

(No Model.)

W. H. CHAMBERLIN.
TIE PLATE.

No. 538,817.

Patented May 7, 1895.

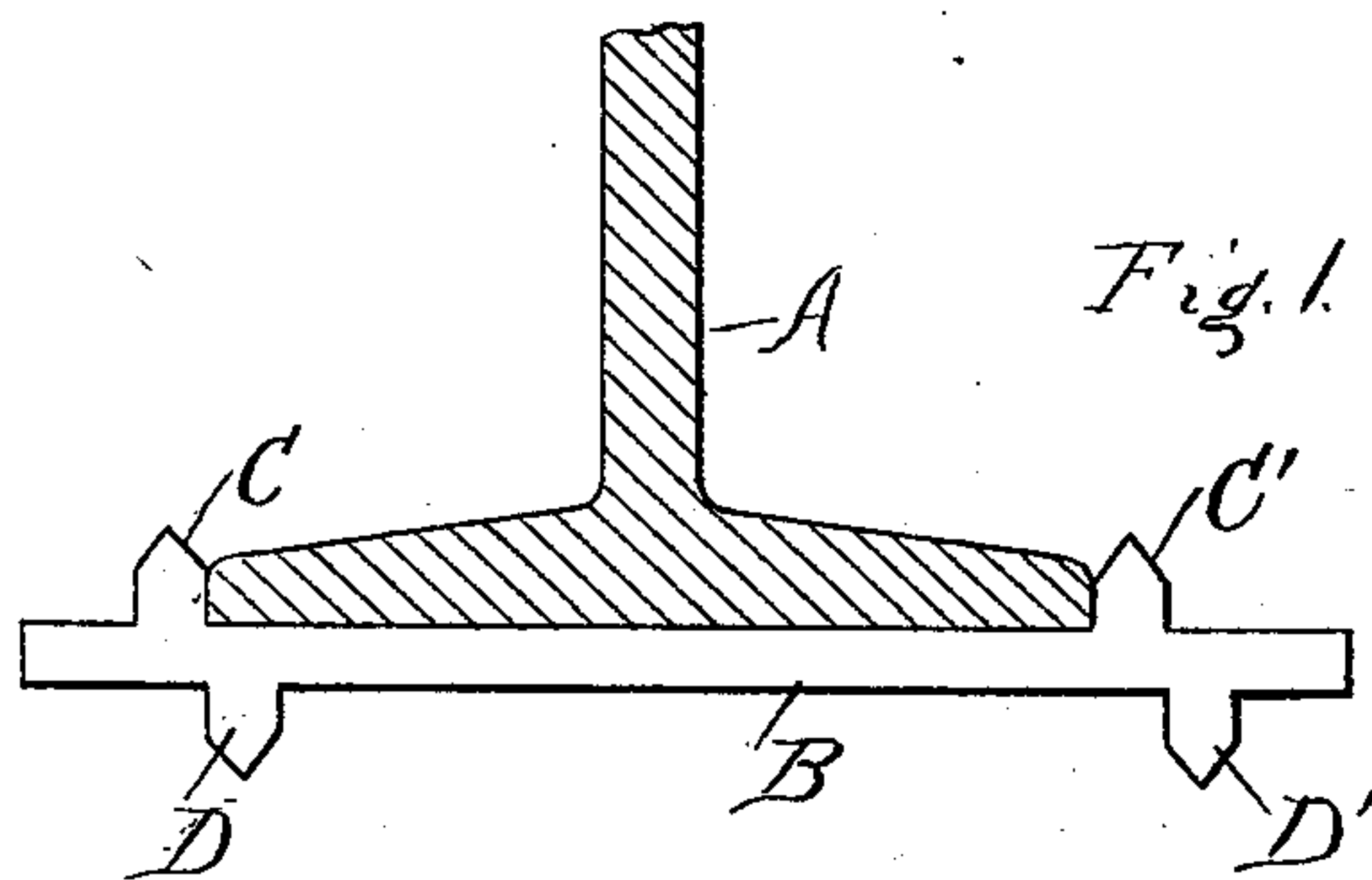


Fig. 1.

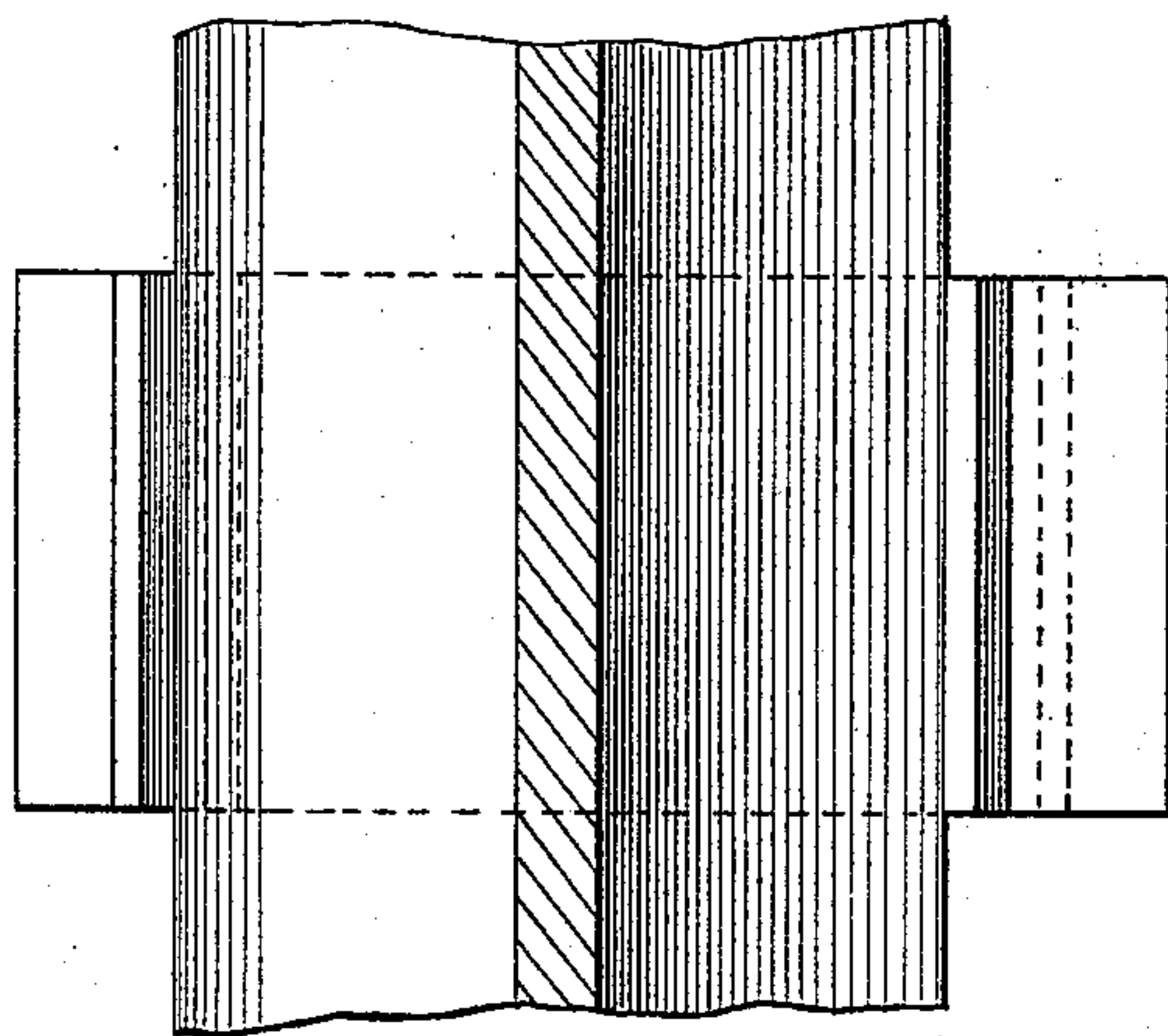


Fig. 2.

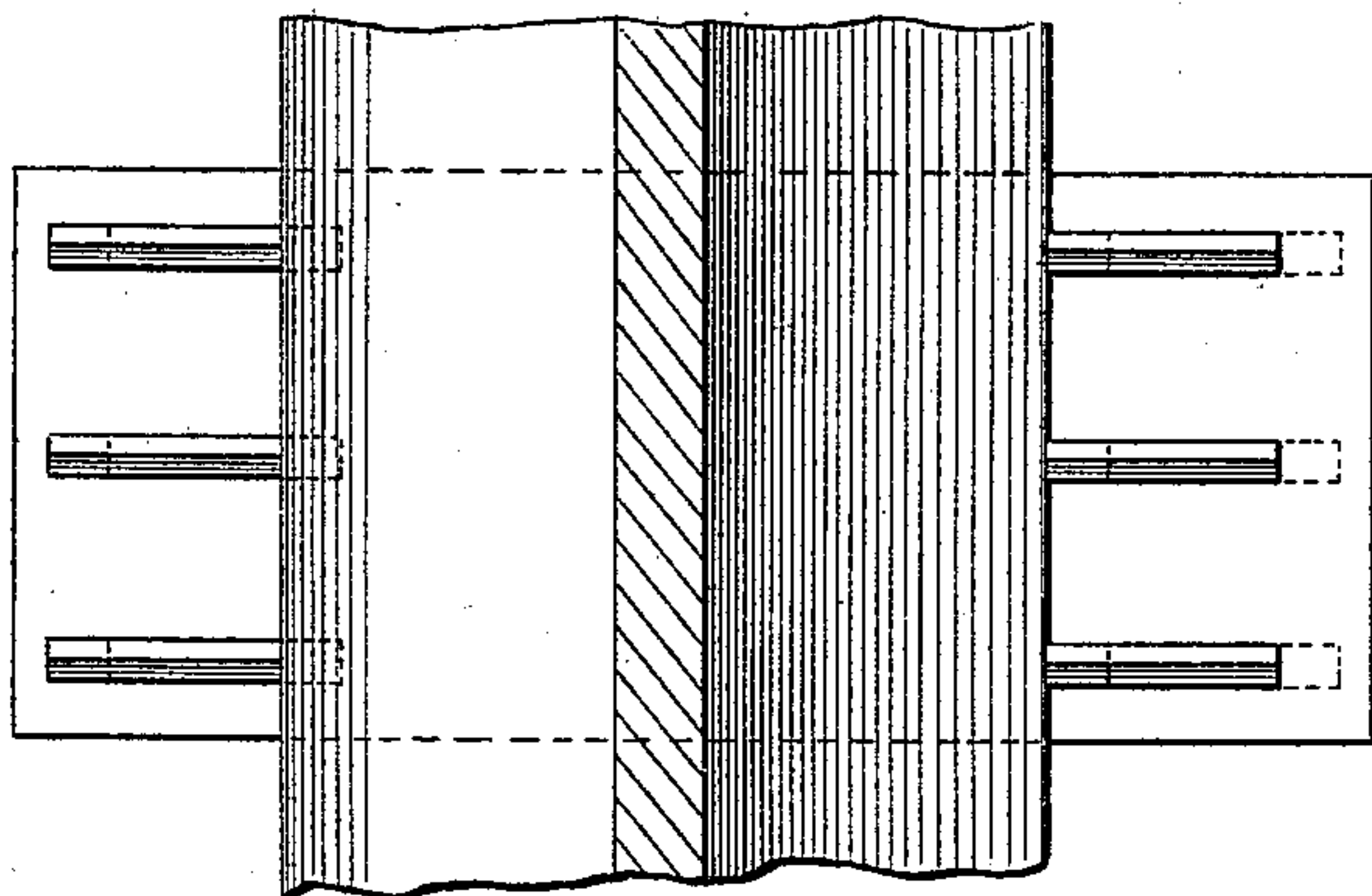


Fig. 3.

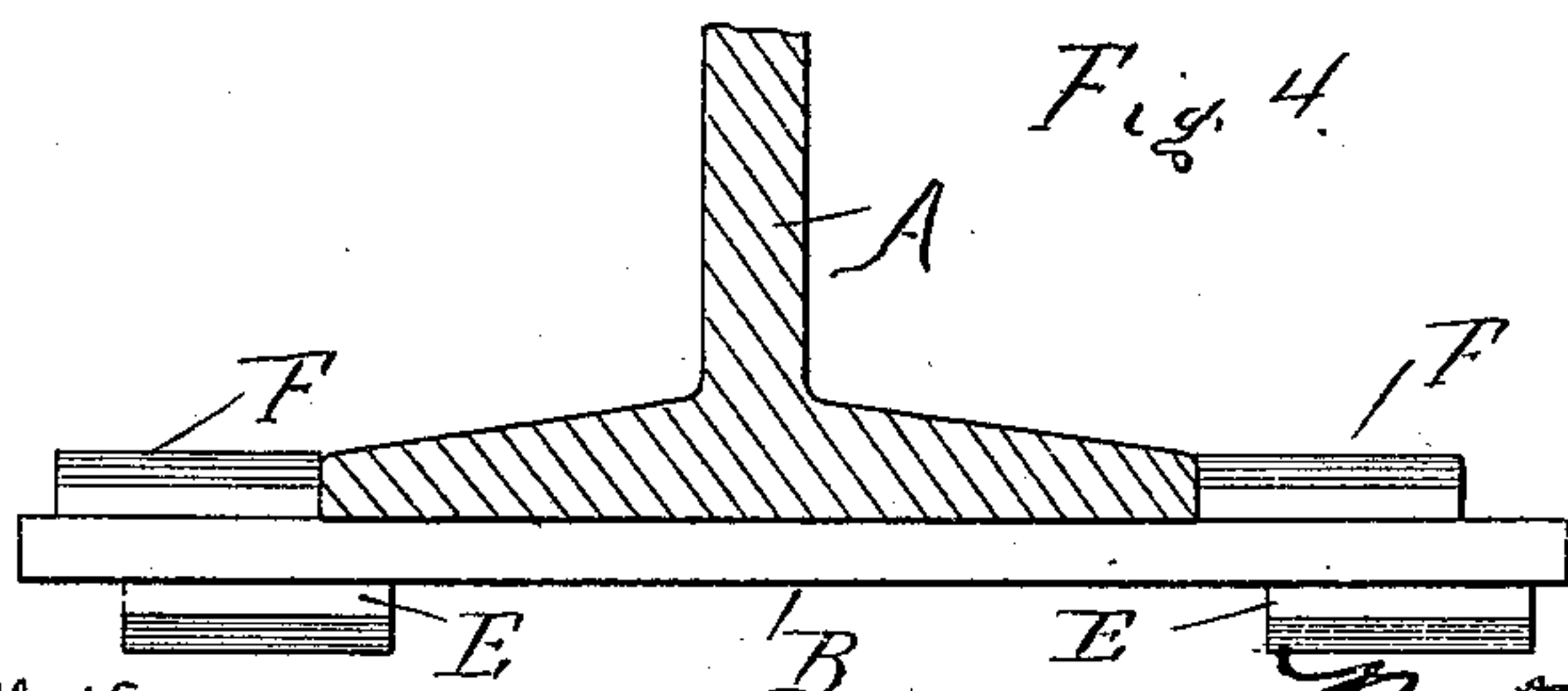


Fig. 4.

Witnesses.

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WALTER H. CHAMBERLIN, OF CHICAGO, ILLINOIS.

TIE-PLATE.

SPECIFICATION forming part of Letters Patent No. 538,817, dated May 7, 1895.

Application filed March 13, 1895. Serial No. 541,563. (No model.)

To all whom it may concern:

Be it known that I, WALTER H. CHAMBERLIN, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have
5 invented a certain new and useful Improvement in Tie Plates; and I declare the following 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, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a railway tie plate which shall be adjustable along the tie, for the purpose of returning the track rail to its normal gage after
15 the rail has by the repeated thrusts of the passing train forced the tie plate out of its original and normal position on the tie, and this permits the rail to also move from its normal or original position. It is of course obvious that if the plate moves or creeps along
20 the tie the tie engaging devices will compress the fiber in advance of them so that after the plate has once shifted, or shifted a short distance, it takes much more pressure or a much longer time to again shift it the same distance.

My invention has for its object the production of a plate which shall be so formed that
30 after the tie engaging devices have formed orifices or indentations in the tie and by a lateral or shifting-movement have compressed the fiber of the tie adjacent to these orifices, the plate by reversing its position and placing the face of the plate originally on the tie
35 upward to receive the rail while the side originally forming the rail seat is made the tie face, will so shift the relative location of the rail engaging devices as that the rail will be brought
40 back to its original or normal position.

The details of the construction of the plate will be hereinafter more fully described and claimed.

In the drawings, Figure 1 is a vertical section through a portion of a rail, showing an
45 edge elevation of my tie-plate. Fig. 2 is a plan view. Fig. 3 is a plan view of a variation. Fig. 4 is an edge elevation of a variation.

50 In carrying out the invention A represents the rail and B the plate.

C, C' are rail engaging flanges on the upper

side of the plate extending substantially parallel with each other, the rail being placed between them.

D, D' are tie engaging flanges on the under
55 side of the plate extending substantially parallel with each other, the flanges on the upper and lower sides being substantially duplicates of each other, that is to say, substantially the
60 same shape. It will be observed, however, that the flanges on the under side are not in the same vertical plane as the flanges on the upper side, the result being that if the plate is turned upside down on the tie the rail will
65 not be in the same relative position when placed between the rail engaging flanges as it was before the reversal of the position of the plate. It will thus be observed that the distance between the vertical plane of the two
70 sets of flanges—that is, the set on one side of the plate, and the set on the other side of the plate—will be the measure of adjustment of which the plate is capable.

In Figs. 3 and 4 I have shown a construction in which the tie engaging flanges extend
75 parallel with the grain of the tie instead of across the grain as in Figs. 1 and 2. E represents the tie engaging flanges while F represents the rail engaging flanges, the set E being
80 duplicates of the set F so far as size, shape, distance apart, &c., are concerned, the set E being not in the same vertical plane as the set F and therefore when the plate is turned
85 upside down the rail seat will not be in the same vertical plane as it was before the plate was turned upside down.

It is obvious of course that many different forms of tie engaging and rail engaging devices may be provided without departing from
90 the spirit of my invention which consists essentially in making the upper side of the plate substantially a duplicate of the lower side of the plate, the devices on the respective sides being out of the same vertical plane. 95

What I claim is—

1. A railway tie plate provided on its under side with a tie engaging device or devices, and on its upper side with a rail engaging device or devices, the device or devices on the
100 respective sides being substantially duplicates of each other, but out of the same vertical plane, substantially as described.

2. A tie plate provided on its under side

with tie engaging flanges and on its upper side with rail engaging flanges, the flanges on the under side being substantially duplicates of those on the upper side but out of the same vertical plane with each other, substantially as described.

3. A railway tie plate provided on its under side with flanges extending across the grain of the tie, substantially parallel with each other and on its upper side with flanges extending parallel with the rail and substan-

tially parallel with each other, the flanges on the under side being substantially the same shape as the flanges on the upper side, but not in the same vertical plane, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

WALTER H. CHAMBERLIN.

Witnesses:

FREDERIC S. WHEATON,
FLORENCE EMBREY.