

(No Model.)

W. COOPER.
RAIL JOINT.

No. 589,247.

Patented Aug. 31, 1897.

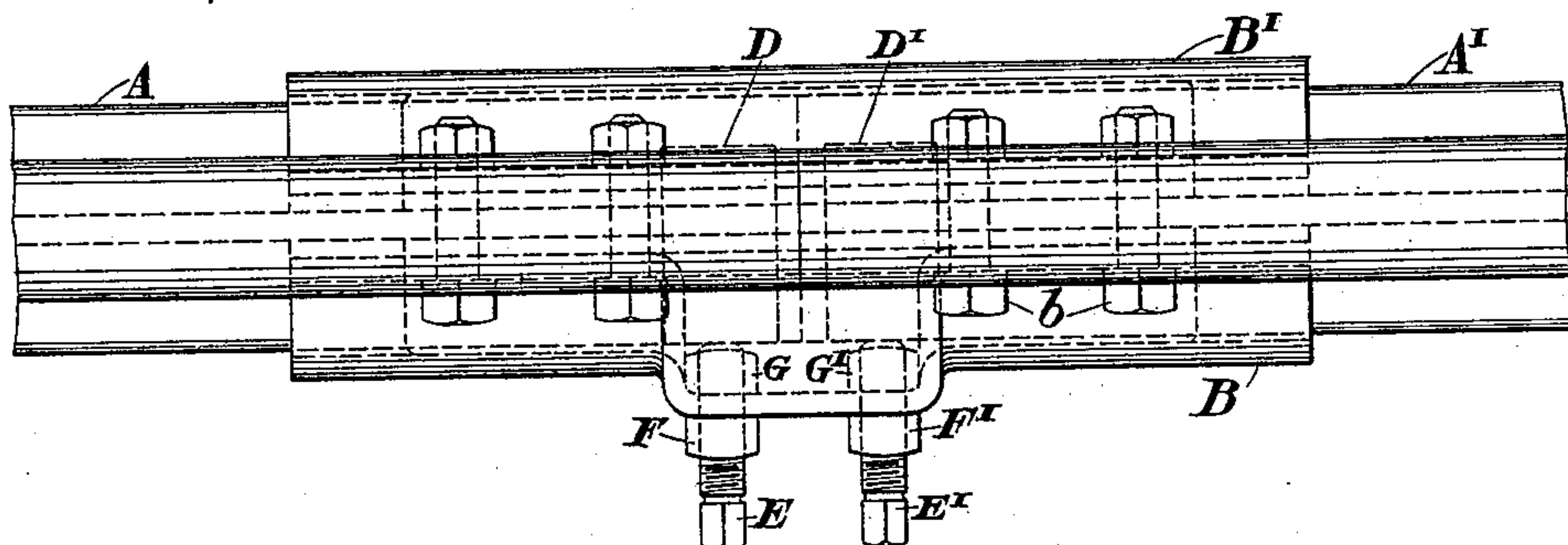


Fig. 1.

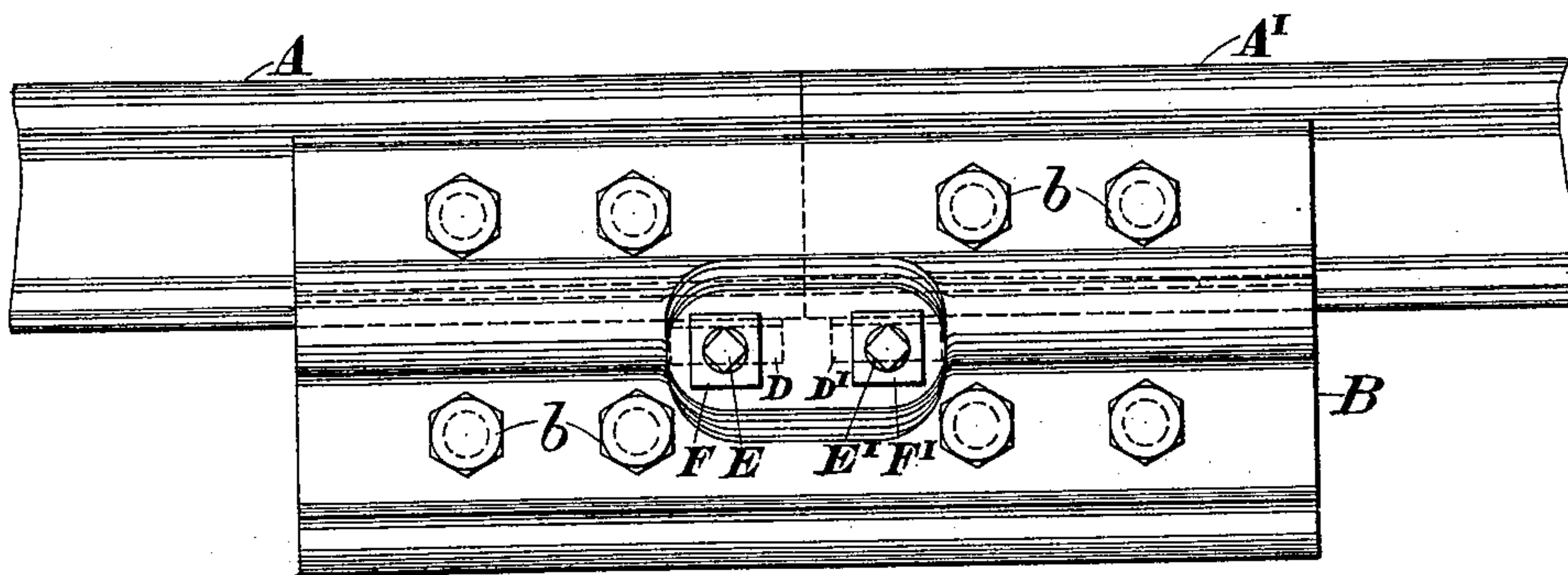


Fig. 2.

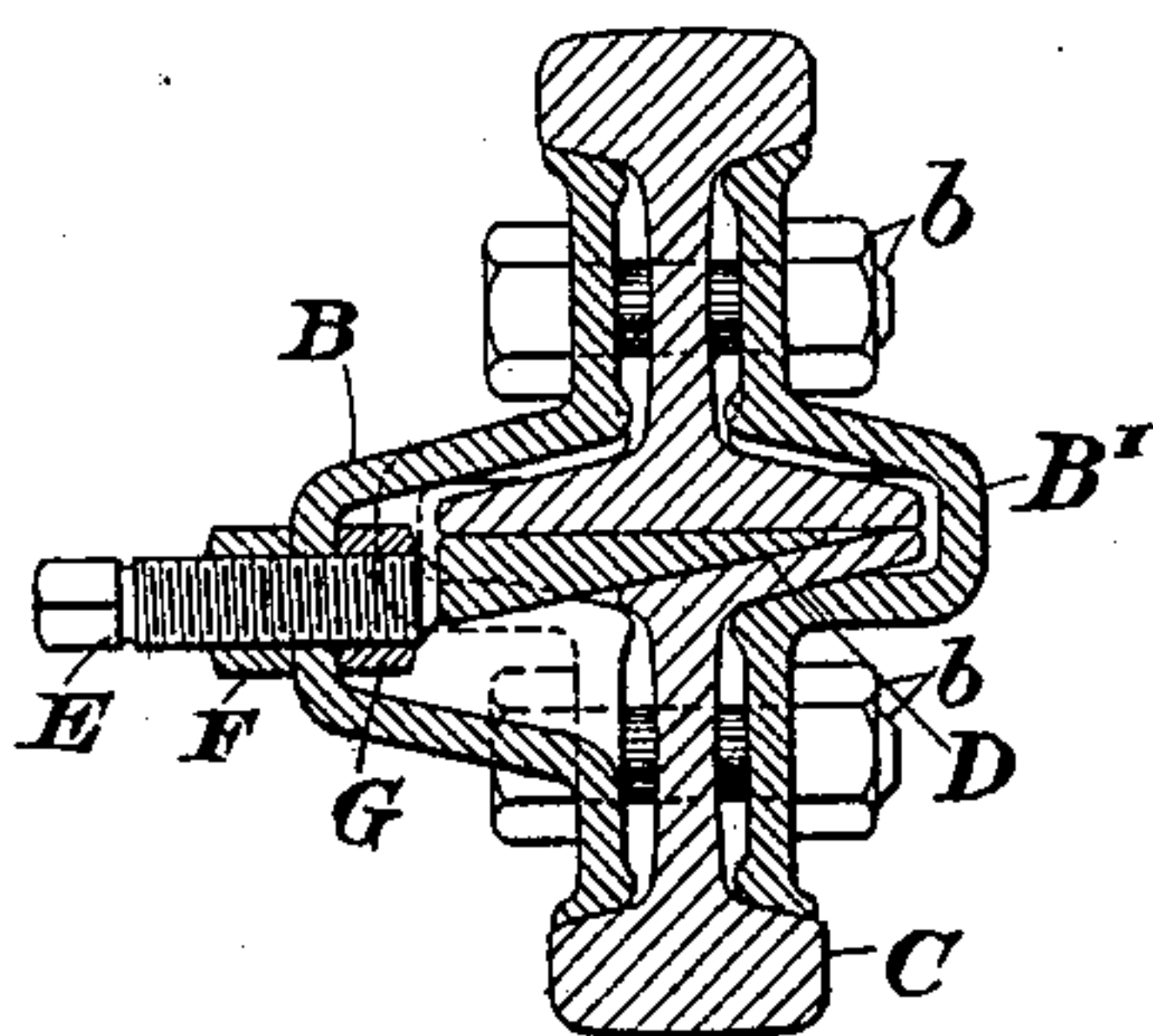


Fig. 3.

WITNESSES:
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WILLIAM COOPER, OF AUBURNDALE, MASSACHUSETTS, ASSIGNOR TO THE
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RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 589,247, dated August 31, 1897.

Application filed June 10, 1897. Serial No. 640,149. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM COOPER, of
Auburndale, Middlesex county, Massachu-
setts, have invented certain new and useful
5 Improvements in Rail-Joints, of which the
following is a specification.

My invention relates to rail-joints, and has
for its primary object the provision of a joint
constructed so as to allow the level of either
10 rail to be adjusted independently of the other
rail and without loosening the joints which
unite them. With this end in view I place
beneath the joints a subrail D, and between
the subrail and the track-rail I insert a wedge,
15 which may be driven home by a set-screw or
other suitable device. I so shape the central
portion of the splice-bars that they will not
bear against the upper side of the lower flange
of the track-rail. By this means the entire
20 pressure of the wedge is exerted to raise the
rail.

My invention therefore consists in the im-
proved construction, arrangement, and parts,
which I will now proceed to more particularly
25 describe, due reference being made to the
drawings, of which—

Figure 1 is a plan view, Fig. 2 a side view,
and Fig. 3 a sectional view, of one of my im-
proved rail-joints.

30 A and A' are the track-rails, which are
joined by the splice-bars B B', fastened by
the bolts b b in the usual manner.

C represents the subrail, which is placed
below the joint with head down. I have
35 shown this in the form of a T-rail, as short
lengths of discarded T-rails can be obtained
cheaply, but almost any shape is suitable for
this purpose. This subrail is channeled, as
clearly shown in Fig. 3, to receive the wedges
40 D and D', which bear on the under side of
rails A and A', respectively.

E and E' represent set-screws bearing
against D and D' and secured in place by
the nuts F and F' and G and G'.

45 Both splice-bars are formed in such a man-
ner that at their ends they engage the heads
and flanges of the track-rails and subrail, but
above the wedges they do not engage the flange
of the track-rail, but give sufficient clearance
50 for the necessary adjustment. The splice-bar

B is also spread sufficiently at this part to
allow room for the set-screws and nuts.

With this joint the track can be very readily
kept level at the joints, for in case any
“pounding” begins at a joint it is only neces- 55
sary to turn the set-screws E and E' suffi-
ciently to bring their respective rails in aline-
ment with the general level of the track.

It is clear that I am not limited to the spe-
cific construction which I have shown and 60
described, for many changes may be made in
the details thereof without departing outside
the scope of my invention.

Having thus described my invention, what
I claim, and desire to protect by Letters Pat- 65
ent, is—

1. In a rail-joint, the combination with the
rails of a wedge below each rail and means for
driving said wedge, and a pair of splice-bars
which do not bear on that part of the flange 70
of the track-rails which is above the wedges
and which uphold a base member which bears
against the under side of the wedges.

2. In a rail-joint, the track-rails and sub-
rail beneath the ends thereof in combination 75
with splice-bars which at their ends grip said
track-rails and subrail so as to check upward
or downward movement thereof but which at
their central portion do not bear against the
flanges of the track-rails, and means for ex- 80
erting a separative pressure between either
track-rail and the subrail.

3. The combination, in a rail-joint, of the
track-rails and the subrail, the splice-bars
engaging the said rails, the wedge between 85
each track-rail and the subrail, and the set-
screws and nuts for each wedge.

4. In a rail-joint, a splice-bar adapted to
engage the under side of the head of the
track-rail and the upper and lower portions 90
of a subrail, and having that portion adapted
to bear against the flange of the track-rail
inclined upwardly from each end toward the
center.

In testimony whereof I have affixed my sig- 95
nature in presence of two witnesses.

WILLIAM COOPER.

Witnesses:

RICHARD EYRE,
H. W. SMITH.