Oct. 19, 1965 F. F. SULLY 3,212,817

LEGREST SUPPORT FOR WHEEL CHAIRS

Filed Feb. 4, 1964

FIG. 1.

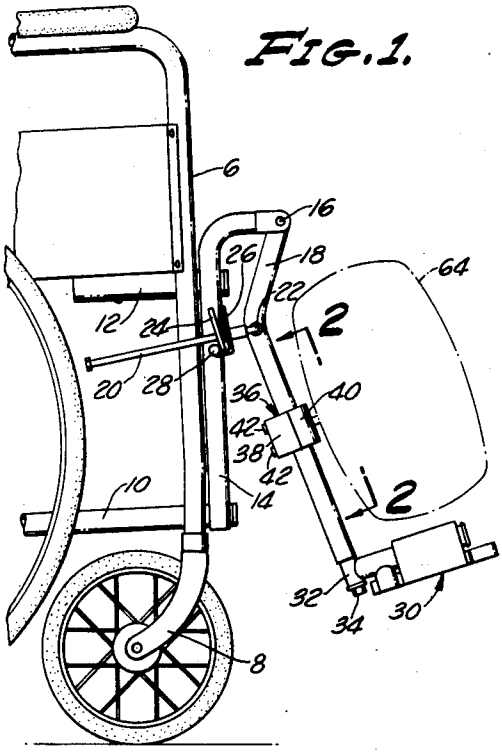
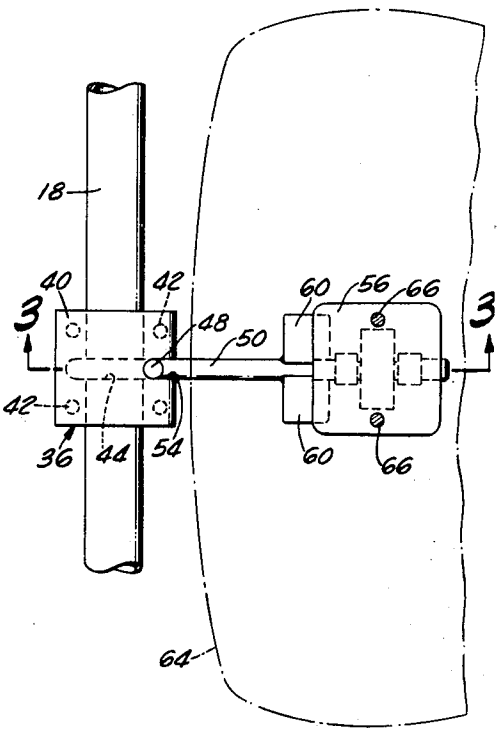


FIG. 2.



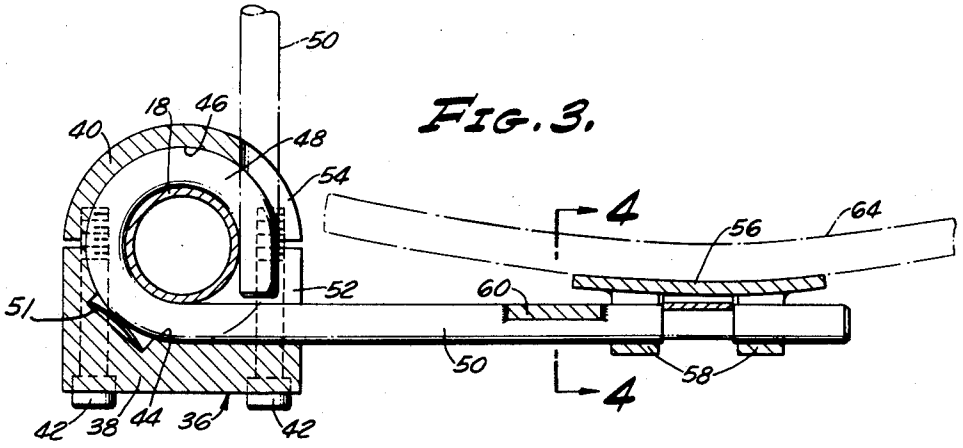


FIG. 3.

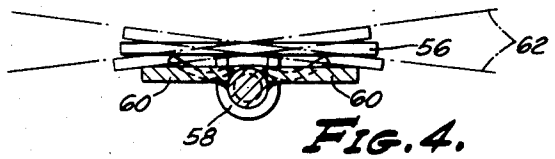


FIG. 4.

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LEGREST SUPPORT FOR WHEEL CHAIRS

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4 Claims. (Cl. 297—429)

This invention relates to a combined wheel chair and legrest and is particularly adapted for a legrest structure which is adapted to be mounted upon a wheel chair footrest and to be adjustable relative to the footrest.

It is an object of the invention to provide a wheel chair legrest which can be mounted upon a conventional footrest bracket in such a way that the legrest can be swung from a leg-supporting position to a position laterally thereof and at right angles to the supporting position, and wherein the legrest can also be adjusted in position longitudinally of the footrest bracket and toward and away from the footrest.

Another object of the invention is to provide a swinging and vertically adjustable legrest including a clamp unit for mounting the legrest on a footrest bracket wherein the clamp is constructed to permit swinging of the legrest about the longitudinal axis of the footrest bracket as well as longitudinal adjustment of the legrest along the axis of the footrest bracket.

The above and other objects will more fully appear from the following description in connection with the accompanying drawing, in which:

FIG. 1 is a side elevational view of the forward portion of a wheel chair with an embodiment of the invention associated therewith, the legrest panel being shown in broken lines;

FIG. 2 is an enlarged detail taken approximately on the line 2—2 of FIG. 1 with the legrest swung approximately 90° from the position shown in FIG. 1;

FIG. 3 is an enlarged sectional detail taken approximately on the line 3—3 of FIG. 2;

FIG. 4 is a sectional detail taken approximately on the line 4—4 of FIG. 3.

In the drawing there is shown a portion of a wheel chair including a forward vertical frame member **6** supported by a caster wheel unit **8** and having a lower horizontal side frame member **10**. Intermediate the ends of the vertical frame member **6** and parallel to the lower frame member **10**, is a short tubular member **12** which with the lower frame member **10** extends slightly forwardly of the vertical frame member **6**. Suitably secured as by welding to the lower frame member **10** and the horizontal tubing section **12** is a footrest mounting **14** which pivotally supports at **16** a cylindrical footrest bracket **18**. The footrest bracket can be swung forwardly and upwardly around its pivot **16** and held at a desired angular position by means of a rod **20** pivotally connected to the footrest bracket at **22** and extending through a pair of spring-biased catch plates **24** and **26**, the latter being welded to a pin **28** extending laterally from the footrest bracket support **14**.

On the lower end of the footrest bracket **18** is a footrest assembly **30** carried by a tubular member **32** which telescopes in the bracket **18** and can be tightened in a desired telescoped position by means of a headed bolt **34** which is adapted to tighten a wedge within the tubular or cylindrical bracket **18** in a well-known manner, not shown, since this structure is not pertinent to the present invention.

Mounted upon the footrest bracket **18** is a legrest clamp **36** made up of two halves **38** and **40** which are held together by four bolts **42** which are slidable through suitable bores in the clamp portion **38** and threaded into the clamp portion **40**.

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Said clamp portions **38** and **40** are interiorly concave to fit about cylindrical footrest bracket **18** and each of said clamp members is provided with internally grooved portions **44** and **46** lying circumferentially about the footrest bracket **18**.

Lying within the circumferentially grooved portions **44** and **46** of the two clamp sections is the grooved end **48** of a legrest panel support **50** which extends outwardly of the clamp through complementary slots **52** and **54** respectively in the clamp sections **38** and **40**, and which communicate with their respective internal grooves **44** and **46**. As shown in FIG. 3 the legrest panel support **50** can be swung about the footrest bracket **18** from the full line to the broken line position of said support against the frictional drag of a leaf spring **51** in the groove **44**, the swinging movement being limited by the spaced ends of the slots **52** and **54**.

The legrest support **50** has journalled thereon a plate **56** which has U-shaped straps **58** to receive the legrest support **50** for relative rotational movement. Extending from opposite sides of the legrest support **50** are stop members **60** which are alternately engaged by the plate **56** when said plate is tilted, the limit of tilting movement being indicated by the broken lines **62** in FIG. 4.

Suitably secured to the plate **54** is a legrest panel **64** which may be fastened to said plate by means of bolts **66**.

The legrest panel **64** is adapted to support a medial portion of the leg between the knee and the ankle when the footrest **30**, on its bracket **18**, is swung forwardly and upwardly so that the leg of the patient will remain approximately in the same relative alignment with respect to the footrest as it would be if the footrest were suspended downwardly, as in FIG. 1. Because of the different leg lengths of patients, it is necessary to adjust the footrest **30** to accommodate a particular patient, and it is likewise highly desirable to shift the legrest panel **64** to accommodate legs of different lengths.

The present legrest panel provides for swinging movement of the legrest support **50**, as indicated in FIG. 3, as well as for longitudinal adjustment of the entire legrest, including the clamp **36** when the footrest **30** is adjusted in length. The legrest clamp **36** provides a simple and economical unit which permits both swinging and longitudinal adjustment of the legrest. At the same time the clamp **36** can be tightened against unwanted longitudinal movement along the footrest bracket **18** by means of the bolts **42** which also keep the clamp from undesirable rotation about the footrest bracket.

It will of course be understood that various changes can be made in the form, details, arrangement and proportions of the various parts without departing from the spirit of the invention.

I claim:

1. In combination with a wheel chair having a cylindrical footrest bracket thereon, a clamp shiftable longitudinally of said bracket, means on said clamp for securing it on said bracket against shifting movement relative to the bracket, said clamp having a slot therein on a plane transverse to the longitudinal axis of the bracket, a legrest panel support having an end swingable about said bracket and extending through said slot outwardly from said clamp portions of said clamp which define the ends of said slot comprising means limiting swinging movement of said legrest panel support from a generally vertical position to a generally horizontal leg supporting position, and a legrest panel on the outwardly extending portion of said support.

2. The structure in claim **1**, and a portion of said slot comprising an internal groove in said clamp partially about said bracket, and another portion of said slot extending radially outwardly from said internal groove to the exterior of said clamp.

3. In combination with a wheel chair having a cylindrical footrest bracket thereon, a clamp shiftable longitudinally of said bracket, means on said clamp for securing it on said bracket against shifting movement relative to the bracket, said clamp having a slot therein on a plane transverse to the longitudinal axis of the bracket, a legrest panel support having an end swingable about said bracket and extending through said slot outwardly from said clamp, a legrest panel on the outwardly extending portion of said support, a portion of said slot comprising an internal groove in said clamp partially about said bracket, another portion of said slot extending radially outwardly from said internal groove to the exterior of said clamp, and that end of said support swingable about said cylindrical footrest bracket being looped about said bracket and slidable in said internal groove, and the outwardly extending portion of said support extending through the radially outwardly extending portion of said slot and being limited by said latter portion of said slot in its swinging movement.

4. In combination with a wheel chair having a cylintudinally of said bracket, means on said clamp for setudinally of said bracket, means on solid clamp for se-

curing it on said bracket against shifting movement relative to the bracket, said clamp having a slot therein on a plane transverse to the longitudinal axis of the bracket, a legrest panel support having an end swingable about said bracket and extending through said slot outwardly from said clamp, a legrest panel on the outwardly extending portion of said support, said clamp being in two parts, detachable connecting means securing said parts, said two parts of said clamp having complementary concave portions to receive said cylindrical bracket, and said concave portions having complementary grooves to receive the end of said support lying about said bracket.

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