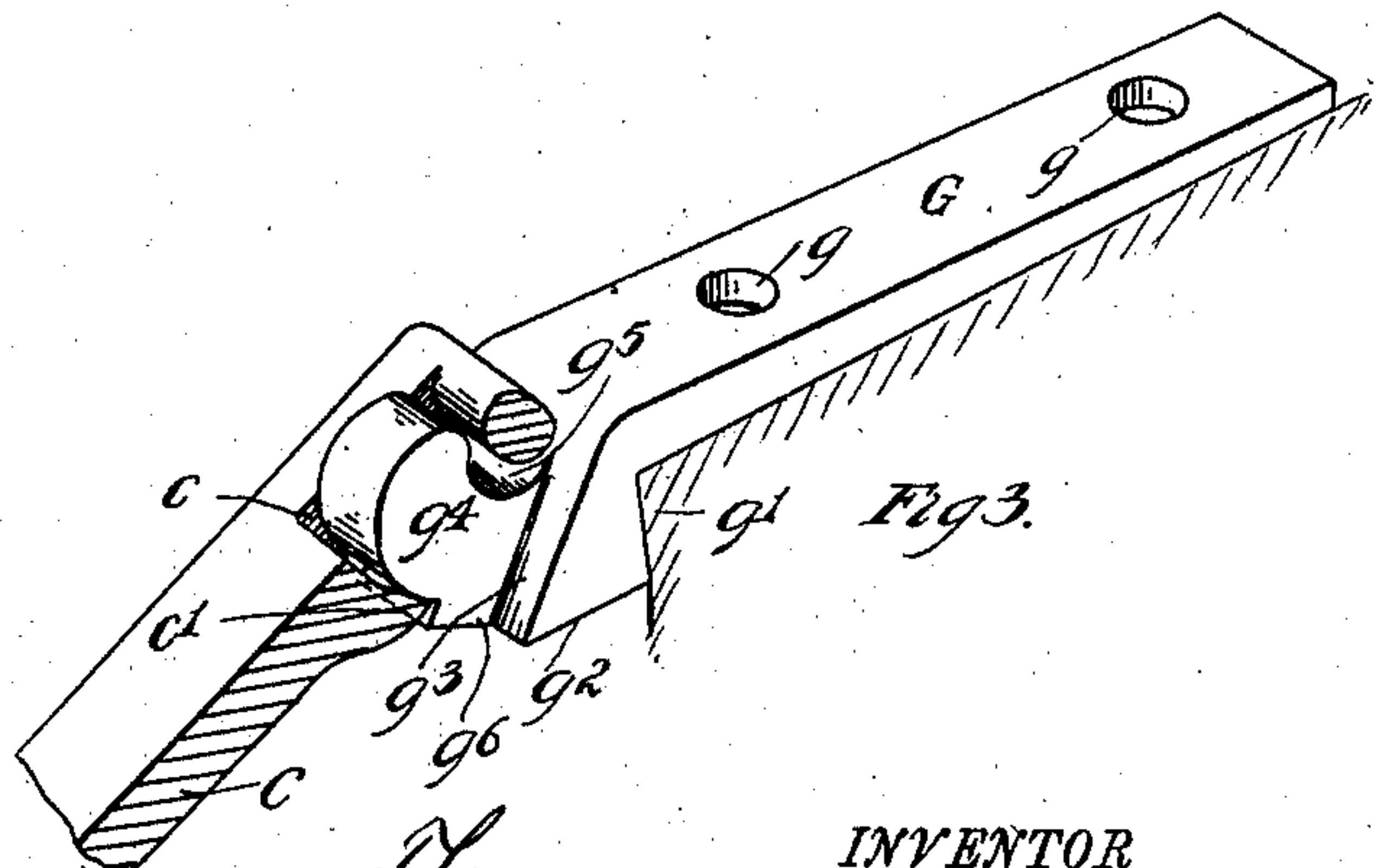
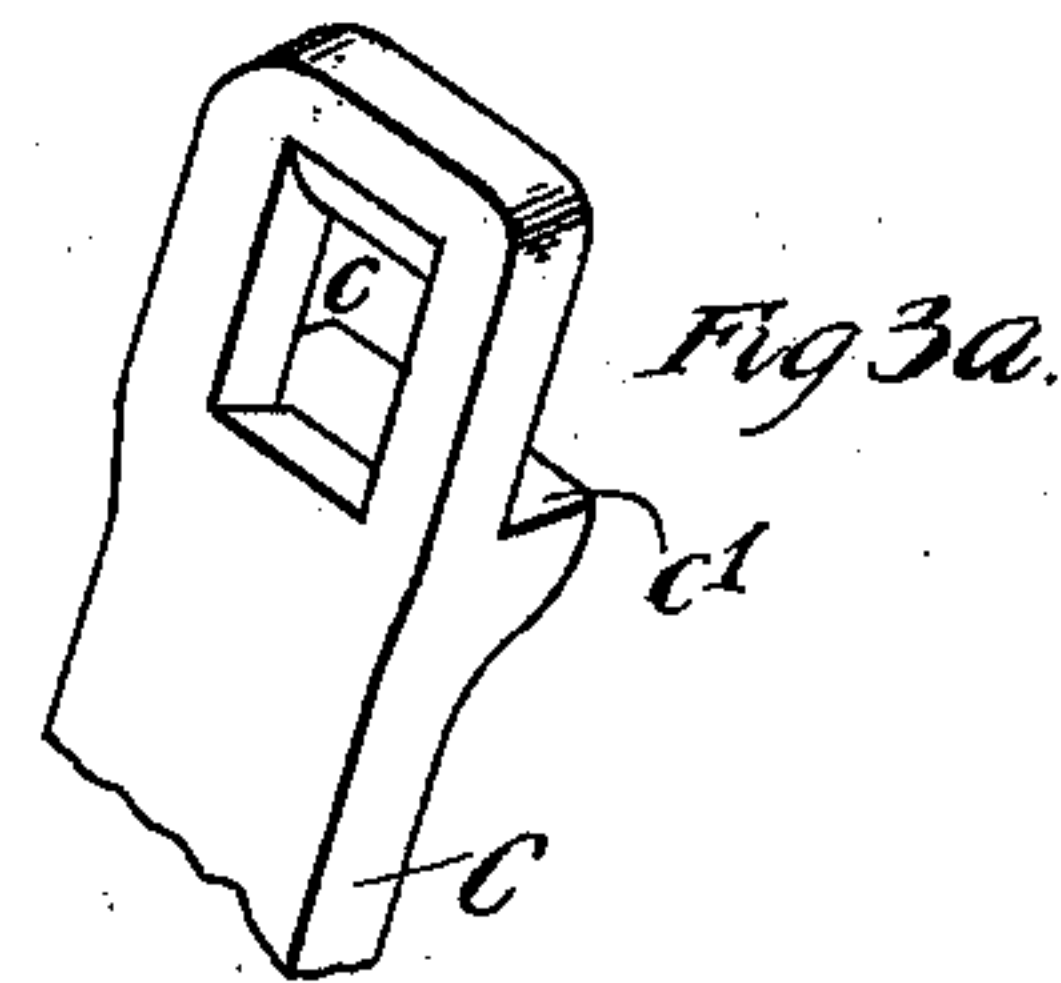
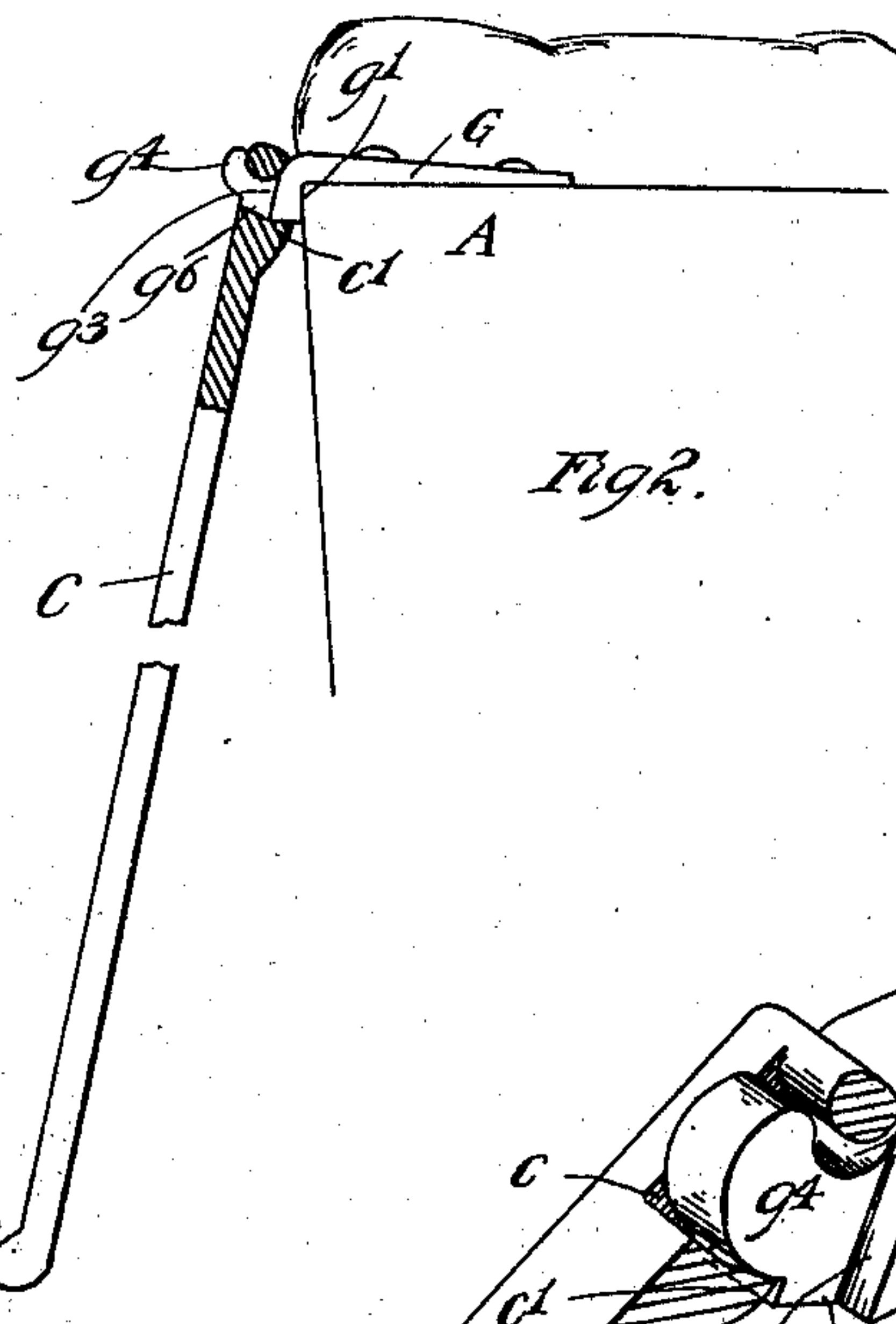
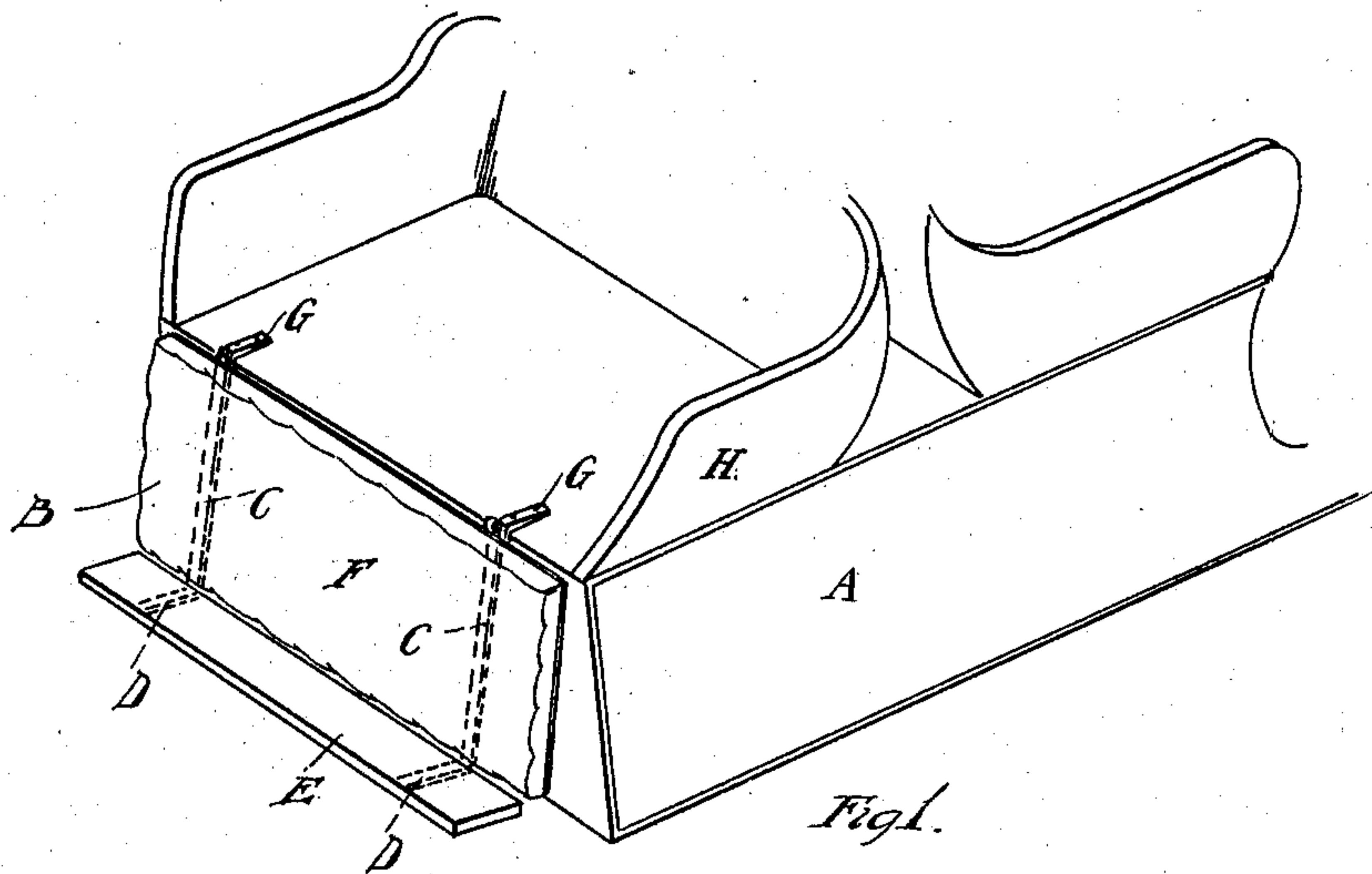


No. 757,245.

PATENTED APR. 12, 1904.

T. SWAN.
FOOT REST FOR SEATS.
APPLICATION FILED MAY 14, 1903.

NO MODEL.



WITNESSES
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THOMAS SWAN, OF FLINT, MICHIGAN.

FOOT-REST FOR SEATS.

SPECIFICATION forming part of Letters Patent No. 757,245, dated April 12, 1904.

Application filed May 14, 1903. Serial No. 157,102. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SWAN, a citizen of the United States, residing at Flint, county of Genesee, State of Michigan, have invented
5 a certain new and useful Improvement in Foot-Rests for Seats; 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 pertains to make and use
10 the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to detachable locked joints, and has especial reference to the formation of a detachable locked joint adapted to be used in detachable seats for carriages and automobiles; and it consists in the peculiar arrangement and combination hereinafter described and claimed.

15 In the drawings, Figure 1 shows a perspective view of a seat employing the joints in question attached to the rear end of an automobile-body. Fig. 2 is a side elevation of the same sectioned along the line of one of the joints. Fig. 3 is a figure, on an enlarged scale, showing the details of the joint in perspective, the two parts being shown in a relation just prior to the locking position. Fig. 3^a is a longitudinal section of the hanger member of the joint.
30

Similar letters refer to similar parts.

In the drawings, A represents the body of a carriage or automobile.

B represents the foot-rest attached to the seat, which foot-rest consists of two hanger-irons C C, which employ the joint illustrated in Fig. 3. The hangers are formed with a bottom angle at D, and the two are united by a support and foot-rest E. If desired, the
40 two vertical portions of the hanger may be also united and support a splash board or guard F. The foot-rest being hung by means of the hangers possessing these detachable joints, it is obvious that the whole body of the foot-rest can be easily removed when desired for any purpose. Each joint in question is made of two parts, the perpendicular portion C and a companion piece G. This piece is adapted to be firmly attached to either
50 the top of the box or body A or to a remov-

able seat H, and for the purpose of attaching appropriate screw-holes *g g* are formed therein. The outer overhanging end of the fixed piece G is peculiarly formed, and it is in this formation and the companion formation of
55 the perpendicular portion C that my invention resides. At the outer end and under side of the fixed portion G there is formed an angle *g'*, which is adapted to fit the edge of the seat or body to which the part G is attached. 60 The under side *g²* is formed with a plane surface parallel to the seat. The outer surface *g³* is formed at an angle with the plane surface *g²*, whereby the overhanging portion or body of the piece G has a cross-section sub- 65 stantially like a right-angled triangle, except that the apex is widened out to the width of the length of the part G at that point. This places the joint below the level of the portion G. Erected on the angle side is a hook *g⁴*, 70 which is cam-shaped and formed with a depression on the upper side *g⁵*. On the lower side is formed an abutment or shoulder *g⁶* for the purpose hereinafter described. The upper end of C is formed with a square eye 75 *c*, adapted to fit the hook *G⁴* and having its upper interior surface rounded, as shown in Fig. 3 in cross-section.

Fig. 3^a represents the vertical sectional view of the upper end of C. Upon the rear side 80 and immediately adjacent to the lower interior surface of this eye *c* is formed an angular projection *c'*, which when the vertical arm C is in position is adapted to fit and abut squarely against the lower face *g²* of the part 85 G, as shown in Fig. 2. This forms when in position as shown in Fig. 2 a rigid connection and one as solid and incapable of further movement downward or rearward as a solid 90 piece.

In removing the foot-rest B the bottom ends of the hangers C C are swung outwardly, turning upon the pivots or hook *g⁴*, which is engaged by the eye *c*, until the shoulder *c'* passes the angular projection *g⁶*. Thence by slightly 95 raising the foot-rest and arms C C the shoulder *c'* passes by the projection *g⁶* and into the interior angle formed between it and the hook sufficiently far to allow the upper face of the eye *c* to be drawn over and off from the up- 100

per projection of the hook g^4 . This construction and mode of operation permits of the foot-rest being removed very readily and without swinging it outwardly but a short distance, whereas if the projection g^6 and its re-entering angle were not present the foot-rest would have to be swung out to a much greater distance in order to enable the eye to be detached from the hook g^4 .

10 The mode of operation is sufficiently apparent from the foregoing description.

This invention is peculiarly useful for dos-à-dos seats for automobiles, for the reason that such seats quite often have to be removed in order to enable the operator to gain access to the machinery, and where they are solidly formed with a foot-rest and without any ability to separate the foot-rest from the seat they become an awkward and inconvenient article to handle, whereas with the detachable foot-rest of the form shown the foot-rest is very easily removed, and then the seat proper is also easily removed in two separate parts. It often happens in some constructions that the removal of the foot-rest alone would be sufficient to enable an operator to obtain access to the machinery through the rear end of the body, and the employment of this invention avoids the necessity of removing the seat entirely. At other times, too, the foot-rest would be lifted out and the seat allowed to remain, and thus destroy the appearance of a dos-à-dos seat upon such a vehicle.

It is obvious that the locked joint described may be applied to other uses, and I do not confine myself to its use in automobiles.

Having described my invention, what I desire to claim is—

1. In a detachable locked joint, the combination of a fixed part adapted to be fixedly attached to a seat, said part having a hook thereon, a dependent swinging portion having an eye adapted to fit the hook and a rearward-extending shoulder adapted to fit the under side of the fixed portion, forming another shoulder preventing the inward swinging of the detachable portion beyond a certain fixed angle, substantially as described.

2. In a bracket adapted to sustain a foot-rest, the combination of a fixed metal portion attached to the bottom of a seat and projecting but very little above the same, the outer end

beyond the edge of the seat being formed with a depending portion, a hook extending from such depending portion, the upper edge of said hook being below the upper surface of said flat portion sufficiently far to permit the upper end of a detachable portion to be depressed below the upper surface of said fixed portion, a depending hanging portion having an eye adapted to fit said hook and having projecting rearwardly a shoulder preventing its swinging downwardly and inwardly beyond a certain fixed angle, substantially as described.

3. In a bracket adapted to sustain a foot-rest, the combination of a fixed metal portion attached to the bottom of a seat and projecting but very little above the same, the outer end beyond the edge of the seat being formed with a depending portion, a hook extending from such depending portion, the upper edge of said hook being below the upper surface of said flat portion sufficiently far to permit the upper end of a detachable portion to be depressed below the upper surface of said fixed portion, a depending hanging portion having an eye adapted to fit said hook and having projecting rearwardly a shoulder preventing its swinging downwardly and inwardly beyond a certain fixed angle, said hook having formed a reëntering angle therein on its lower face whereby the shoulder upon said detachable portion on passing said reëntering angle permits said detachable portion to be lifted and disengaged from the hook, substantially as described.

4. As an article of manufacture, a detachable lock-joint comprising a member G and an interlocking member C, said member G having a reëntering surface g^5 , upon one side adapted to receive a stirrup formed upon the detachable member, also a reëntering angle c' opposite said reëntering surface g^5 , whereby when the opposite member is swung away from its fixed position it may be longitudinally moved to detach the stirrup from the member G, substantially as described.

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

THOMAS SWAN.

Witnesses:

GUY G. WAITES,
H. W. OBER.