(No Model.) 3 Sheets—Sheet 1.

J. G. ARMOUR & C. SOUTHORN.

CHAIR.

No. 606,112. Patented June 21, 1898.

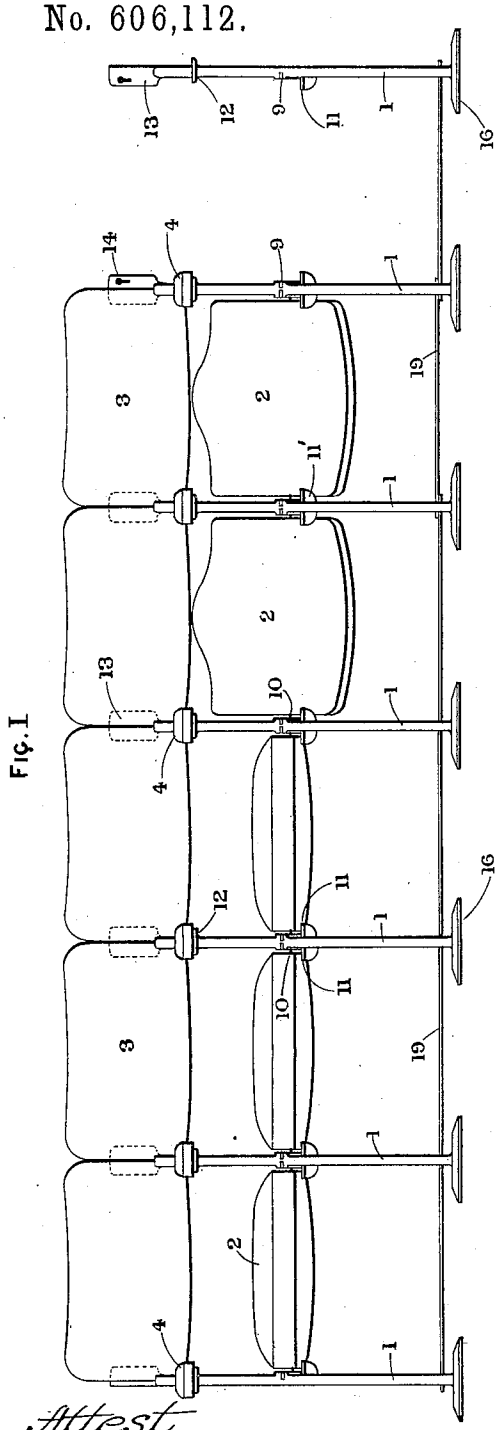


Fig. I

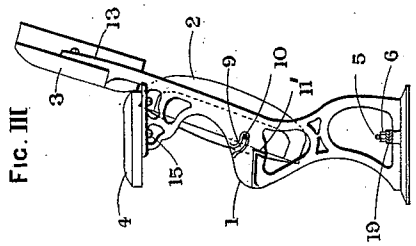


Fig. III

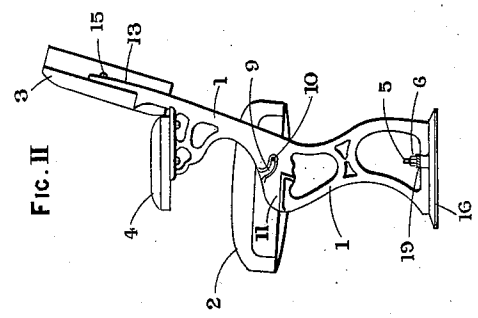


Fig. II

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Fig. 4.

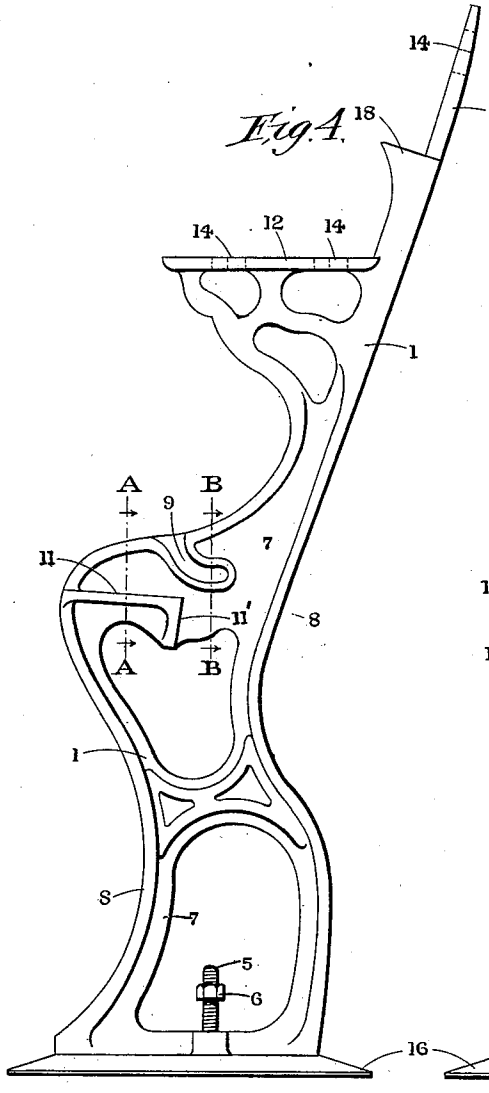


Fig. 5.

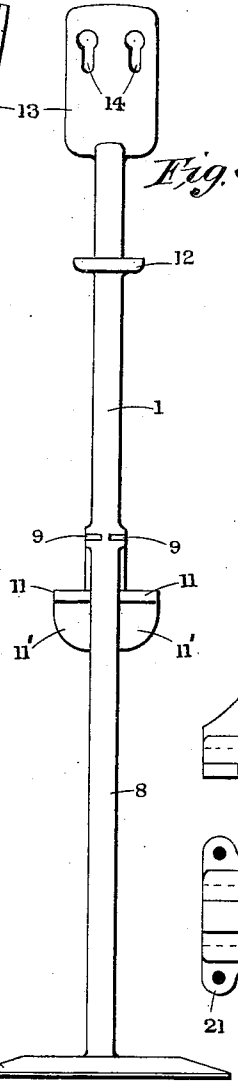


Fig. 8.

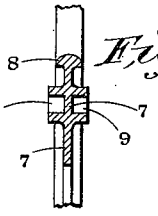


FIG. VII

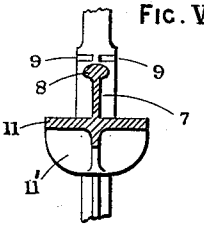


FIG. IX

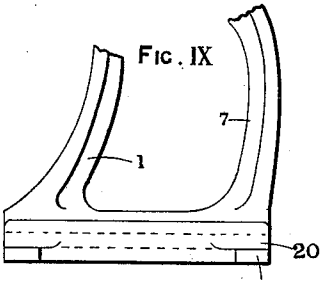


FIG. X

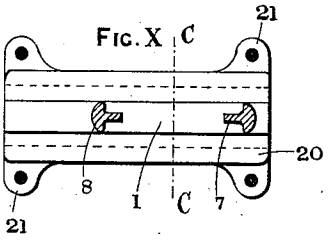


FIG. XI

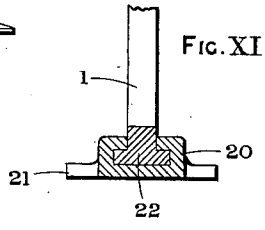
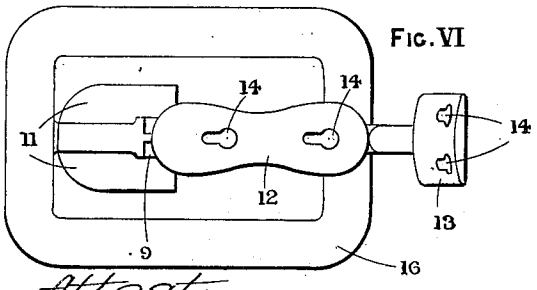


FIG. VI



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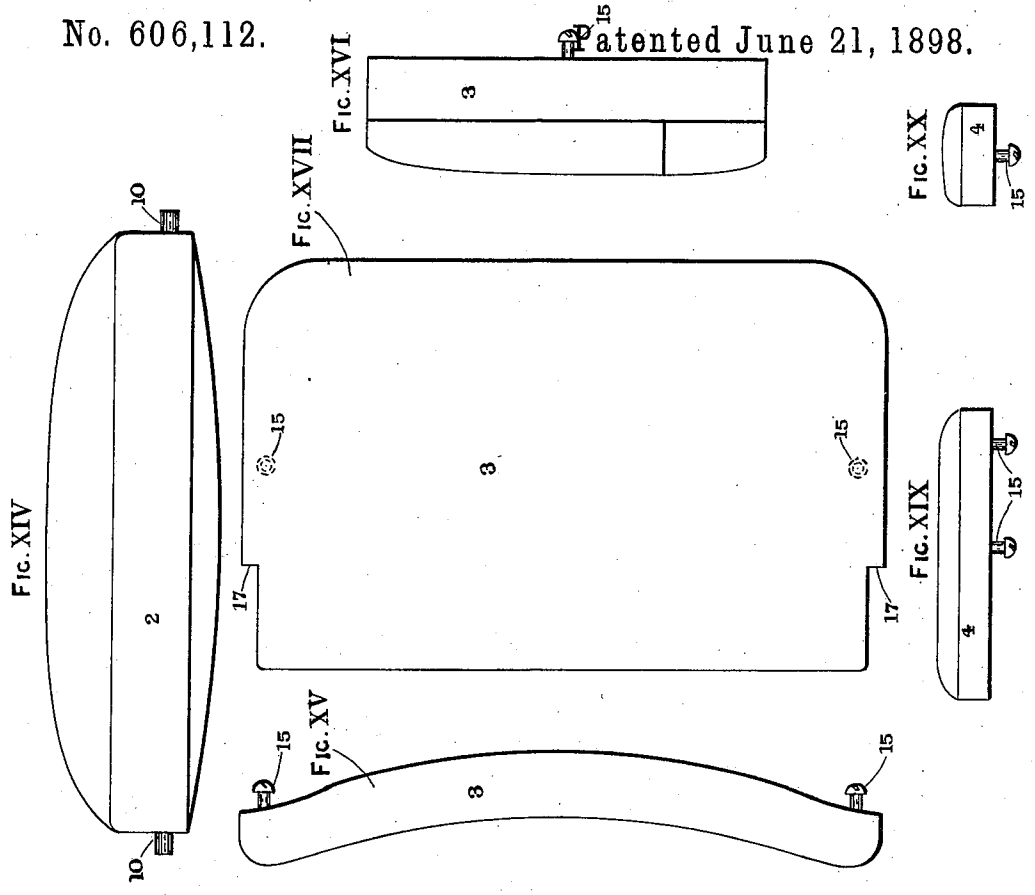
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UNITED STATES PATENT OFFICE.

JAMES GLENCAIRN ARMOUR AND CHARLES SOUTHORN, OF LIVERPOOL, ENGLAND.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 606,112, dated June 21, 1898.

Application filed October 12, 1897. Serial No. 654,918. (No model.)

To all whom it may concern:

Be it known that we, JAMES GLENCAIRN ARMOUR and CHARLES SOUTHORN, subjects of the Queen of Great Britain, residing at Liverpool, in the county of Lancaster, England, have invented certain new and useful Improvements in Chairs with Turn-Up Seats, of which the following is a specification.

This invention has reference to chairs with turn-up seats, such as are used in theaters and other places where space is limited.

In such chairs as ordinarily constructed great inconvenience and delay are experienced when any of the chairs have to be removed or any of the parts require to be repaired or reupholstered; and our object is to obviate these difficulties.

In carrying out our invention we provide a series of frames or standards, usually of cast-iron, each of which, except the two at the extreme ends of the row, serves for two seats, and we arrange the seats, arms, and backs so that any one can be instantly removed or replaced for repairs, &c., without disturbing any of the others.

In the accompanying drawings, Figure I shows in front elevation a row of chairs constructed according to our invention. In two cases the seats are turned up, and in the case of the chair at the extreme right end the seat, back, and one arm are removed. Figs. II and III are side elevations showing, respectively, the seat turned down and turned up. Fig. IV is a side elevation of one of the standards. Fig. V is a front elevation, and Fig. VI is a plan view, of the same. Fig. VII is a fragmentary section on line A A of Fig. IV, and Fig. VIII is a fragmentary section on line B B of Fig. IV. Fig. IX is a detail side view of a modification of the lower part of the standards. Fig. X is a plan view of the same. Fig. XI is a sectional view on line C C of Fig. X. Fig. XII is a plan view of one of the seats. Fig. XIII is a side elevation of one of the seats. Fig. XIV is a front elevation thereof. Fig. XV is a plan view of one of the backs. Fig. XVI is a side elevation, and Fig. XVII a front elevation, thereof. Fig. XVIII is an inverted plan view of one of the arms. Fig. XIX is a side elevation, and Fig. XX a front elevation, thereof.

Throughout the drawings the same parts are indicated by the same reference-figures, and in the case of sections the direction in which the section is viewed is indicated by the small arrows adjacent to the letters denoting the plane of section.

As shown in Fig. I, a row of chairs comprises a series of independent standards 1, with seats 2, backs 3, and arms 4, supported by the standards, the number of the latter being one more than the number of seats.

The standard, Figs. IV, V, VI, VII, and VIII, is preferably of cast-iron, as already stated, and all in one piece, with the exception of stud 5 and nut 6, and it stands upon the base 16. The thin central portion or web 7 is stiffened at its edges by the rib 8, which strengthens and improves the appearance of the standard.

9 are sockets or notches on the sides of the standards adapted to receive the gudgeons or pivots 10 of the seats. The web 7 is continuous between the sockets, (see Fig. VIII,) so as to preserve the strength of the standard and locate the seat-gudgeons 10 endwise, and it will be seen that as the sockets are open at the top, there being no rib at the mouths of the sockets, the seats can be simply dropped into place or removed without disturbing the standards.

11 are brackets projecting from the sides of the standards and adapted to support the seats, which rest upon the tops of the brackets when turned down, as in Fig. II, and against the rear parts 11′ of the brackets when turned up, as in Fig. III. The position of these brackets is so arranged in conjunction with the curved form of the sockets 9 that the seats rest quite securely in either position without any tendency to tilt.

12 is a bracket for carrying the arm, and 13 is a palm for carrying the back. Each of these is pierced with the holes 14, of keyhole form to suit the studs 15 of the arms and backs, by which the attachment is made.

The seats, backs, and arms each consist of a framework, usually of wood, covered with upholstery after the ordinary manner.

10, Figs. XII, XIII, and XIV, are the gudgeons already referred to and adapted to drop into the sockets 9. These gudgeons are firmly

fixed in the framework of the seat, the width of which is such that it can swing freely between the standards 1.

15, Figs. XVIII, XIX, and XX, are the studs or button-head screws, already referred to, firmly fixed to the lower side of the arm and adapted to be dropped through the enlarged parts of the holes 14 in the arm-bracket 12 and then slid forward into the slotted parts of the holes, so as to attach the arm to the arm-bracket.

The back, Figs. XV, XVI, and XVII, is provided with a pair of studs 15, similar to those of the arm and adapted to similarly attach the back to the palms 13 by the holes 14 therein. A shoulder 17 is formed at each side of the back, which is intended to abut against the shoulder 18 on the standard 1 when the back is in its proper position. The lower edge of the back then lies behind the arm, as shown in Figs. II and III, and thus prevents the latter from being slid back, so that it cannot be displaced unless the back be first raised.

The correct distance between the standards 1 is determined at the top by the backs 3 and at the bottom by the light tie-bars 19, having holes fitting over the studs 5 and secured by the nuts 6. The tie-bar may be continuous for several chairs, as shown toward the left in Fig. I, or it may be in short lengths, as shown toward the right in the same figure.

As will be seen from Fig. I, all the intermediate standards 1 are alike, and the end standards only differ from the others inasmuch as the palm 13, socket 9, and bracket 11 are provided on one side only—right or left, as the case may be.

In setting up a row of chairs it is only necessary to place the standards in position, attach the ties 19, affix first the arms and then the backs, and finally drop the seats into the sockets.

In place of the base 16, already described, a shallow bracket or socket 20, Figs. IX, X, and XI, is fixed to the floor by the lugs 21, and the foot 22 of the standard is adapted to be slid into and held by the bracket. In this construction the tie-bars 19 are of course dispensed with.

It will be noticed that by the construction described any individual seat, back, arm, or standard may be removed or replaced with the utmost facility without the necessity, which is experienced in the ordinary construction, of disturbing the remaining chairs of the row; also, that the standards not being fixed, as is usual, to the floor the chairs can be set up or their positions rearranged with very little trouble or delay.

With regard to the attachment of the arms and backs the main feature is that the attachment is made by simply placing the arm or back against the corresponding part and then sliding it into position instead of having to insert screws. The device shown is considered best adapted for the purpose; but obvious mechanical equivalents might be substituted. For instance, the arm-brackets and back-palms might be of dovetail cross-section for a portion of their length, corresponding short pieces being attached to the arms and backs, so as to allow the attachment to be made with a small amount of sliding.

Having now fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In combination, a row of standards, each of which with the exception of those at the extreme ends of the row serves for two seats; seats provided with pivots and supported by the said standards; open-mouthed sockets on the standards to receive the seat-pivots; and brackets on the standards against which the seats abut when turned down or turned up; substantially as described.

2. In combination, a pair of standards, seats provided with pivots and supported by the said standards, open-mouthed sockets on the standards to receive the seat-pivots, and brackets on the standards against which the seats abut when turned down or turned up; substantially as described.

3. In combination the standards and seat, arm-brackets on the standards and arms with means for fixing the same to the brackets by sliding the arms forwardly into position and means for preventing the retraction of the arms on the brackets, substantially as described.

4. In combination, standards and pivoted seats supported thereby, arm-brackets on the standards with holes of keyhole form, and arms provided with studs 15 to engage said holes and affix the arms to the arm-brackets; substantially as described.

5. In combination, standards and pivoted seats supported thereby, palms on the said standards for the attachment of the backs, and backs adapted to be affixed to the said palms and means to tie the backs to the palms by being slid downward into position; substantially as described.

6. In combination, standards and pivoted seats supported thereby, palms on the standards provided with holes of keyhole form, and backs provided with studs such as 15 to engage said holes and affix the backs and tie the standards together; substantially as described.

7. In combination, standards and pivoted seats supported thereby, detachable backs adapted to be slid into position and to tie the standards together at the top, and tie-bars 19 to tie the standards together at the bottom; substantially as described.

8. In combination, standards and pivoted seats supported thereby, arms affixed to arm-brackets on the standards by being slid forward thereon, and backs affixed to the standards by being slid downward thereon and abutting against the rear ends of the arms so as to prevent displacement of the latter; substantially as described.

9. In combination, standards, seats provided with pivots and supported by the standards, open-mouthed sockets on the standards to receive the seat-pivots, brackets on the standards for the seats to abut against, arms affixed to the standards by being slid forward into position, and backs affixed to the standards by being slid downward into position and adapted to tie the standards together and prevent displacement of the arms; substantially as described.

10. A standard for seats of the kind herein set forth, comprising open-mouthed sockets to receive the seat-pivots, brackets for the seats to abut against, arms and arm-brackets and backs and back-palms and means for attaching the arms and backs thereto by sliding motion; substantially as described.

11. A seat 2 provided with a pair of coaxial pivots 10 combined with open-mouthed notches 9 in the standards 1; substantially as described.

12. In combination with the standards and seats, the arm-brackets and the arms having a pair of studs adapted to fit openings in the arm-brackets to be held by engagement therewith, substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

JAMES GLENCAIRN ARMOUR.
CHARLES SOUTHORN.

Witnesses:
H. C. REYNOLDS,
ROBERT A. SLOAN.