

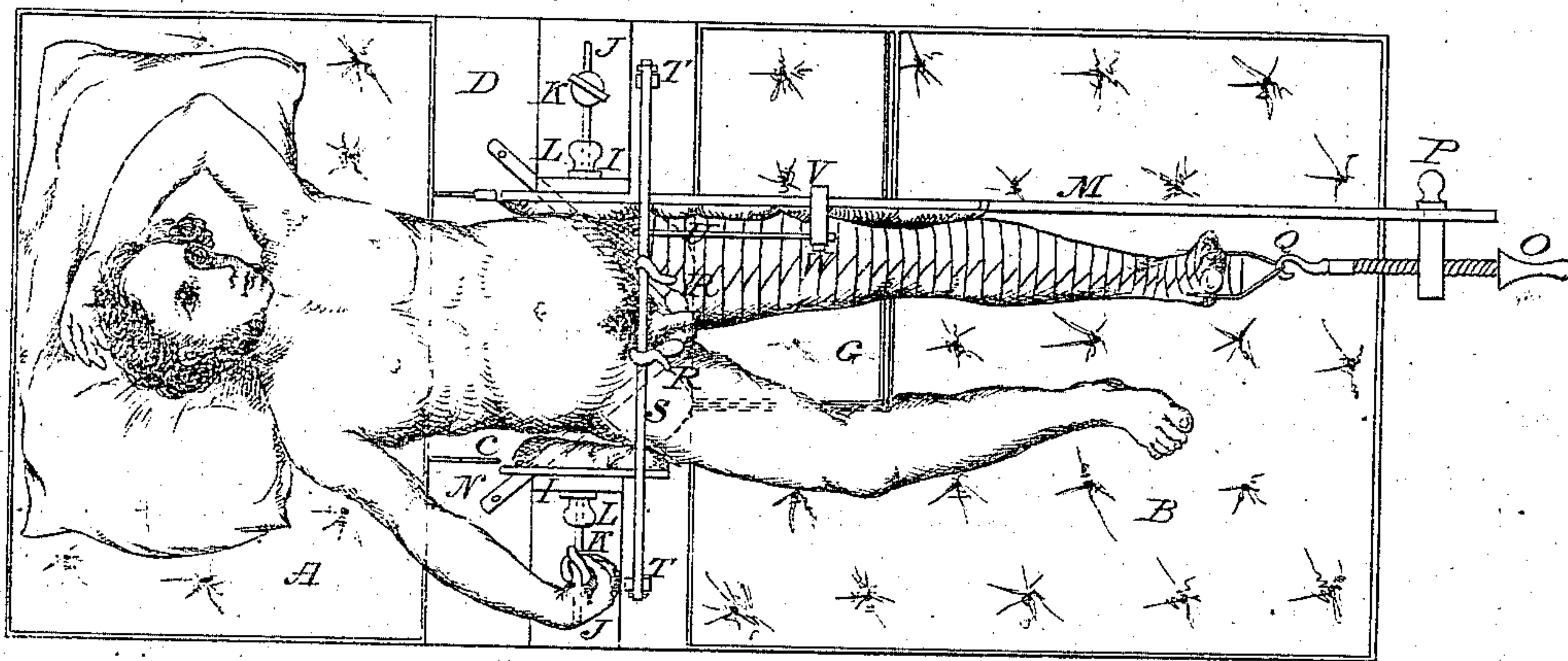
*J. H. & M. J. Burge,*

*Fracture Apparatus.*

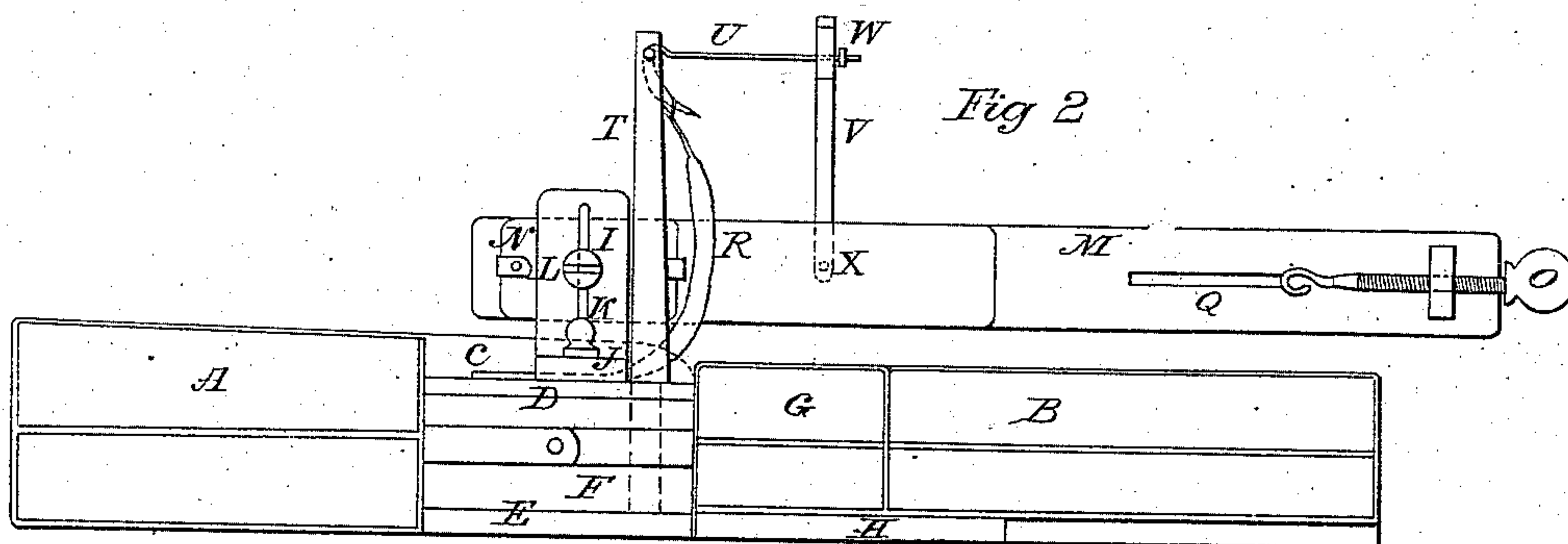
*N<sup>o</sup> 17,195.*

*Patented May 5, 1857.*

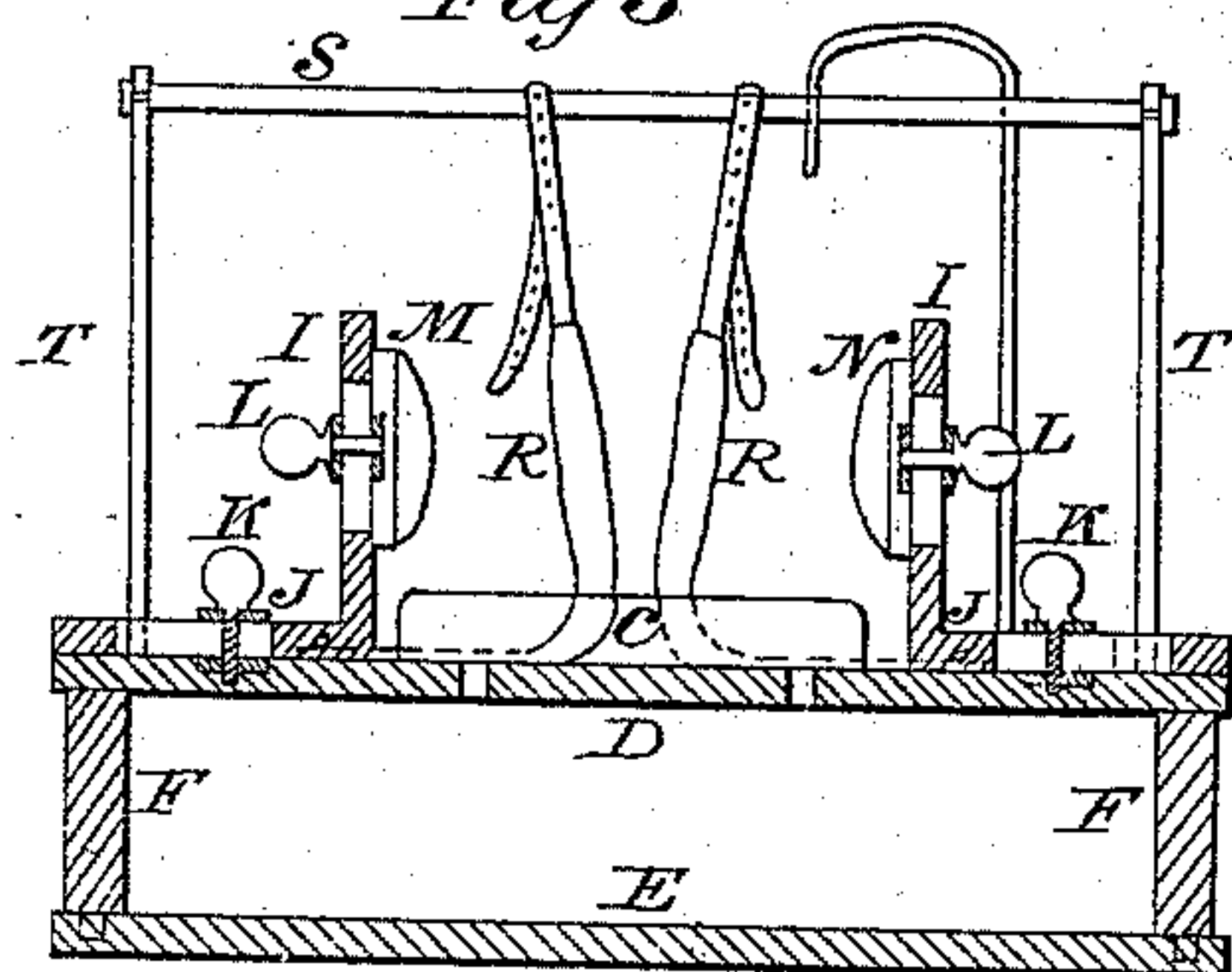
*Fig 1*



*Fig 2*



*Fig 3*





# UNITED STATES PATENT OFFICE.

J. H. H. BURGE AND WM. J. BURGE, OF BROOKLYN, NEW YORK.

## SURGICAL SPLINT APPARATUS.

Specification of Letters Patent No. 17,195, dated May 5. 1857.

*To all whom it may concern:*

Be it known that we, J. H. HOBART BURGE, M. D., and WM. J. BURGE, M. D., of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and improved apparatus to be used in the treatment of fractures of the lower extremities, and especially for extension and counter extension in cases of fractured thigh; and we do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 represents the apparatus as in use. Fig. 2 is a longitudinal view of the same, and Fig. 3 is a transverse section thereof.

The lettering of these different views is intended to correspond as nearly as possible.

Letter A is a mattress forming nearly the upper third of the patient's bed.

B is a mattress forming nearly the lower half of the same while the central portion of the bed is formed by the cushion C attached to the wooden platform D. This platform D is about one foot wide by two feet long and has at its lower margin a V-shaped opening which corresponds with a similar opening in the cushion C. The passage thus provided, is for convenience of defecation, and in order still further to facilitate this function, the cushioned platform D is elevated several inches upon a second platform marked E by a strip of board at each end marked F F', thus providing a shelf for the bed-pan which may be introduced through a space left by drawing out the upper section G of the mattress B already mentioned.

H is a board of the same dimensions as the platform E hinged to its lower margin so that when in use the mattress B rests upon it and when not in use it may be folded back, under the platform E.

Upon the platform D on each side of the cushion C there is a rectangular wooden slide marked I J. These slides are so arranged as to be separated or approximated at will and by the thumb screw W which passes through a figure in the horizontal portion of each they are to be fixed at the desired point, so as exactly to embrace the pelvis of the patient. There is also a fissure in the perpendicular portion of each rectangu-

lar wooden slide and a screw marked L passing through the same. One of these screws marked L is to secure the upper end of the long splints M, and the other for the attachment of the short splint N. Both the splints M and N are well padded upon one surface and may be elevated or depressed at will (in order to bring them to the level of the patient's limbs), and fixed at the proper altitude by the screws L, L'. The splints M and N are mutually transferable in order to adapt the apparatus to a fracture of either thigh. The long splint M already mentioned extends from the brim of the pelvis to beyond the foot on the outer side of the fractured limb. The short splint N already referred to, is fixed on the opposite side of the pelvis, to prevent all lateral motion of the patient's hips.

O is a screw of any convenient size passing through a block which is attached near the lower end of the long splint M at any desired point and fixed by the thumb screw P which passes through a fissure in said split. The screw O has a hook at its extremity marked Q arranged by means of a swivel so that when fastened to the foot of the patient extension may be made without twisting the limb.

R, R are two counter-extending pads attached by leather straps to the upper surface of the cushioned platform D on each side of the cushion C and about thirteen inches apart. These straps pass under the cushion and becoming well rounded straps traverse the tuberosities of the ischia pass between the thighs and thence perpendicularly to the horizontal iron rod S at an altitude of eight or ten inches above the patient, transversely to his body and directly opposite the perineum. This iron rod S is supported at either end by a perpendicular iron bar T, T. Each of the bars marked T passes through the cushioned platform D, and by its lower extremity rests upon the platform E after traversing a groove in a metallic plate screwed to the strips of board which separate the platforms D and E.

U is a metallic rod hooked at one end upon the transverse rod S and running parallel to the long splint M to which it is connected at its other extremity by an arched iron bar V through the intervention of screws and nuts, forming movable joints, as seen at W and X, so that when the splint is moved up or down a corresponding motion is communicated to



the rod U. The object of the metallic rod U is to afford attachment to belts which are to be used in giving support to the fractured thigh.

5 What we claim and desire to secure by Letters Patent of the United States, is—

1. We claim the combination of the pad-  
straps R, R, with the platform D, and rod S,  
10 the counter-extending pressure as much as possible to the tuberosities of the ischia.

2. We claim the rod U, as a means of supporting the fractured limb, only in connection with the employment of extension and counter-extension.

J. H. HOBART BURGE.  
WM. J. BURGE.

Signed in presence of—

SAML. BURGE,  
GEORGE W. ROBINSON,  
THOMAS B. TOWNSEND.