

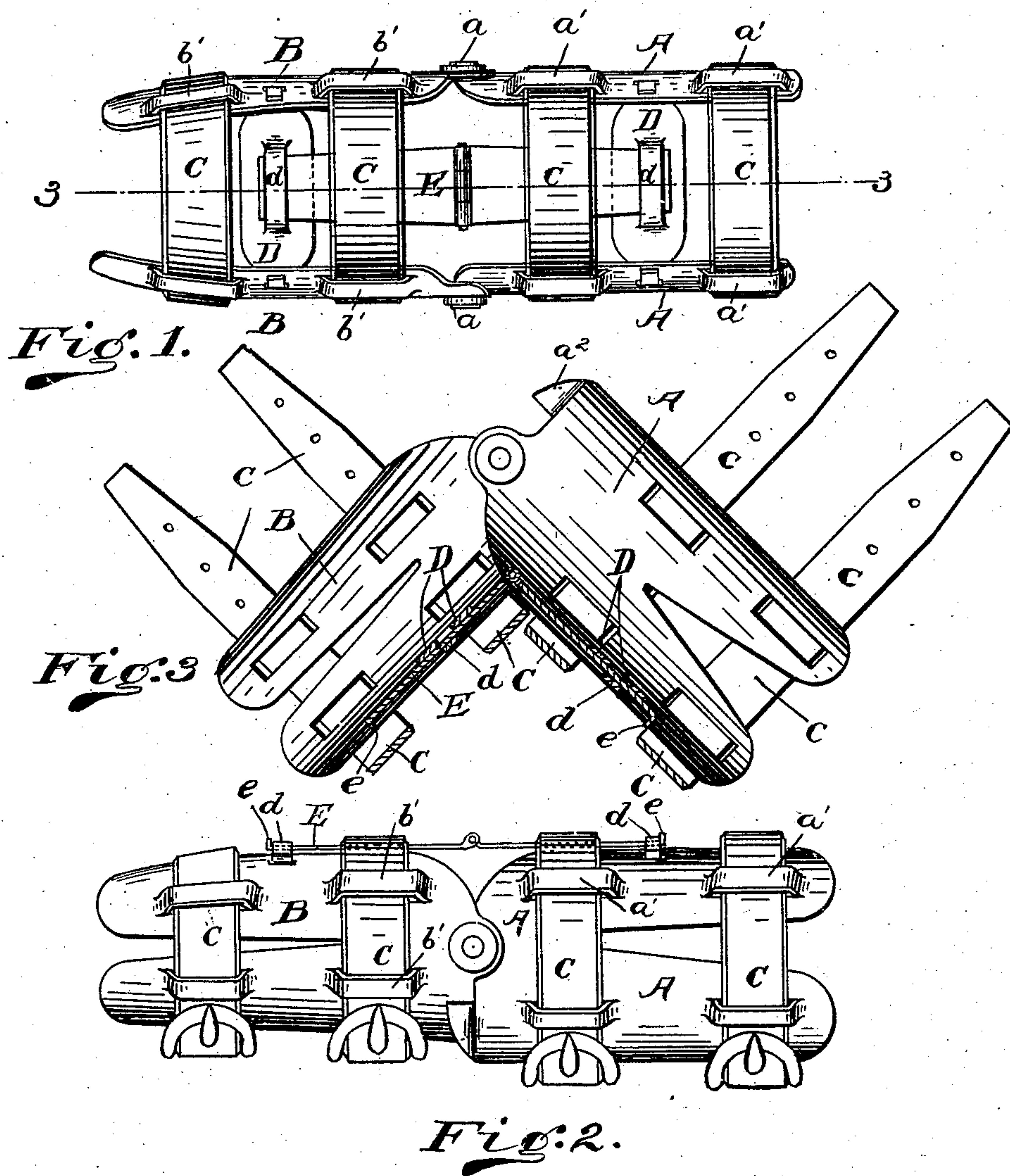
No. 859,962.

PATENTED JULY 16, 1907.

C. D. MESSERSMITH.

KNEE BRACE.

APPLICATION FILED OCT. 6, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

CARL D. MESSERSMITH, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO JOHN R. MESSERSMITH, OF ELMWOOD PLACE, OHIO.

KNEE-BRACE.

No. 859,962.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed October 6, 1906. Serial No. 337,787.

To all whom it may concern:

Be it known that I, CARL D. MESSERSMITH, a citizen of the United States, residing in Cincinnati, in the county of Hamilton and State of Ohio, have invented
5 a certain new and useful Improvement in Knee-Braces, of which the following is a specification.

The object of my invention is more especially to provide a brace adapted to support the knee joint in cases of weakness or want of coördination of the muscles, due to locomotor ataxia or other causes, and the invention consists in the parts and the combination and arrangement of parts hereinafter described and
10 claimed.

In the drawings, Figure 1, is a back view of the brace embodying my invention, showing the parts in the position they would occupy with the leg straight; Fig. 2, a side view; and Fig. 3, a longitudinal section on line 3—3 of Fig. 1, but showing the parts in the position they would occupy with the leg bent at the
15 knee.

My invention comprises members adapted to embrace or partially embrace the leg above the knee; members adapted to embrace or partially embrace the leg below the knee the upper and lower members being pivoted in such manner as to permit them to swing rearwardly but not forwardly; a rear member connected with the side members and adapted to yield forwardly but not rearwardly; and means for securing the brace to the leg.
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I have illustrated the mechanical features only, but it will be understood that the device is to be padded in any suitable manner.
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A and B represent upper and lower brace members pivotally connected at *a* and conforming in a general way to the contour of the leg above and below the knee. These members are preferably made of sheet steel and are provided with loops *a'* and *b'* adapted to receive straps C, by which the brace may be secured to the leg. The upper members are also provided
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with shoulders *a''* adapted to engage with the braces B and limit the forward movement of the brace members. In the rear the brace members A and B are connected by cross pieces D preferably having some freedom of movement relatively to the main brace members. These cross pieces are provided with loops *d* adapted to slidably receive the ends of a hinged rear brace member E, which is free to yield forwardly, but not rearwardly. In the form shown the arms of the brace member E are provided at their outer ends with shoulders *e* adapted to engage the loops on the cross pieces D and limit the sliding motion in one direction.
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It will be seen that my improved brace is adapted to support the knee against abnormal motion in any direction.

I claim as my invention:

1. The combination of brace members adapted to embrace the leg above the knee; brace members adapted to embrace the leg below the knee, the upper and lower members being pivotally connected; a hinged brace member slidably connected with the upper and lower members; and means for securing the brace to the leg, substantially as and for the purpose specified.
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2. The combination of brace members adapted to embrace the leg above the knee; brace members adapted to embrace the leg below the knee, the upper and lower members being pivotally connected; cross pieces connecting the rear of the upper and lower members; a hinged brace member slidably engaging with the cross pieces; and means for securing the brace to the leg, substantially as and for the purpose specified.
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3. The combination of brace members adapted to embrace the leg above the knee; brace members adapted to embrace the leg below the knee, the upper and lower members being pivotally connected and provided with a stop to prevent forward movement; a hinged brace member slidably connected with the upper and lower members; and means for securing the brace to the leg, substantially as and for the purpose specified.
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Witnesses:

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