; substantially as described.

THEODORE VOEGTLI.

Witnesses:

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