

No. 791,139.

PATENTED MAY 30, 1905.

H. DORPMÜLLER.
 DEVICE FOR PREVENTING THE CREEPING OF RAILS.
 APPLICATION FILED NOV. 28, 1904.

Fig. 1.

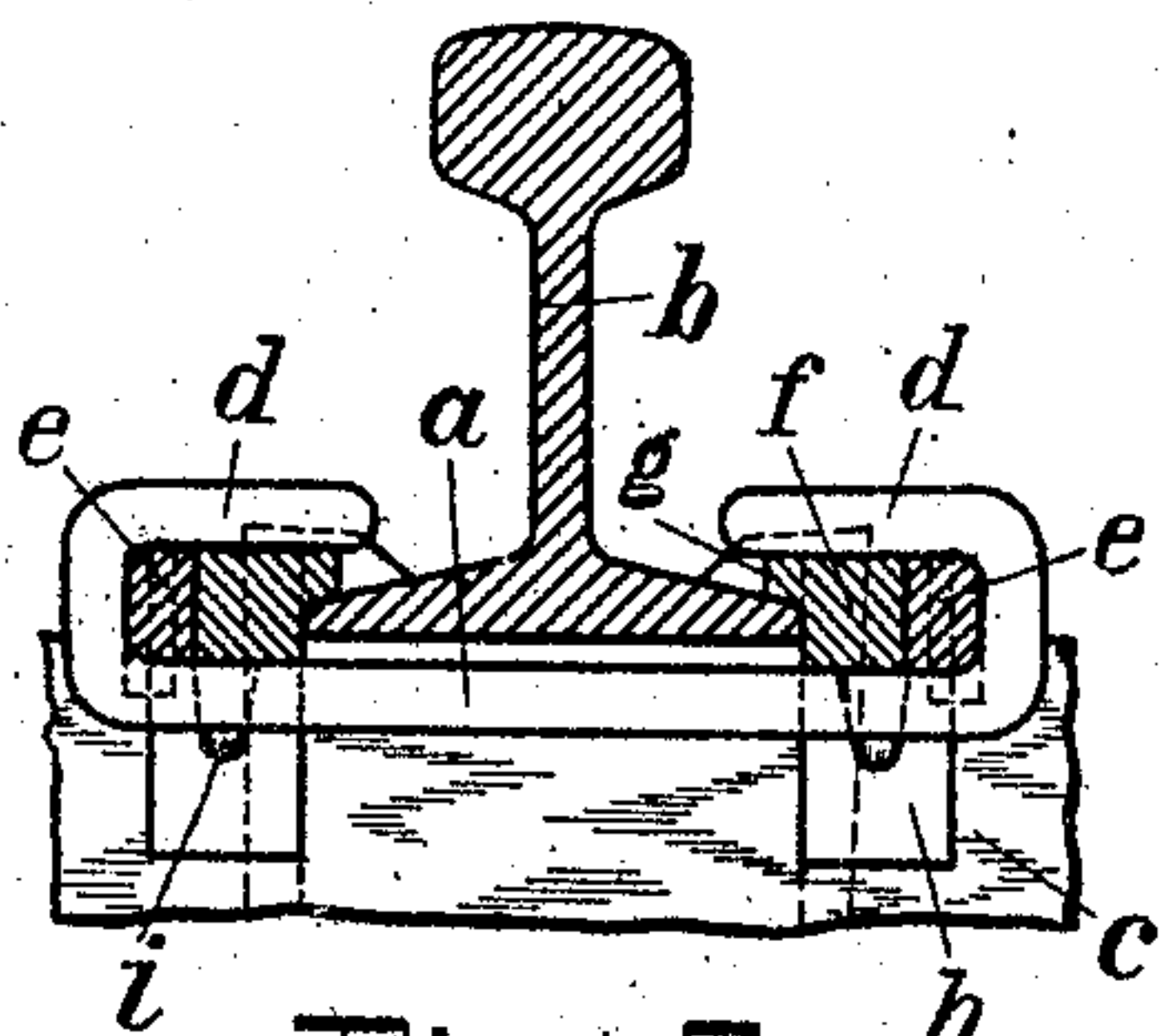


Fig. 3.

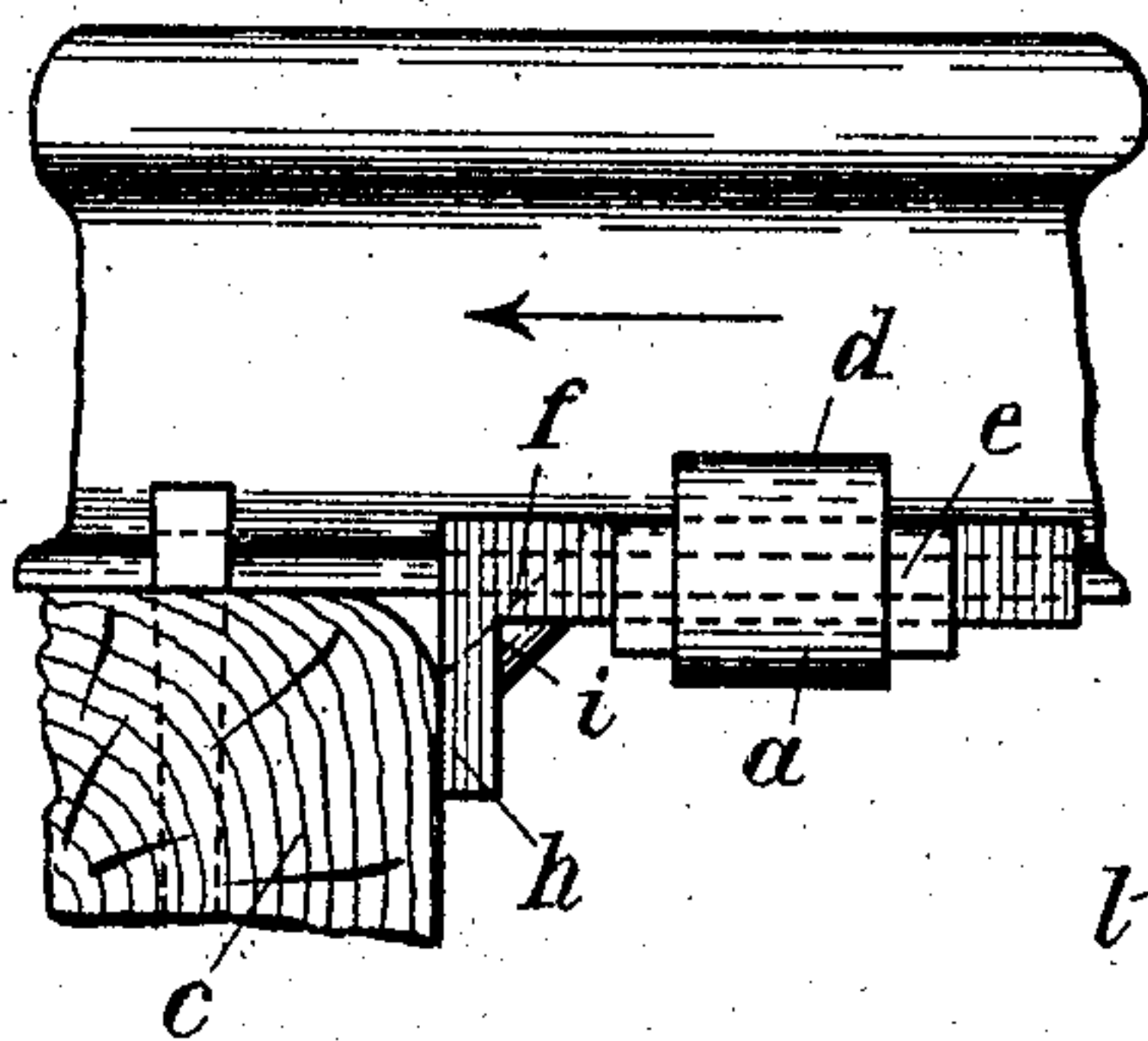


Fig. 4.

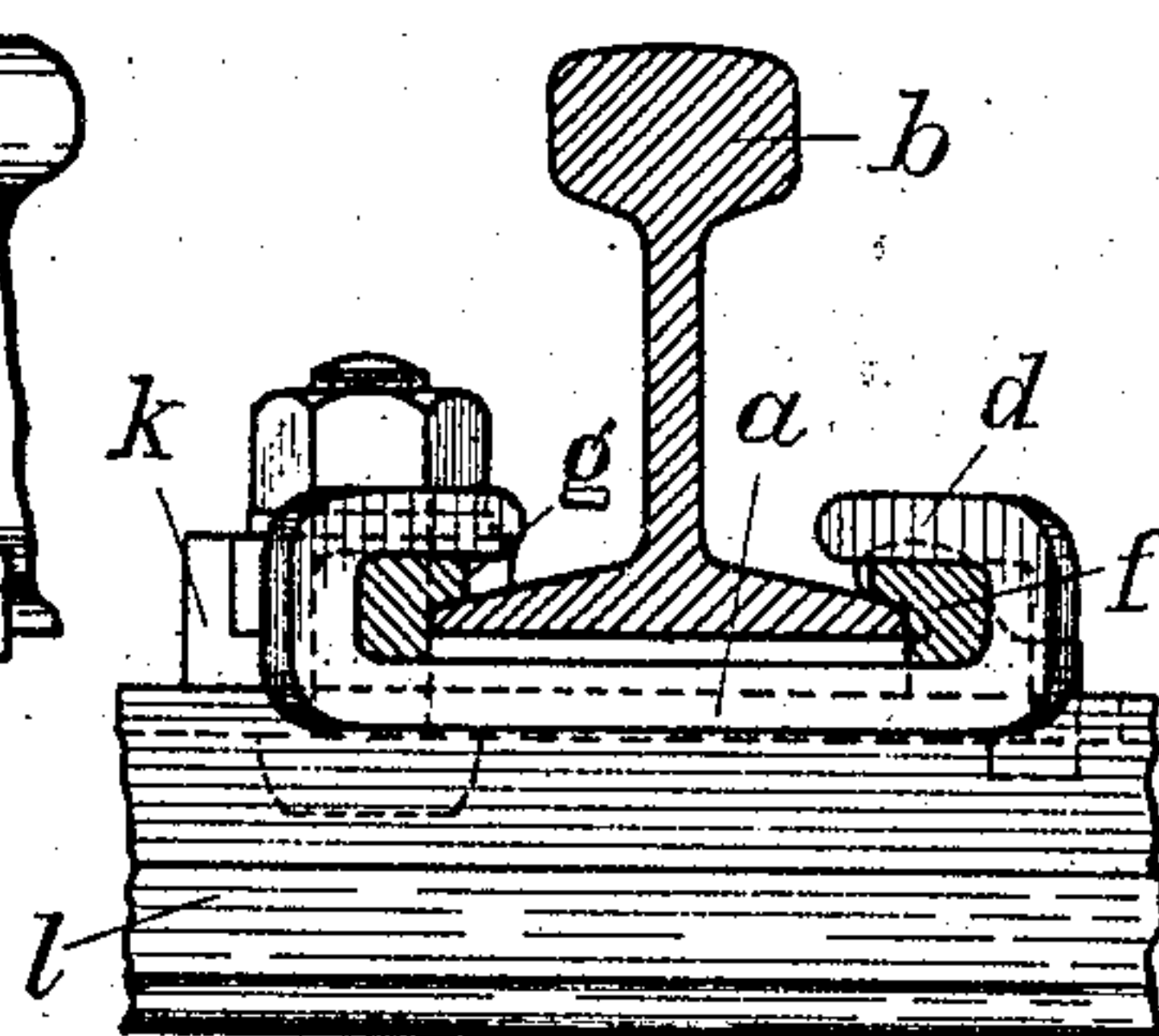


Fig. 2.

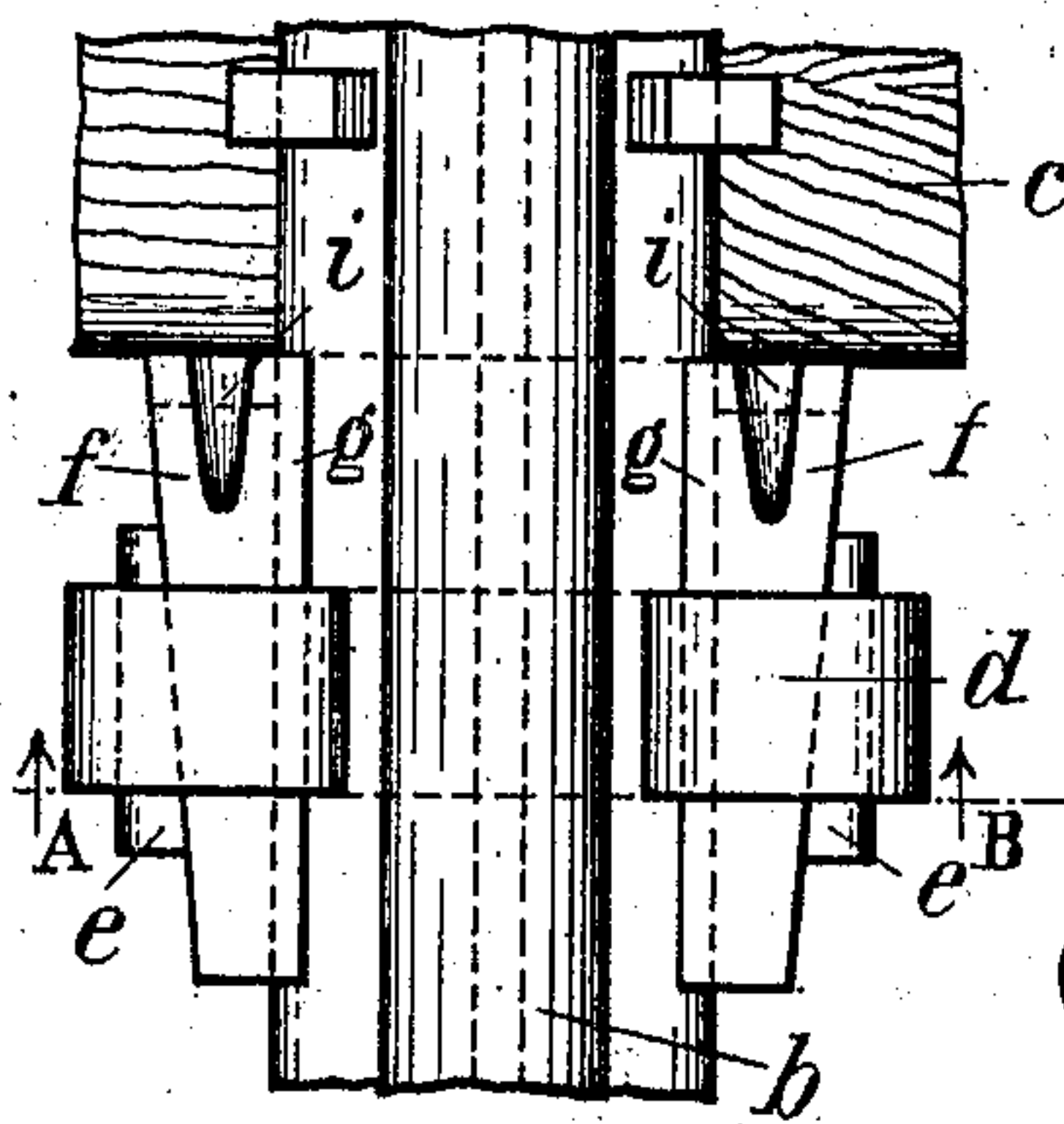


Fig. 8.

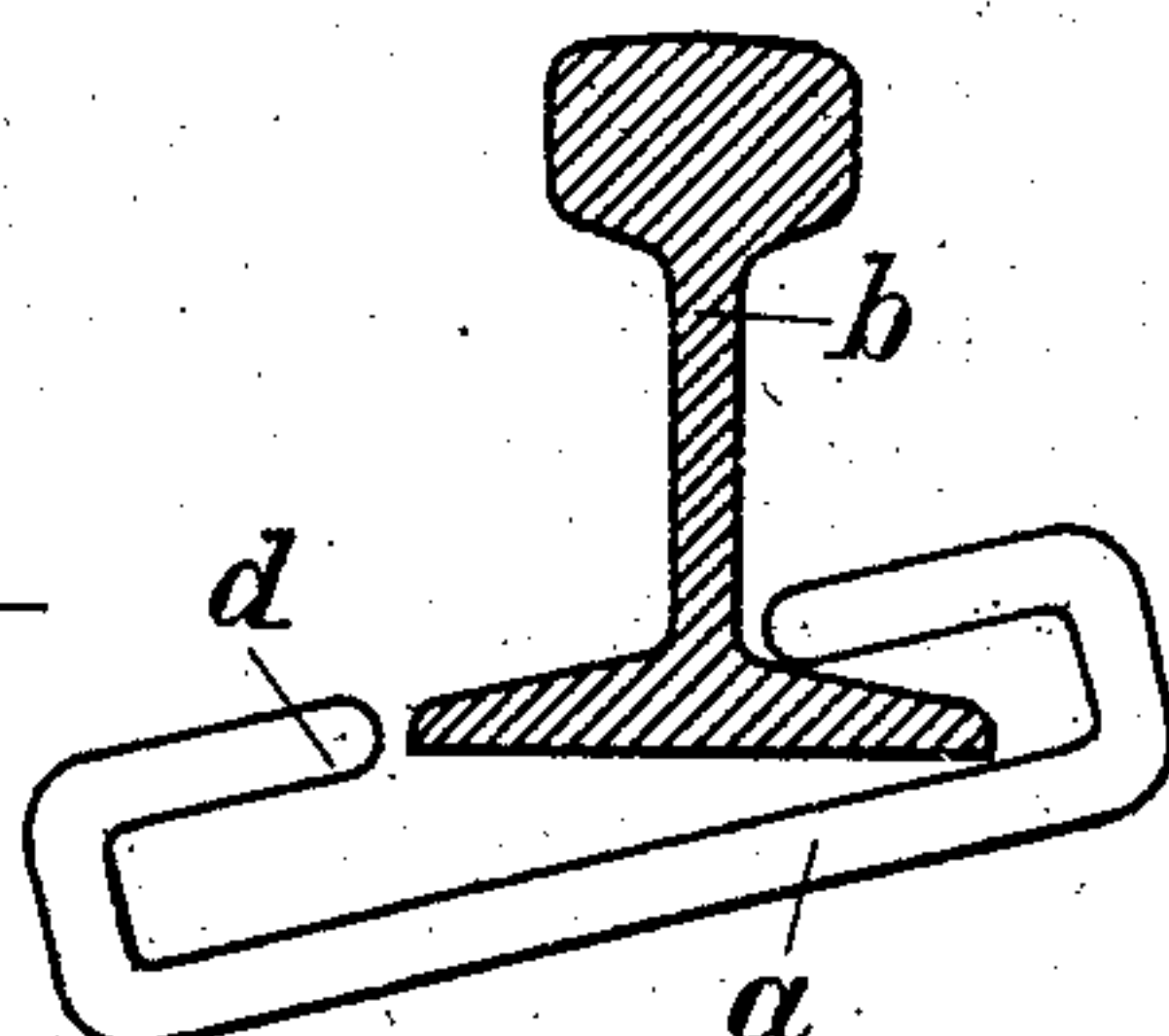


Fig. 5.

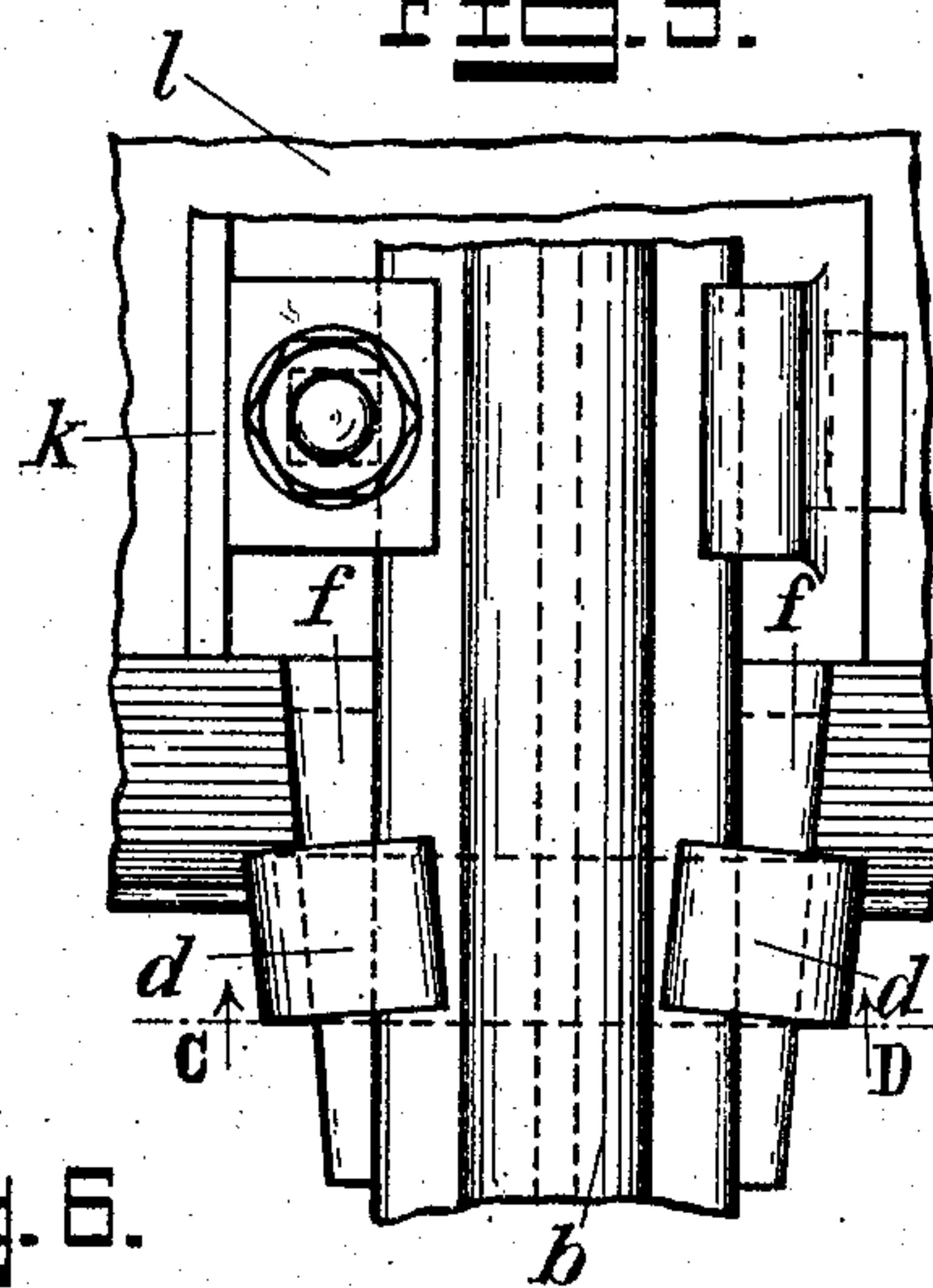


Fig. 7.

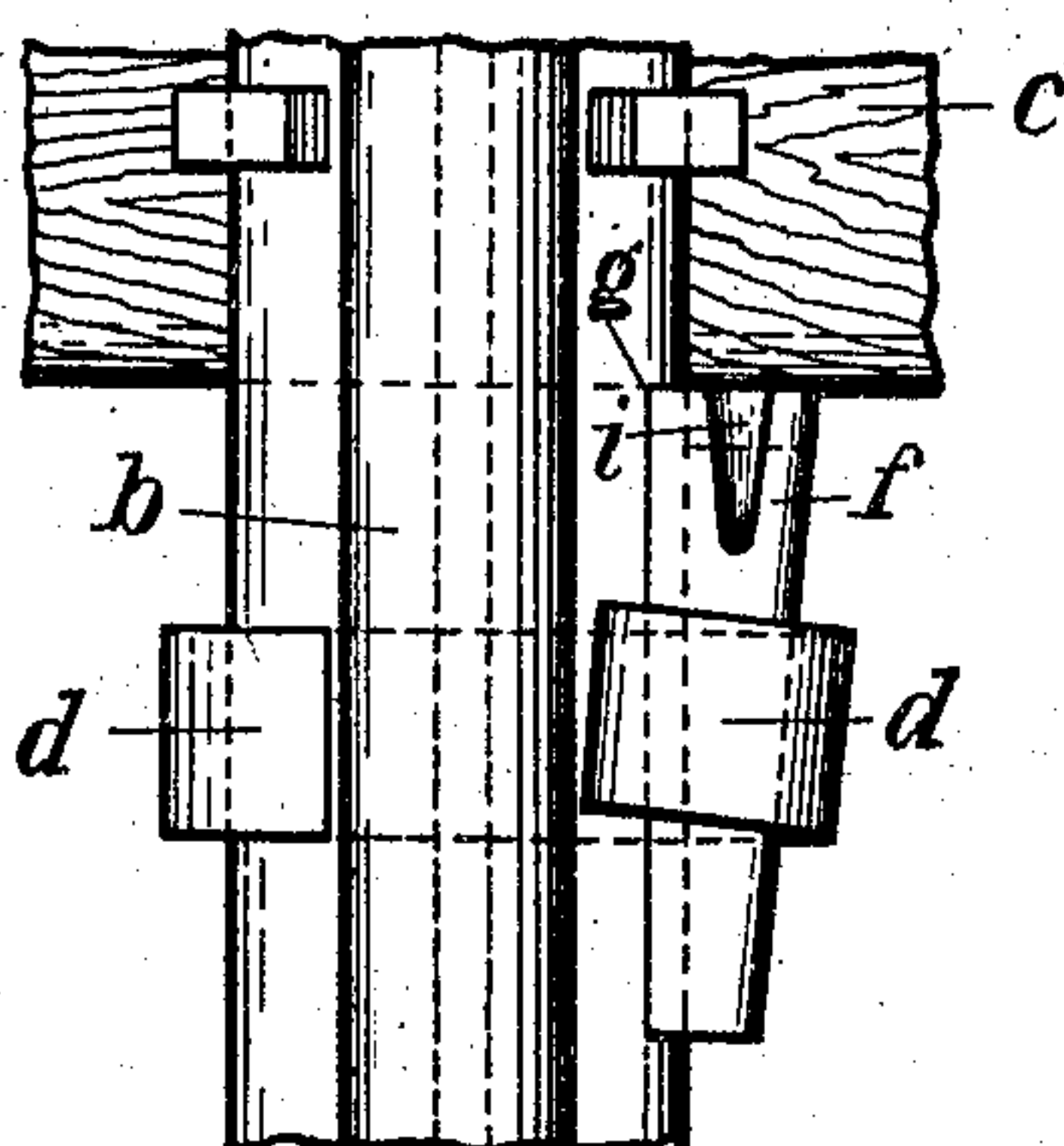
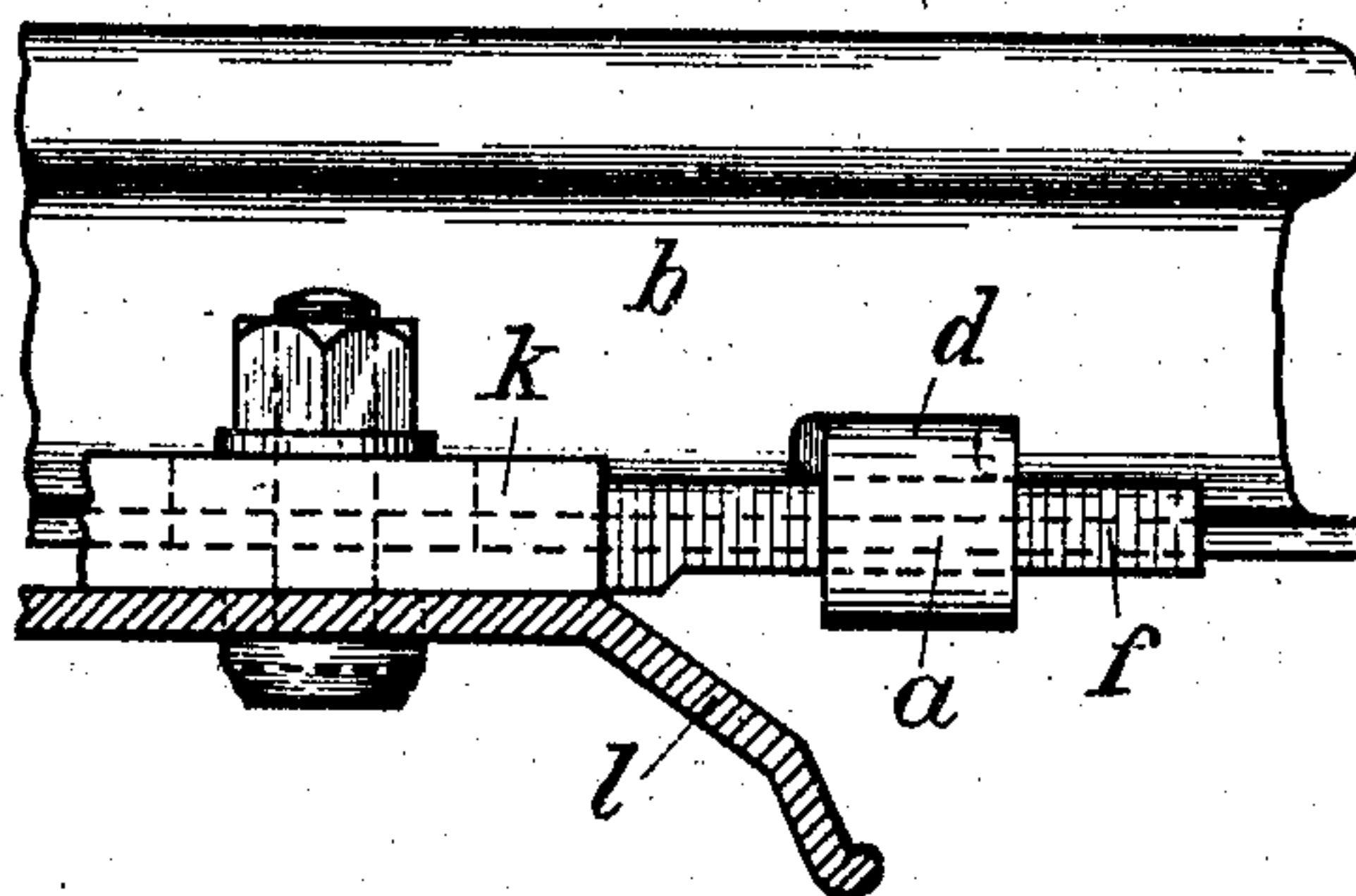


Fig. 6.



Witnesses.
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UNITED STATES PATENT OFFICE.

HEINRICH DORPMÜLLER, OF AIX-LA-CHAPELLE, GERMANY.

DEVICE FOR PREVENTING THE CREEPING OF RAILS.

SPECIFICATION forming part of Letters Patent No. 791,139, dated May 30, 1905.

Application filed November 28, 1904. Serial No. 234,546.

To all whom it may concern:

Be it known that I, HEINRICH DORPMÜLLER, a subject of the King of Prussia, German Emperor, residing at No. 36 Casinostrasse, Aix-la-Chapelle, in the Kingdom of Prussia, Empire of Germany, have invented certain new and useful Improvements in Devices for Preventing the Creeping of Rails; and I do hereby 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 make and use the same.

My present invention relates to a device for preventing the creeping of rails, and is an improvement on my former patent, No. 716,207, inasmuch as now the clamp placed upon the flange of a rail for holding the securing means can be put into position without raising the rail, which formerly was necessary to slip the clamp over the rail-flange. By means of this improvement it is made possible to provide existing railway-lines with the new device without disturbing the rails, as the clamp is shaped to permit of being pushed over the rail-flange from below, whereas the means for securing the clamp to the rail and abutting against a sleeper or a rail-chair are placed in the loop or loops of the clamp to bear against the vertical sides of the rail-flange, thus not only making the employment of a comparatively cheap clamp possible, but also permitting this clamp to be driven with a far greater force on the wedges to hold the clamp with greater security than it was formerly possible to do.

In the accompanying drawings, Figure 1 is a sectional view taken on line A B of Fig. 2. Fig. 2 is a plan view, and Fig. 3 is a side elevation, of my invention as applied to rails resting directly upon wooden sleepers. Fig. 4 is a sectional view taken on line C D of Fig. 5. Fig. 5 is a plan view, and Fig. 6 is a side view, of my invention as applied to rails held in rail-chairs resting upon metal sleepers. Fig. 7 is a view showing a modified form of my invention. Fig. 8 is a view showing how the clamp is slipped over the rail-flange from below.

The clamp *a* for holding the securing means to the rail *b* is shaped to be easily slipped over the flange of the rail from below while the lat-

ter is resting upon the sleepers *c*, thus making it possible to equip existing railway-lines with this device without disturbing the rails. In each of the loops *d* of the clamp *a* a gib *e* is placed, bearing with its outer side against the vertical wall of the loop holding it and with its inclined working face against the correspondingly-inclined working face of the cooperating wedge *f*, bearing with its opposite side against the rail-flange, over which it preferably extends, by means of the flange *g*. Where the rails are resting directly upon wooden sleepers, the wedge *f* is abutting against the sleeper *c*, as shown in Fig. 3, and in order to stiffen the depending nose *h* of the wedge *f* a hollow ridge or rib *i* is raised between the shank and the nose of said wedge.

To secure the device to the rail, the clamp *a* is slipped on the rail-flange, as shown in Fig. 8, after which the gibs are put into the loops, and then the clamp and gibs are pushed over the wedges, abutting against the sleeper or against a rail-chair or any other part secured to the sleeper, as the case may be. A few blows on the clamp will suffice to secure the whole device sufficiently to the rail to prevent it from leaving its place under the influence of the vibrations of the rail caused by a passing train. As the creeping is taking place in the direction of travel, (here supposed to take place in the direction indicated by the arrow in Fig. 3,) the rail *b* will try to wander in this direction too. This wandering of the rail is, however, checked by the wedges *f* abutting with their broader ends either against a sleeper or against a rail-chair, as the clamp is sufficiently secured to the rail not to move by itself, so that the inclination of the rail to creep will only tend to drive the wedges all the tighter between the vertical sides of said rail-flange and the vertical portion of the loops of the clamp *a*, and thus prevent the creeping of the rail all the more energetically.

In Figs. 4, 5, and 6 a modification of my invention is shown differing from the described form, inasmuch as here the loops of the clamp are shaped to form the working faces for the wedges *f*, thus making the gibs superfluous. As the rail is resting here upon a rail-chair *k*, secured to a metal sleeper *l*,

the wedges f are abutting against the rail-chair, as shown in Fig. 6. In case the device shown in Figs. 4, 5, and 6 is used on rails resting upon wooden sleepers the wedges would have to be shaped similar to the wedges shown in Fig. 3.

Fig. 7 is a view showing another modification still, differing from the other described above in this respect, that instead of placing a wedge at each side of the rail-flange only one wedge is employed and the clamp shaped accordingly.

It is evident that minor details might be changed to suit the manner of fastening the rails to the sleepers or that the wedges might be made to project sidewise simultaneously over and under the edge of the flange of the rail; but all such changes would in no way influence the working of my device, and therefore fall within the scope of my present invention.

I claim—

1. A device for preventing the creeping of rails comprising a looped clamp capable of being slipped from below over the flange of a rail secured to its sleepers, and wedging means abutting against a stationary part or parts of the railway and bearing against a vertical side of the flange of said rail and against the vertical portion of a loop of said clamp.

2. In a device for preventing the creeping of rails the combination of a looped clamp capable of being slipped from below over the flange of a rail secured to its sleepers, and a wedge or wedges abutting against a stationary part or parts of the railway and bearing with their straight bearing-surface against a vertical side of the flange of the rail and with their

inclined bearing-surface against the correspondingly-inclined bearing-face of the vertical portion of a loop of said clamp.

3. In a device of the class described the combination of a looped clamp capable of being slipped from below over the flange of a rail secured to its sleepers, a gib held in a loop of said clamp and provided with an inclined bearing-surface, and a wedge or wedges abutting against a stationary part or parts of the railway and bearing against a vertical side of the flange of the rail and against the inclined bearing-surface of said gib.

4. In a device for preventing the creeping of rails the combination of a rail with a clamp capable of being slipped from below over the flange of a rail secured to its sleepers, and wedging means abutting against a stationary part or parts of the railway and placed between a vertical side of the flange of the rail and the vertical inner side of a loop of said clamp.

5. The combination with the flange of a rail and a stationary part or parts of the railway of a clamp capable of being slipped over said flange from below, and wedging means abutting against said stationary part or parts of the railway and working between a vertical side of said rail-flange and the vertical inner side of a loop of said clamp.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HEINRICH DORPMÜLLER.

Witnesses:

HENRY QUADFLIEG,
GERARD VELLERS.