M. B. DODD.

RECLINING OR INVALID'S CHAIR.

APPLICATION FILED NOV. 3, 1913.

1,190,523.

Patented July 11, 1916.

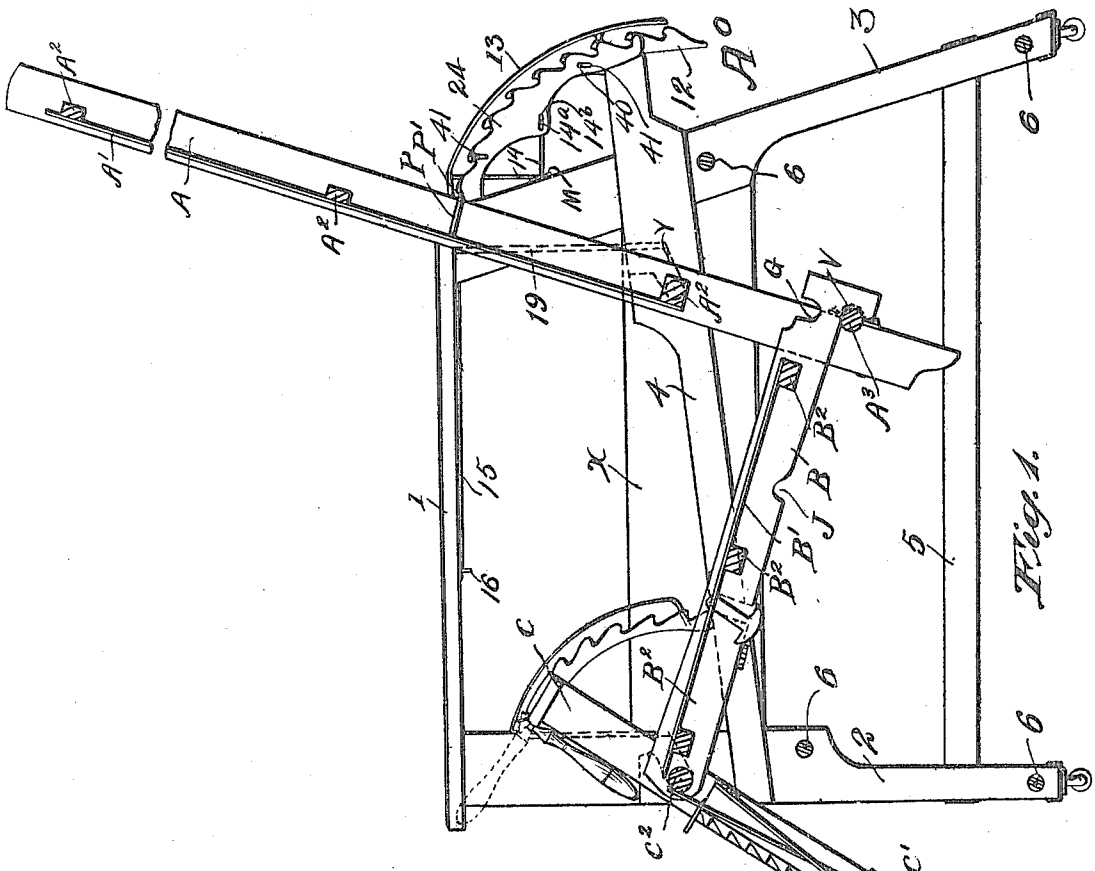


Fig. 1.

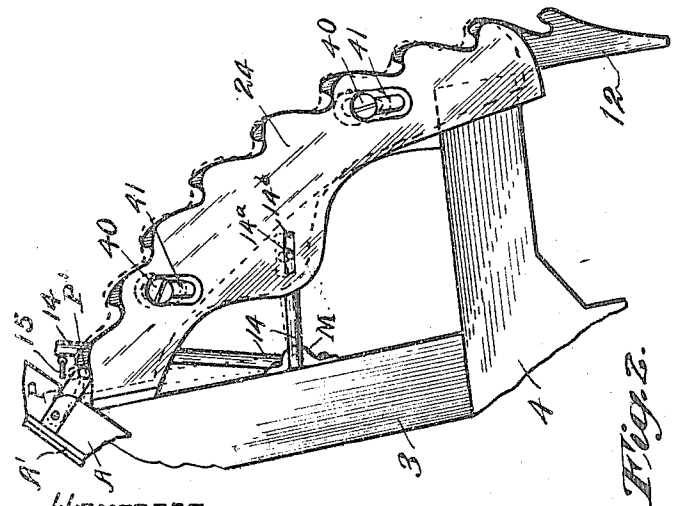


Fig. 2.

WITNESSES

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RECLINING OR INVALID'S CHAIR.

1,190,523. Specification of Letters Patent. Patented July 11, 1916.

Application filed November 3, 1913. Serial No. 798,974.

To all whom it may concern:

Be it known that I, MALCOLM BLAKELY DODD, of the town of Arnprior, in the county of Renfrew, in the Province of Ontario, Dominion of Canada, having invented new and useful Improvements in Reclining or Invalids' Chairs, do hereby declare that the following is a full, clear, and exact description of same.

This invention relates to chairs and the objects of the invention are to permit of the back being readily adjusted as found desirable, and other objects which will be made clear hereafter and it consists essentially of the improved construction of chair particularly described and set forth in the following specification and accompanying drawings forming part of the same.

In the drawings: Figure 1 is a central longitudinal vertical section of the improved chair. Fig. 2 is a detail of the curvilinear rack adapted to control the movement of the chair back.

Like characters of reference refer to like parts in the several drawings.

Referring to the drawings, A^0 represents the improved chair comprising the stand, the seat, the back, and the leg rest. The stand consists of two side supports comprising the vertical member 2, the inclined member 3 and the transversely extending members 4 and the arm rests 1, such supports being suitably connected by the transversely extending rods 6.

The back of the chair is made up of the side members A suitably joined together by means of the transversely extending members A^2 which are preferably mortised into the said side members, the lowest of the said transversely extending members A^2 extending slightly beyond the outer edges of the side members and terminating in turned ends adapted to rotatably engage with the angular upwardly disposed slot Y. A plurality of longitudinally extending strips of resilient material A^1 are mounted on the transversely extending members A^2, the lower portion of the chair back being provided with a rod A^3 extending transversely thereacross the object of which will be made clear hereafter.

The seat of the chair comprises the side members B which are suitably connected by the transversely extending bars B^2 on the upper face of which a plurality of longitudinally extending resilient strips B^1 are mounted, the end of the side members B of the seat adjacent to the back being provided with an upwardly extending slot G in the upper edge thereof adapted to engage the turned ends of the lowermost of the transversely extending members A^2, the said side members being further provided with a slot V on the under edge, adapted to engage with the transversely extending rod A^3 mounted on the chair back. The ends of the members B of the seat remote from the chair back are designed to be pivotally mounted to the side members C of the leg rest intermediate of the ends of the latter by the transversely extending rod C^2, the said leg rest comprising side members C suitably connected by means of the transversely extending rods C^2 and C^3, and having a plurality of longitudinally extending resilient members C^1 suitably mounted on the upper side of the said transversely extending rods.

The stand of the chair is preferably provided with curvilinear racks 12 suitably mounted on the members 3 and 4, such racks being provided with a plurality of transversely extending and upwardly disposed serrations or teeth on the outer edge thereof. One of the racks 12 is adapted to work in conjunction with a second curvilinear rack 24 which is provided with slots 41 extending therethrough adapted to slidably engage with the pins 40 mounted on the fixed curvilinear rack 12 this curvilinear rack 24 being adapted to be actuated by the bell crank lever 14 which is pivotally mounted on the bracket M fixed to the member 3 of the chair stand, one of the arms of the said bell crank being provided with a pin 14^a adapted to slidably engage in the horizontally disposed slot 14^b in the slidably mounted curvilinear rack 24, the other arm of the said bell crank being pivotally connected to one end of the link 15 mounted adjacent to the arm rests 1, such link terminating in a suitable lever handle 16. Links P are pivotally mounted on the side members A of the back and are suitably connected at their outer end by means of the transversely extending rod P^1 the ends of which are adapted to engage with the serrations or teeth of the curvilinear racks 12, which are protected by the curved guards 13 mounted on the members 3 and 4.

In the operation of the device the occu-

pant of the chair when desirous of adjusting the back pushes the lever 16 forwardly thereby actuating the link 15 and the bell crank 14 which in turn elevates the curvilinear rack 24 so lifting the ends of the transversely extending rod P^1 clear of the serrations in the curvilinear racks 12 mounted on each side of the chair stand.

It will be clearly understood that since the serrations in the curvilinear rack 24 are made shallow as shown in Fig. 2 the rod P^1 will clear the several serrations in the racks 12 allowing the back A to rotate about the lowest transversely extending rod A^2 until the desired angle or inclination of the back has been attained when the lever 16 is released whereupon the curvilinear rack 24 will drop back to place by gravity permitting the transversely extending rod P^1 to engage with the serrations in the fixed curvilinear racks 12.

From this description it will be seen that I have invented a chair which is capable of being adjusted into any desired position and that even when the operator is occupying the said chair.

As many changes could be made in the above construction, and many apparently widely different embodiments of my invention, within the scope of the claims, constructed without departing from the spirit or scope thereof, it is intended that all matter contained in the accompanying specification and drawings shall be interpreted as illustrative and not in a limiting sense.

What I claim as my invention is:

1. In a chair of the class described and in combination, a stand, a back pivotally mounted on the said stand, a curvilinear rack mounted on the back of the stand, a second curvilinear rack designed to coact with the first said curvilinear rack, links pivotally mounted on the back, a transversely extending rod carried by the links designed to engage with the first said curvilinear rack, and means for operating the second curvilinear rack, as and for the purpose specified.

2. In a chair of the class described and in combination, a stand, a back pivotally mounted in the said stand, a curvilinear rack rigidly mounted on the back of the stand, pins engaging with the curvilinear rack, a second curvilinear rack provided with slots adapted to engage the pins on the first said curvilinear rack, a bell crank pivotally mounted to the stand having one of its arms coacting with the second curvilinear rack, a manually operated link connected to the second arm of the bell crank, links pivotally mounted on the back, and a transversely extending rod carried by the links designed to engage with the first said curvilinear rack, substantially as described.

Arnprior September 19th 1913.

MALCOLM BLAKELY DODD.

Signed in presence of—
H. Dodd,
Richard Laney.