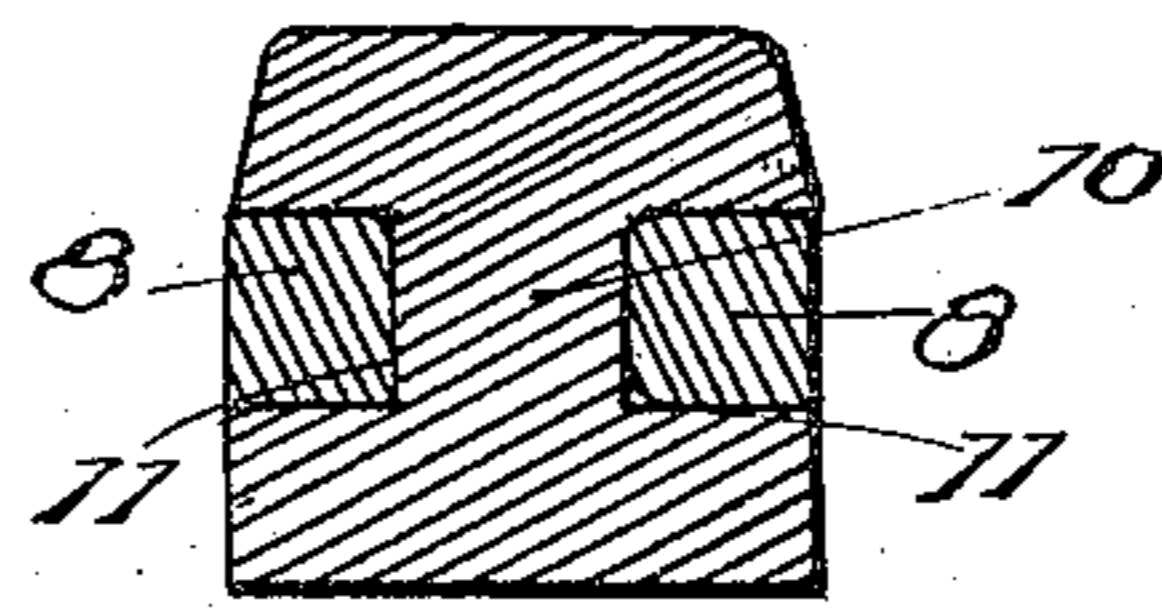
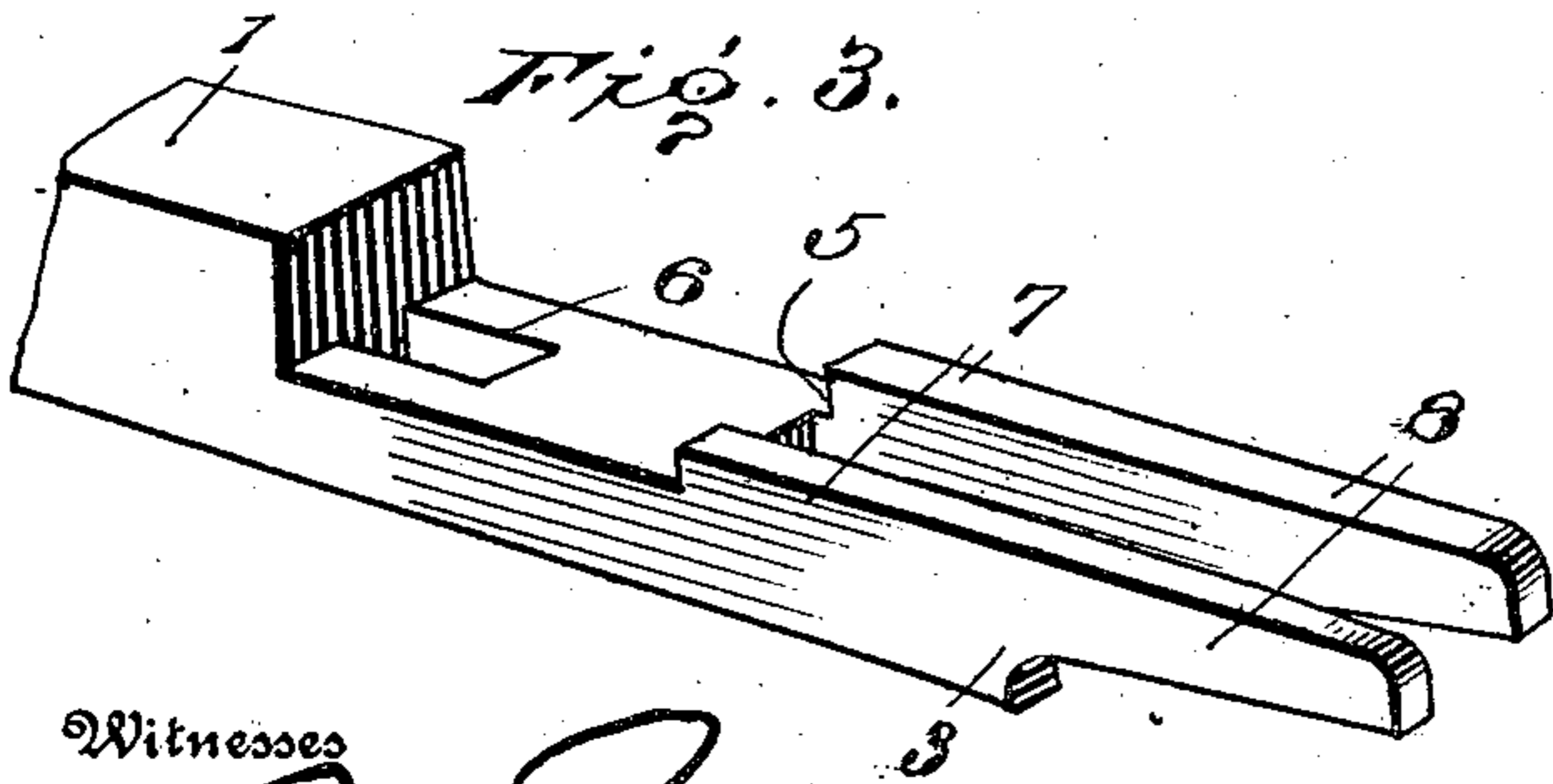
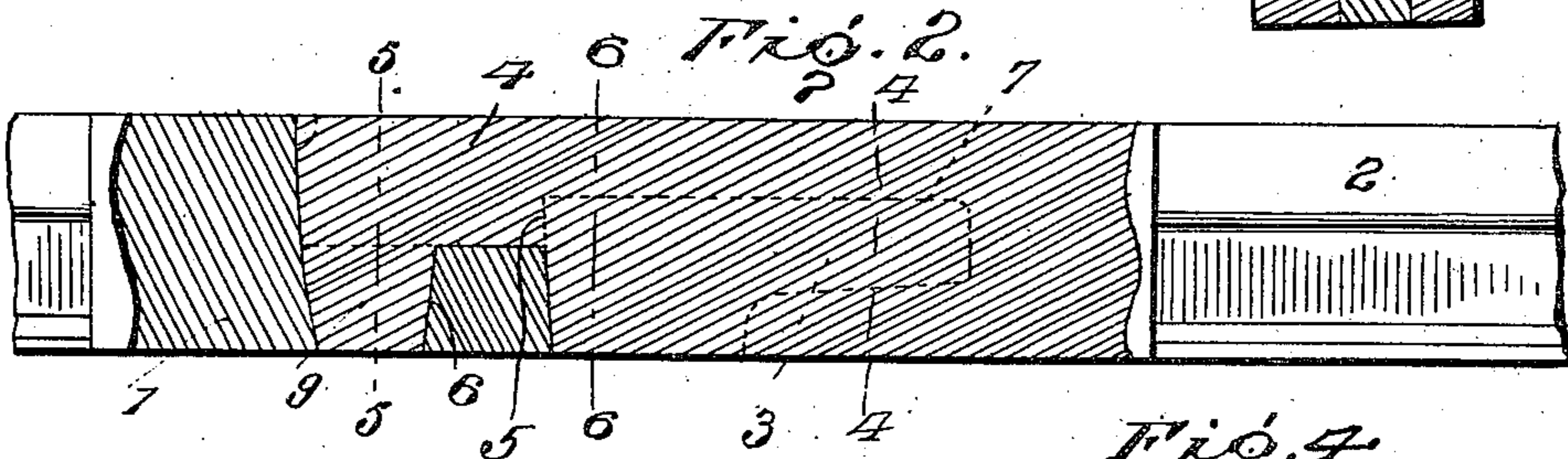
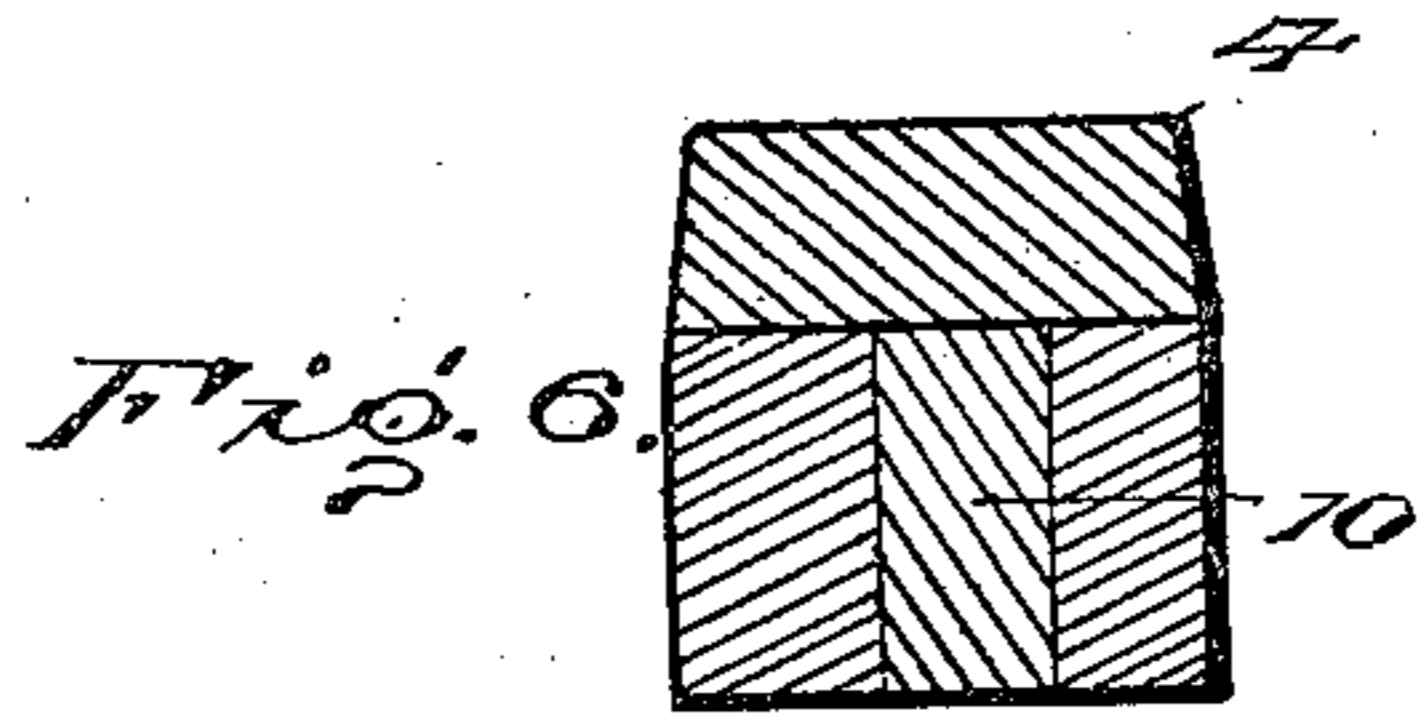
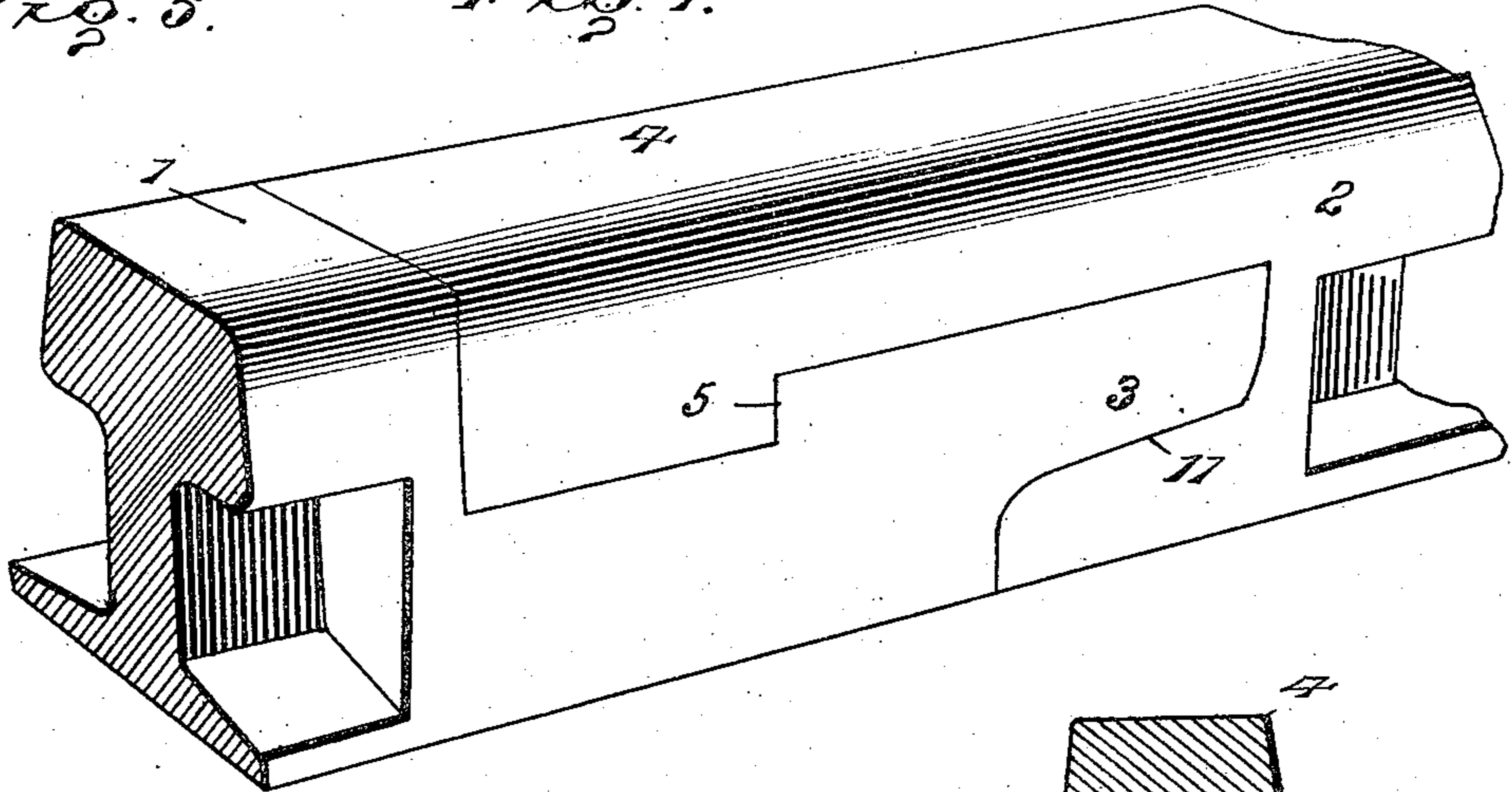
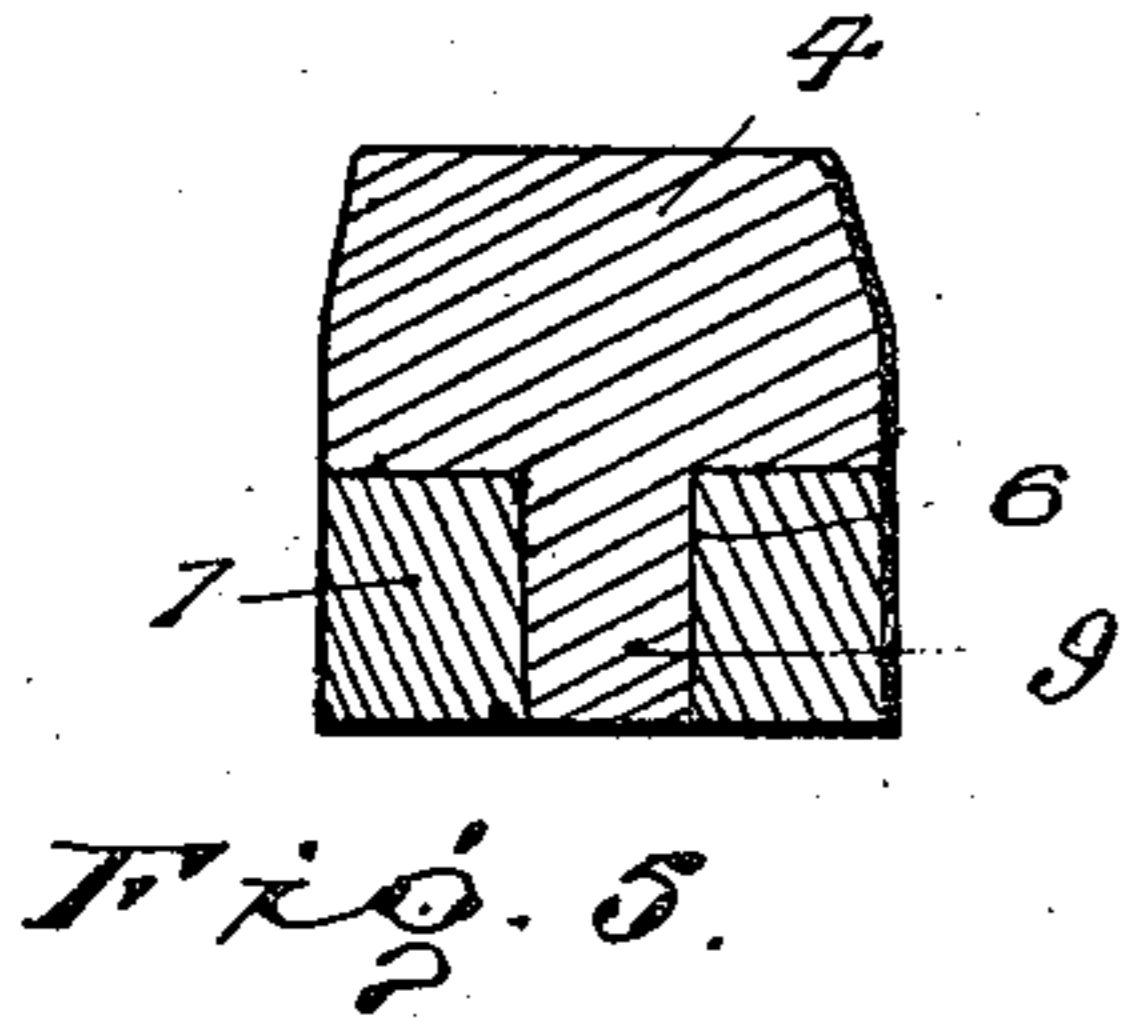


No. 896,418.

PATENTED AUG. 18, 1908.

J. R. SMITH.
RAIL JOINT.

APPLICATION FILED JULY 31, 1907.



Inventor
J. R. Smith

Witnesses

[Signature]
[Signature]

By

[Signature], Attorneys

UNITED STATES PATENT OFFICE.

JOHN R. SMITH, OF REDBOILING SPRINGS, TENNESSEE.

RAIL-JOINT.

No. 896,418.

Specification of Letters Patent.

Patented Aug. 18, 1908.

Application filed July 31, 1907. Serial No. 386,418.

To all whom it may concern:

Be it known that I, JOHN R. SMITH, citizen of the United States, residing at Redboiling Springs, in the county of Macon and State of Tennessee, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

The present invention contemplates certain new and useful improvements in rail joints and aims to provide a novel construction whereby a rigid interlocking connection is produced between the rail ends and the same are securely held against vertical, lateral and longitudinal displacement.

The object of the invention is to design a rail joint which is of simple construction and produces a rigid connection between the rail ends, thereby enabling the rolling stock to pass over the joint with a minimum amount of jolting and noise.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a rail joint embodying the invention. Fig. 2 is a longitudinal sectional view through the joint. Fig. 3 is a detail perspective view of one of the rail ends. Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 2. Fig. 5 is a similar view on the line 5—5 of Fig. 2. Fig. 6 is a similar view on the line 6—6 of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The numerals 1 and 2 designate the abutting rail ends which preferably have the web portions thereof enlarged laterally as shown. The rail end 1 is provided at its lower portion with an extension 3 while the opposite end 2 is formed with a corresponding upper extension 4. The forward end of the lower extension 3 is formed with an upwardly extending enlargement, the said enlarged portion terminating at its rear end in a transverse shoulder 5. A vertical opening 6 is formed at the base of the lower extension 3 while the enlarged end of the extension is bifurcated to form the two arms 7 having the lower portions of the ends thereof cut away to form the fingers 8. The upper extension 4 carried by the opposite rail end 2 has the end thereof provided with

a downwardly extending enlargement and the said enlarged portion terminates in a shoulder corresponding to and engaging the before-mentioned transverse shoulder 5 upon the lower extension 3. Projecting downwardly from the extremity of the upper extension 4 is a tongue 9 designed to be received within the vertical opening 6 at the base of the lower extension 3. The rear portion of the upper extension 4 carries a vertical web 10 designed to be received between the arms 7 of the bifurcated end of the lower extension and recesses 11 are provided at the rear end of the web 10 upon opposite sides thereof for the reception of the fingers 8.

For the purpose of connecting the rail ends the same are held at an angle to each other and the web 10 placed between the arms 7 at the bifurcated end of the lower extension 3. The rails are then moved longitudinally until the fingers 8 enter the recesses 11 when they are swung into alinement with each other, the tongue 9 entering the vertical opening 6. It will be readily apparent that the two rail ends are then rigidly locked against displacement and when spiked in position upon the ties in the usual manner are securely bonded together in such a manner as to be readily prevented from either pulling apart or lateral movement relative to each other.

Having thus described the invention, what is claimed as new is:

1. In a rail joint, the combination of abutting rail ends, one of the rail ends being formed with a lower extension provided at its end with an upwardly projecting enlargement, the said enlargement being bifurcated and the arms of the bifurcation terminating in fingers, while the opposite rail end is formed with an upper extension having the end thereof enlarged to interlock with the enlarged end of the lower extension, the upper extension carrying a web received within the bifurcated end of the lower extension, and recesses being formed upon opposite sides of the web for the reception of the fingers.

2. In a rail joint, the combination of abutting rail ends, one of the rail ends being formed with a lower extension provided at its base with a vertical opening and having the end thereof bifurcated to form arms terminating in fingers, while the opposite rail is formed with an upper extension having an interlocking connection with the lower extension of the first mentioned rail, the said

upper extension being provided at its ex-
tremity with a downwardly extending tongue
designed to enter the before mentioned ver-
tical opening and being also formed with a
5 web received within the bifurcated end of the
lower extension, recesses being formed upon
opposite sides of the web for the reception of
the fingers.

3. In a rail joint, the combination of abut-
10 ting rail ends, one of the rail ends being
formed with a lower extension having a ver-
tical opening at the base thereof and pro-
vided at its end with an upwardly extending
enlargement, the said enlarged end being bi-
15 furcated and the arms of the bifurcation ter-
minating in fingers, while the opposite rail
end carries an upper extension having the

end thereof enlarged to interlock with the
enlarged end of the lower extension, the ex-
tremity of the upper extension carrying a 20
downwardly extending tongue designed to
engage the before mentioned vertical open-
ing and the upper extension carrying a web
received within the bifurcated end of the
lower extension, recesses being formed upon 25
opposite sides of the web for the reception of
the fingers.

In testimony whereof I affix my signature
in presence of two witnesses.

JOHN R. SMITH. [L. s.]

Witnesses:

E. G. KING,
A. W. JENKINS.