

(No Model.)

F. G. BOTSFORD.
JOURNAL BOX.

No. 513,075.

Patented Jan. 23, 1894.

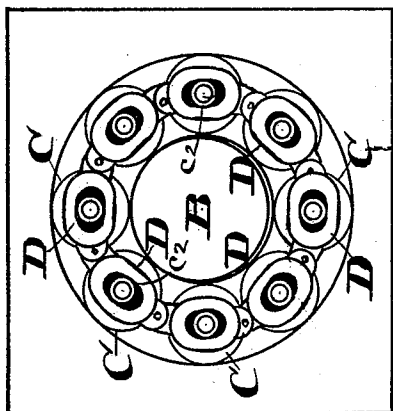


Fig. 2.

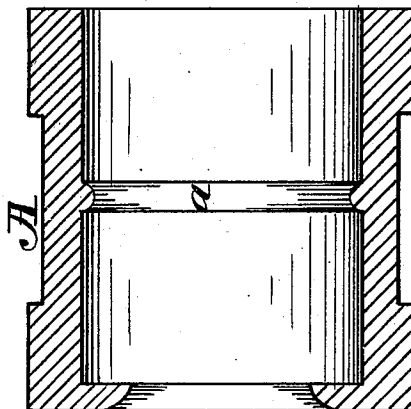


Fig. 3.

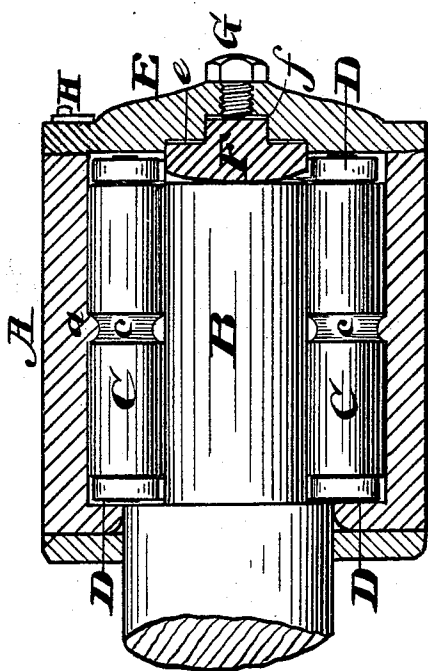


Fig. 1.



Fig. 4.

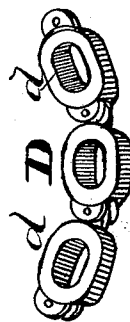


Fig. 5.

Witnesses,
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UNITED STATES PATENT OFFICE.

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JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 513,075, dated January 23, 1894.

Application filed February 4, 1893. Serial No. 461,059. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK G. BOTS-
FORD, a citizen of the United States, residing
at Cleveland, in the county of Cuyahoga and
State of Ohio, have invented certain new and
useful Improvements in Journal-Boxes, of
which the following is a specification.

This invention relates to journal boxes hav-
ing anti-friction roller bearings, and consists
in the new constructions and combinations of
parts substantially as hereinafter described
and pointed out in the claim.

In the accompanying drawings:—Figure 1
is a longitudinal section of a journal box
embodying my improvements. Fig. 2 is an
end elevation, with cap removed, showing
the construction and arrangement of the anti-
friction rollers and their link connections.
Fig. 3 is a longitudinal section of the journal
box. Fig. 4 is a detached view of one of the
rollers. Fig. 5 is a detached view of some of
the link connections for the journals of the
rollers.

A represents a journal box and B a journal.
The box has an annular rib, *a*, midway of its
inside surface.

C, C, are rollers arranged to revolve around
the journal, and are provided with annular
grooves *c*, midway of their length which en-
gage with the rib *a* and serve to hold the roll-
ers from shifting endwise. The rollers are
each provided with journals and may have
anti-friction rings *c*² upon them.

D D are annular chains composed of links
having elongated holes *d* in which the jour-
nals of the rollers C are placed and which
hold the rollers at approximately equal dis-
tances apart, but which will allow easement
of the rollers in their revolutions around the
journal B.

The outer end of the box is closed with a
cap E, and is provided on its inside surface
with a recess *e* in which is placed a convex
faced block F bearing against the end of the
journal B. The block F has a stud *f* and in
the cap E is provided a set screw G by means
of which the said block F may be adjusted to
the journal.

H is a hole in the cap E, covered by a suit-
able cover, designed for the introduction of
oil into the journal box.

Having described my invention, I claim—

In a journal-box the combination with the
rollers C, of chains each composed of slotted
links D., the links being connected together
by pivots independent of the journals of the
rollers, and the journals of the rollers extend-
ing through the slots in the links, substan-
tially as described.

FREDERICK G. BOTSFORD.

Witnesses:

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