

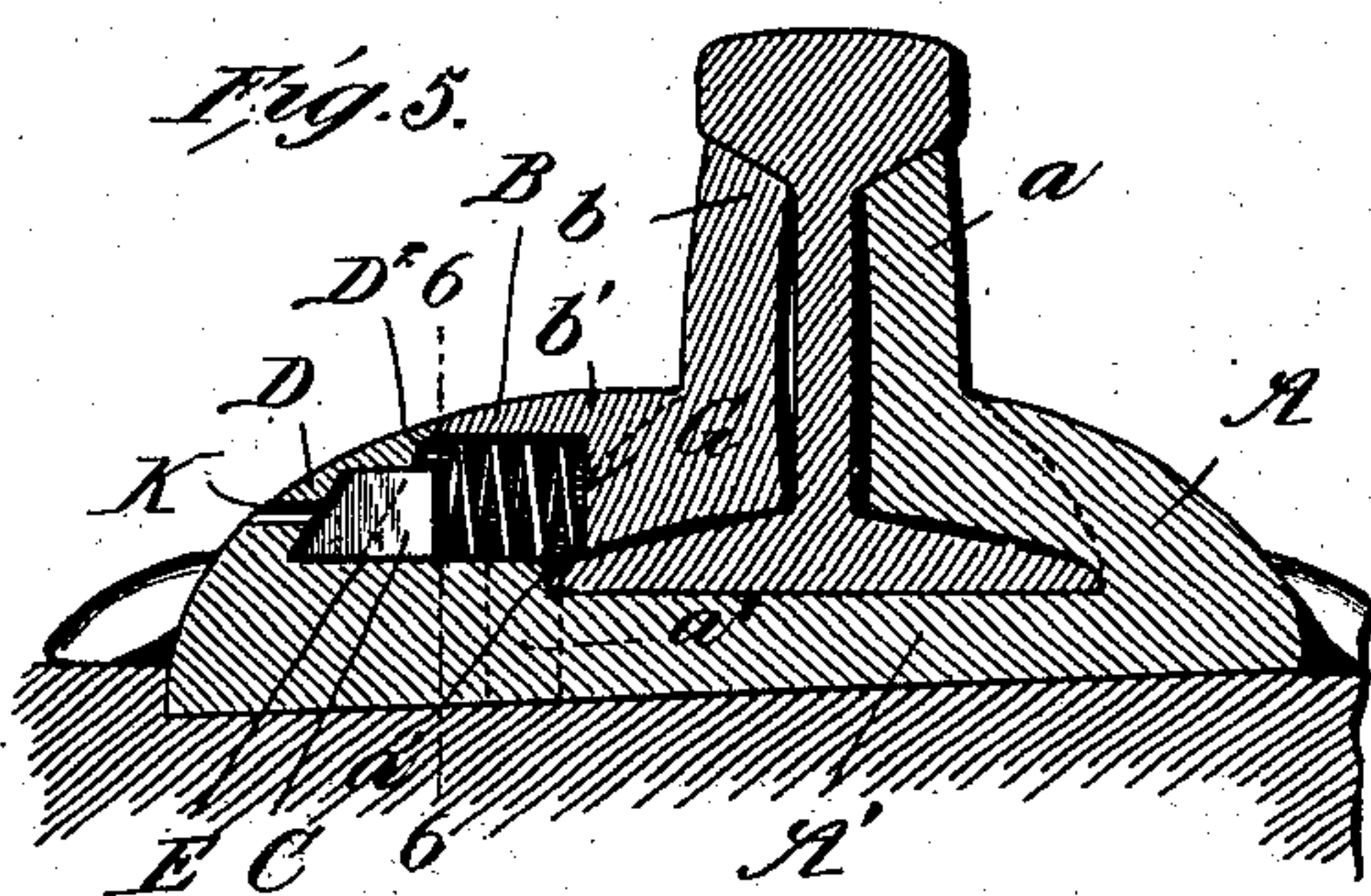
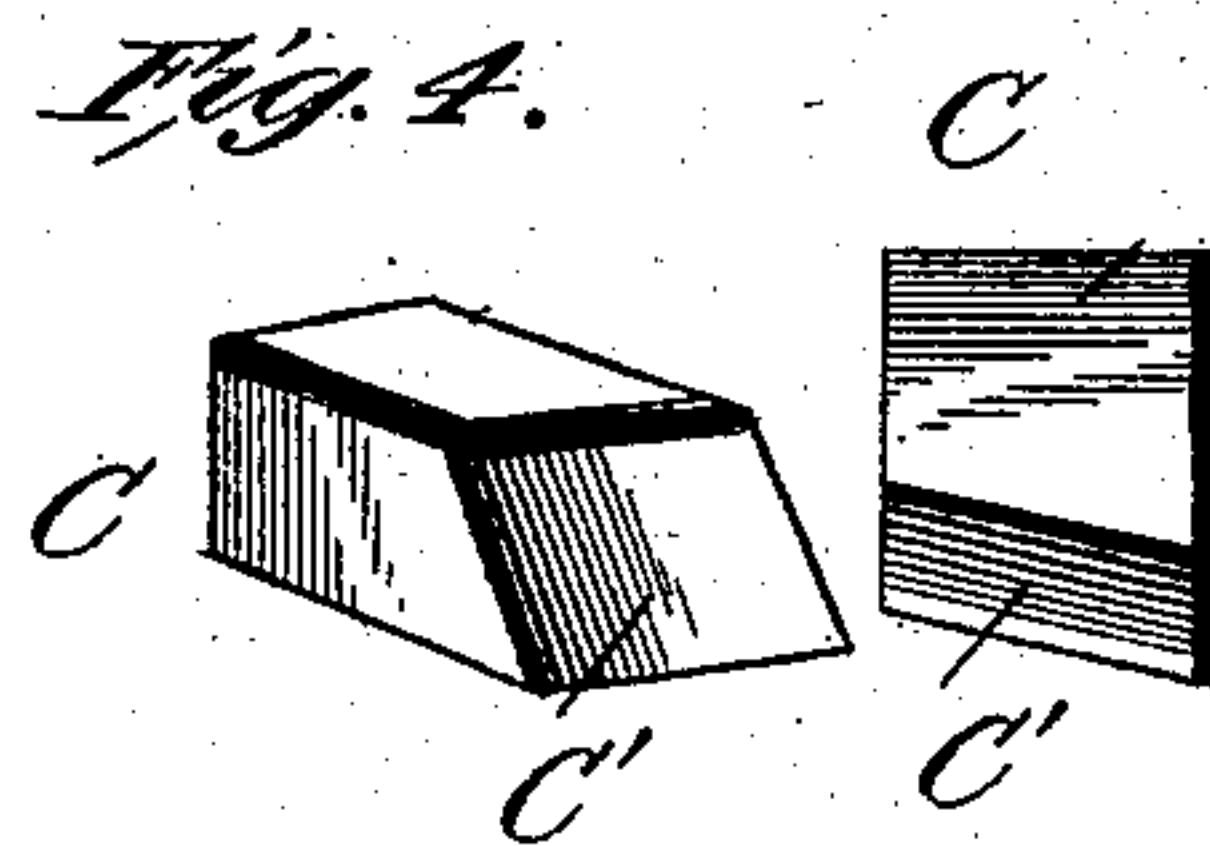
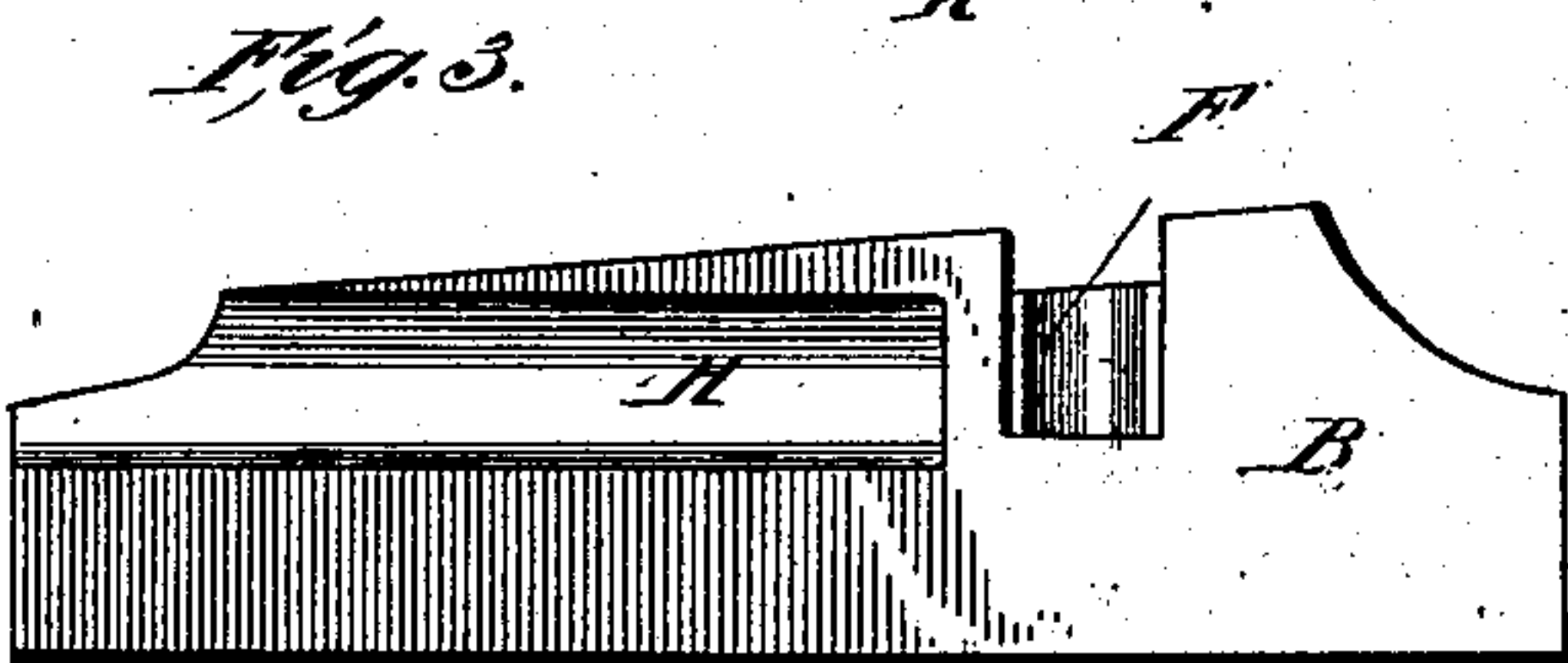
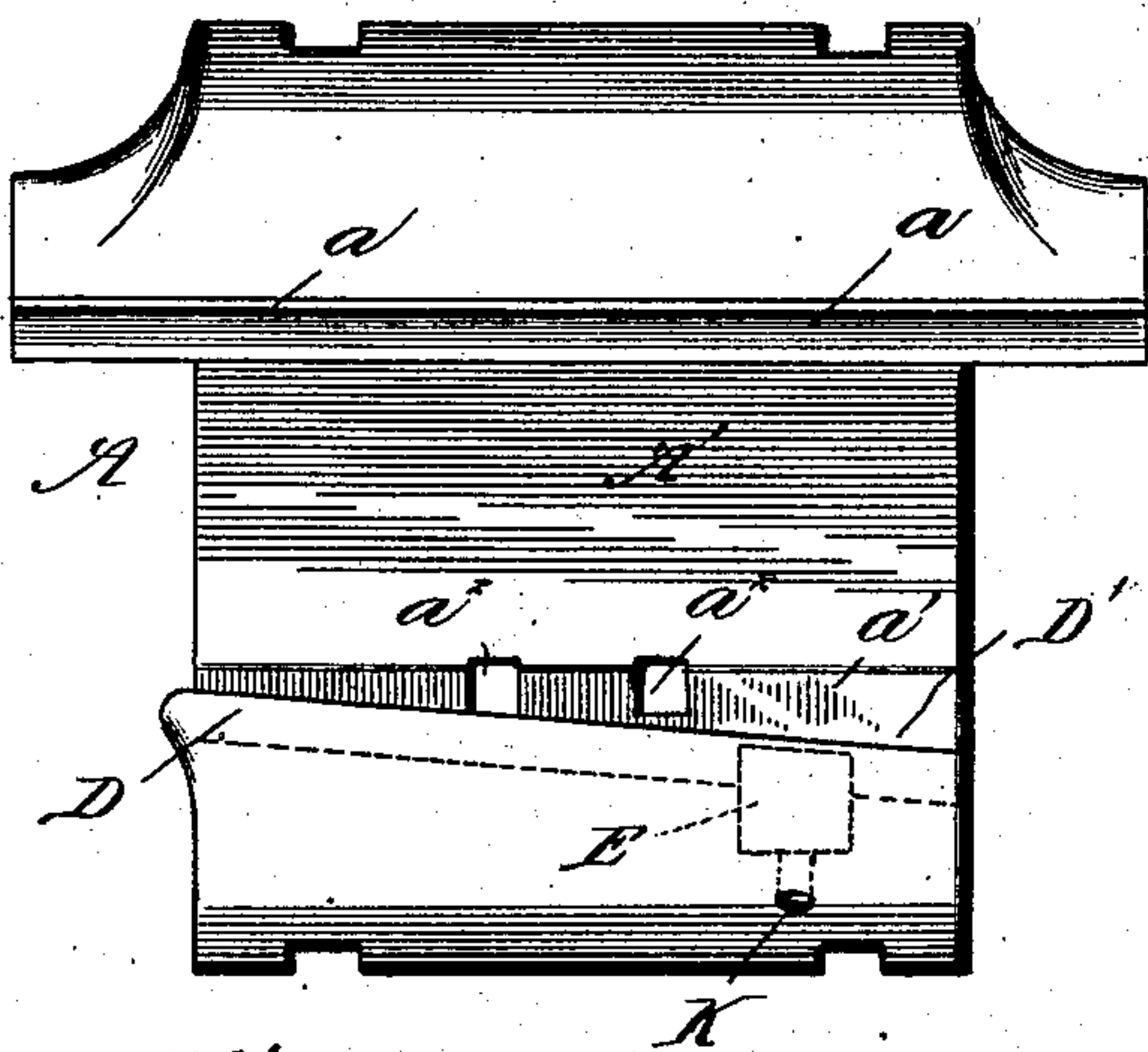
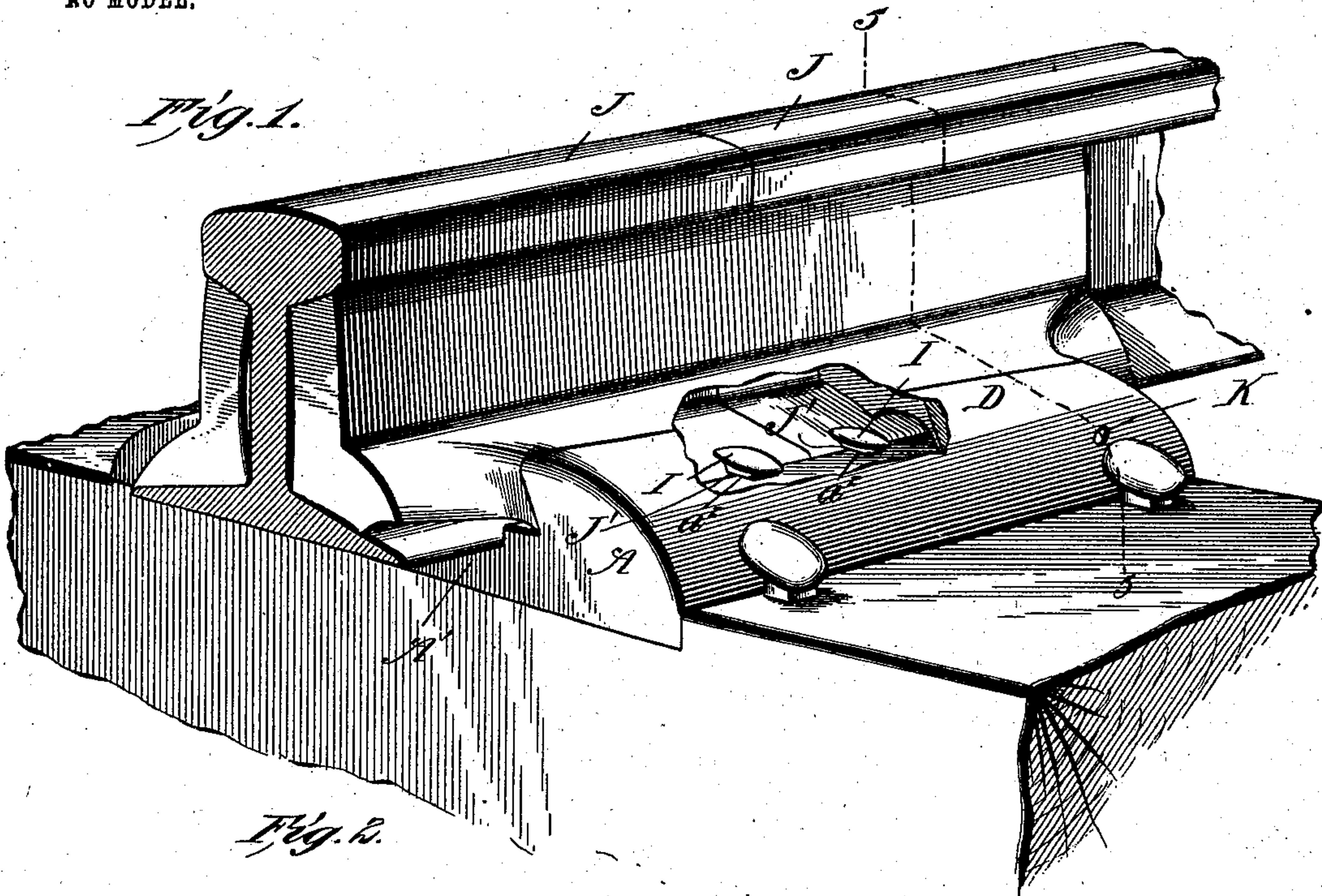
No. 721,524.

PATENTED FEB. 24, 1903.

F. S. PASCOE.
RAIL JOINT.

APPLICATION FILED MAY 17, 1902.

NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANK S. PASCOE, OF ALLEGHENY, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 721,524, dated February 24, 1903.

Application filed May 17, 1902. Serial No. 107,787. (No model.)

To all whom it may concern:

Be it known that I, FRANK S. PASCOE, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have made certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention is an improvement in rail-joints, and has for an object to provide a simple novel construction whereby the joint may be securely locked when applied and the locking key or section will be retained in position by the locking device; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the joint as in use. Fig. 2 is a detail top plan view of the main section of the chair. Fig. 3 is a bottom plan view of the locking key or section. Fig. 4 illustrates the locking-block in detail. Fig. 5 is a cross-sectional view on about line 5 5 of Fig. 1; and Fig. 6 is a detail section on about line 6 6 of Fig. 5, the locking-block being omitted.

My improved joint includes a chair A, the locking-key B, and the locking-block C, by which the key is locked in the main chair-section A when applied thereto, as shown in Fig. 1.

The chair A has a base A', which may be sloped on its under side, as shown in Fig. 5, so as to let one end of the cross-tie low enough to receive the casting under the rail and allow the other end of the tie to come up tight against the rail, as will be understood from Fig. 5. At one side the chair A has the integral upright fish-plate a and is provided at its opposite side with an upturned wing D, which is grooved or recessed in its inner side at D' and is undercut on its inner side at D² to receive the locking-key B and is also sloped longitudinally on such side, as shown in Fig. 2, so the locking-key B as it is driven home will be pressed firmly into binding contact with the rail to secure the rail firmly in the chair.

In the inner side of the upright wing D², I provide a socket E, opening inwardly from the undercut longitudinally-sloped side of the upright wing D² and registering with the recess which forms a seat for the locking-key

B. The base A' of the chair is also provided with a shoulder a' opposite the side of the chair having the fixed fish-plate section and completing the seat for the base of the rail, the shoulder a' lying below the base of the socket E, which opens inwardly, as shown in Fig. 5.

The locking-key B has the upright fish-plate wing b and the base portion b' , the latter being sloped at its outer edge both longitudinally and vertically to fit the longitudinal taper of the upright D² of the chair and the undercut inner edge of said wing, as will be understood from Figs. 1 and 5. This locking-key B is provided with an outwardly-opening socket F, which in the locked position of the parts coincides with the socket E in the chair and receives the locking-block C and the spring G for actuating said block outwardly into the socket E, as shown in Fig. 5, in which adjustment of the parts the block C fits partly in both sockets E and F and tends to lock the locking-key from displacement. The locking-key is also provided in its under side with a groove H, extending from its point end nearly to the socket F and which fits and slides over the spikes I, which are driven through the spike-holes a^2 in the base A' of the chair and rest in notches J' in the base of the rails J. The locking-key thus operates to retain the spikes I, and yet can be slipped longitudinally in the chair along the heads of said spikes to the locked position, as shown in Fig. 1. The locking-block C is sloped on its outer face at C' to conform to the longitudinal and vertical slope of the inner edge of the upright wing D² of the chair, so the said block when pushed in and started against the inner face of the said portion D² can move along said face with the locking-key until it registers with the socket E, when the spring G will force the said block C to the locking position. (Shown in Fig. 5.)

In the operation of my invention the rails J fit in the chair and are secured by the spikes I, fitting in the notches J' in the bases and passing through the holes A² in the base of the chair. The locking-key is then adjusted with its point end at the wide end of the seat for said key provided in the chair, and the block C is pushed back in its socket F until the outer edge of said block moves against

the inner face of the upright portion of the chair, when the locking-key B can be pushed longitudinally to the locked position, (shown in Fig. 1,) in which position the block C will project into the socket E and lock the key from displacement. In thus sliding the locking-key to locked position the groove H receives the heads of the spikes I. In order to release the block C and permit the withdrawal of the locking-key whenever desired, an aperture K may be provided, leading from the outer end of the socket E outwardly through the upright portion D² of the chair A in position to receive a pin by which the block C may be pushed back out of the socket E to permit the withdrawal of the key.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the rails provided with the base-notches J', the chair having the fish-plate section at one side and provided at the opposite side with the base-shoulder a' and above and beyond the same with the upright portion D² having its inner face sloped longitudinally and undercut vertically, and provided in said face with the inwardly-opening socket for the locking-block and with the pin-hole K leading to the outer end of said socket, and the locking-key having the upright fish-plate wing and having its base portion grooved longitudinally at H and provided with a socket F for the locking-block and the said block and its actuating-spring, all substantially as and for the purposes set forth.

2. The combination of the chair having an upturned portion and provided in the inner face of said portion with a socket opening at

its inner end below the upper surface of such upturned portion to receive the locking-block, the locking-key provided in its outer face with a socket for the locking-block, and the locking-block and spring, substantially as set forth.

3. The combination with the chair provided at one side with the upturned portion having its inner face sloped longitudinally and undercut vertically, the locking-key, having its outer face coinciding with that of the upturned portion of the chair, sockets being provided in the abutting faces of said locking-key and upturned chair portion, and the locking-block arranged for operation in said sockets, whereby to lock the key from longitudinal movement, substantially as set forth.

4. The combination of the chair having the upwardly-projecting portion at one side, undercut and sloped at its inner face and provided with a socket leading from said face, the locking-key having in its outer edge a socket which may be moved into register with that of the upwardly-projecting portion, and the locking-block and its spring, substantially as set forth.

5. The combination with the chair having a socket for the locking-block, of the locking-key sloped longitudinally at its outer edge and provided with a socket leading from said edge, the locking-block having its outer end sloped, and the spring for actuating said block, substantially as set forth.

FRANK S. PASCOE.

Witnesses:

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