

(No Model.)

R. OLIVER.
FRAME FOR CONVEYER BELTS.

No. 452,191.

Patented May 12, 1891.

Fig. 1

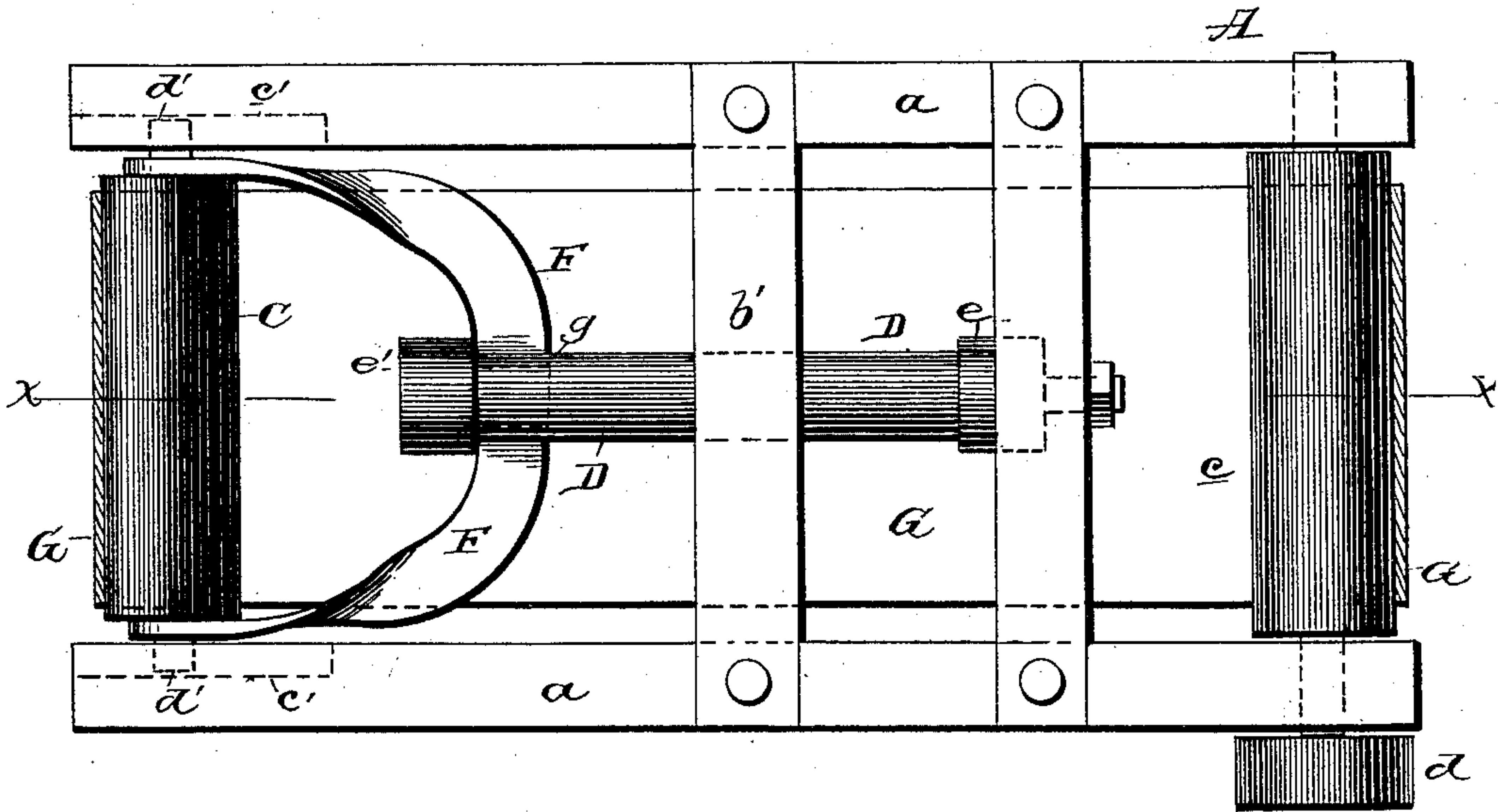


Fig. 2

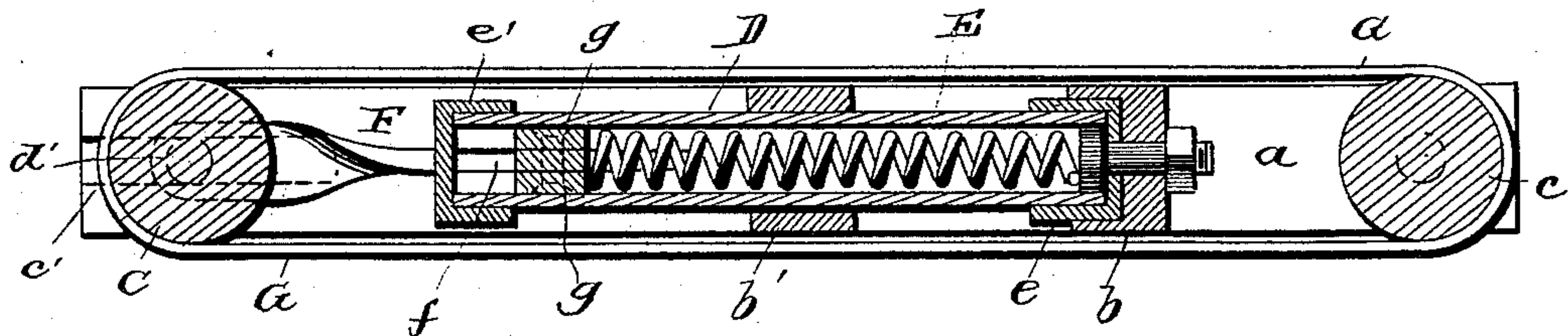
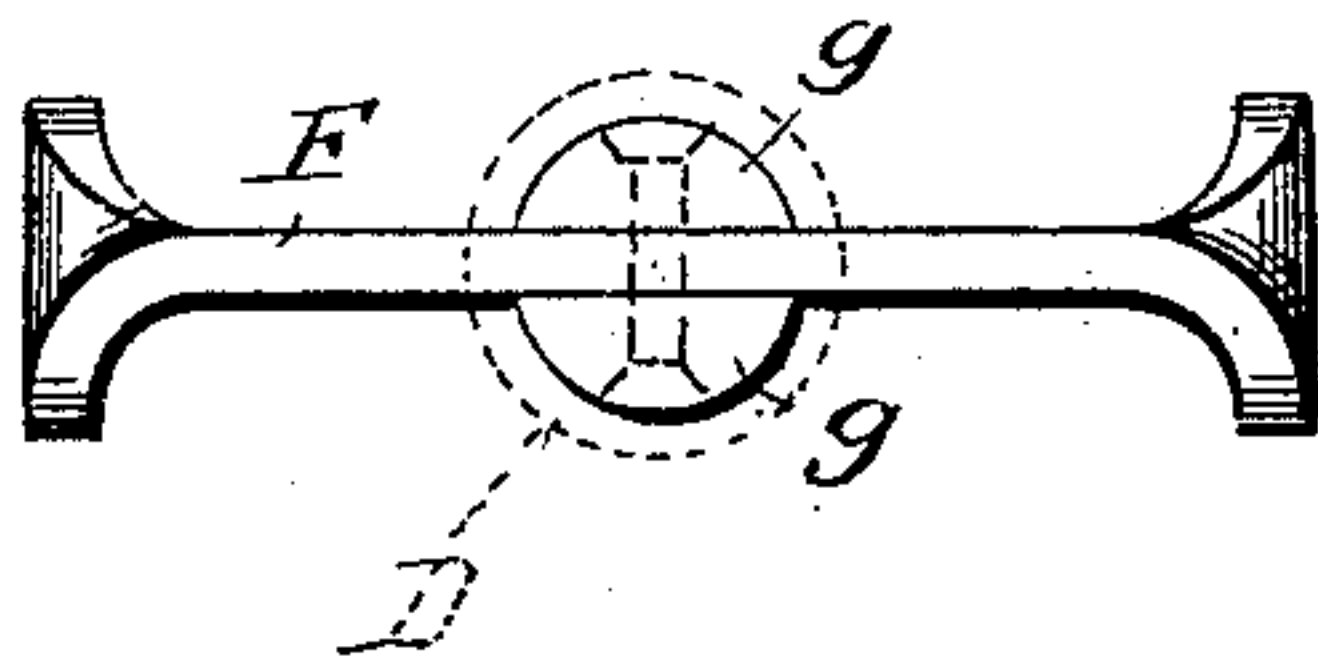


Fig. 3



Witnesses

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REVILO OLIVER, OF CHATSWORTH, ILLINOIS.

FRAME FOR CONVEYER-BELTS.

SPECIFICATION forming part of Letters Patent No. 452,191, dated May 12, 1891.

Application filed February 14, 1891. Serial No. 381,470. (No model.)

To all whom it may concern:

Be it known that I, REVILO OLIVER, of Chatsworth, in the county of Livingston and State of Illinois, have invented certain new and useful Improvements in Frames for Con-
5 and useful Improvements in Frames for Con-
veyer-Belts; and I do hereby declare the fol-
lowing to be a full, clear, and exact description
of the invention, such as will enable others
skilled in the art to which it appertains to
10 make and use the same.

My invention relates to an improvement in
endless conveyer-belts for harvesting and
other machines, the object of the invention
being to provide simple and efficient means
15 whereby to maintain the proper tension of
the belt.

A further object is to construct an endless
conveyer-belt and frame carrying the same,
so that the belt may be tightened without the
20 employment of a tool of any kind.

A further object is to provide simple and
efficient means for yieldingly supporting one
roller over which the belt passes.

A further object is to provide simple means
25 for yieldingly supporting one roller over
which an endless belt passes, and so that both
ends of said roller will move in unison, and
thus maintain the belt in its proper position.

With these objects in view the invention
30 consists in the combination, with a frame, of a
roller yieldingly supported therein at one end,
a pipe or casing carried by said frame, a
spring in said pipe or casing, and a yoke con-
nected to the journals of the yielding roller
35 and passing through the pipe or casing and
bearing against the spring; and the invention
also consists in certain novel features of con-
struction and combinations and arrangements
of parts, as hereinafter set forth, and pointed
40 out in the claims.

In the accompanying drawings, Figure 1 is
a plan view illustrating my invention. Fig.
2 is a longitudinal sectional view of the same
on the line $x x$ of Fig. 1. Fig. 3 is a separate
45 view of the yoke which carries the yielding
roller.

A represents a rectangular frame compris-
ing longitudinal timbers $a a$ and cross-bars
 $b b'$, connecting said longitudinal timbers at
50 points intermediate of their length. In one
end of the frame a roller c is mounted in the

longitudinal timbers a and has one of its
journals extended for the reception of a gear-
wheel or band-pulley d , by means of which
motion may be transmitted to said roller. 55
The other ends of the longitudinal timbers a
are provided with slots c in their inner sides
for the reception of the journals d of a roller C .

Secured in a recess in the cross-bar b is a
cap e , preferably having its inner wall screw- 6c
threaded for the reception of a pipe or casing
 D , in which a spring E is located, the other
end of said pipe or casing being also provided
with a cap e' . At its forward end the pipe or
case D is provided with slots f , and through 65
these slots a yoke F , preferably flat and of
metal, is passed and adapted to bear against
the spring E . At the point where the yoke F
passes through the pipe or casing D it is
thickened or provided on opposite sides with 70
washers g , so that said yoke will be made to
work evenly in the pipe or case D , or, in other
words, so that one end of said yoke cannot
move faster or to a further extent than the
other. The free ends of the yoke F are pro- 75
vided with perforations for the reception of
the journals of the roller C , which pass loosely
through said perforations. The endless belt
 G is passed over the rollers c C , as usual. By
constructing the frame and supporting-rollers 80
of an endless conveyer, as above set forth,
said belt will be maintained always taut, and
any undue strain brought to bear on it will
be compensated for by the yielding roller, or,
more properly speaking, by the spring E . 85

A device thus constructed is very simple,
cheap, and easy to manufacture and effectual
in the performance of its functions.

It is evident that slight changes might be
made in the details of construction of my in- 90
vention without departing from the spirit
thereof or limiting its scope. Hence I do not
wish to limit myself to the precise details of
construction herein set forth; but,

Having fully described my invention, what 95
I claim as new, and desire to secure by Let-
ters Patent, is—

1. The combination, with a frame, of a roller
yieldingly supported therein and a roller
mounted in fixed bearings, a pipe or casing 100
carried by said frame, a spring in said pipe
or casing, and a yoke connected to the jour-

nals of the yielding roller and adapted to bear on the spring in the casing, substantially as set forth.

2. The combination, with a frame, a roller
5 mounted in fixed bearings at one end of said frame and a roller mounted in the other end and adapted to slide, of a pipe or casing, a cap secured to the frame and adapted to receive one end of said pipe or casing, a spring in
10 said pipe or casing, a cap on the other end of the pipe or casing, and a yoke adapted to pass through slots in the pipe or casing and bear on the spring, said yoke being connected at its free ends to the journals of the sliding
15 roller, substantially as set forth.

3. The combination, with a frame, a roller mounted in fixed bearings at one end of said frame and a roller mounted in the other end

of said frame and adapted to slide, of a pipe or casing secured to the frame, a spring in 20 said pipe or casing, and a yoke passing through slots in the pipe or casing and adapted to bear on the spring therein, said yoke being provided at its center where it passes through the pipe or casing with a thickened portion 25 and the free ends of said yoke being connected to the journals of the sliding roller, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscrib- 30 ing witnesses.

REVILO OLIVER.

Witnesses:

A. F. OSBORN,
W. W. SEARS.