

O. F. BERGAN.
SUPPORTING EQUIPMENT FOR KNAPSACKS, VALISES, OR THE LIKE.
APPLICATION FILED MAY 18, 1910.

1,054,818.

Patented Mar. 4, 1913.

Fig. 1.

Fig. 2.

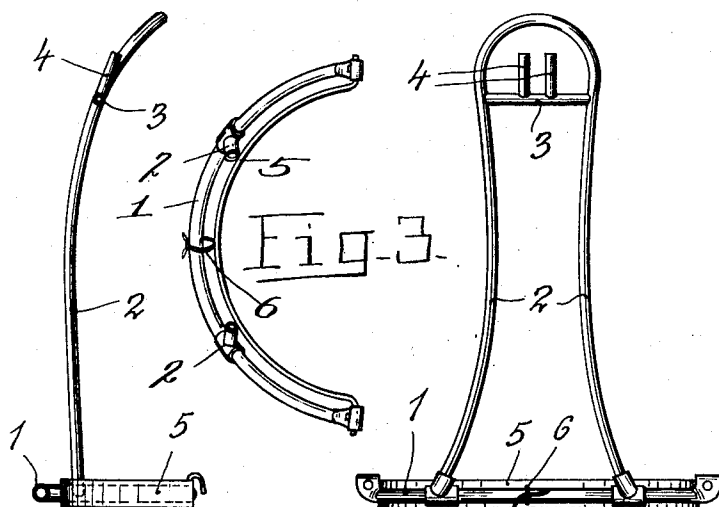
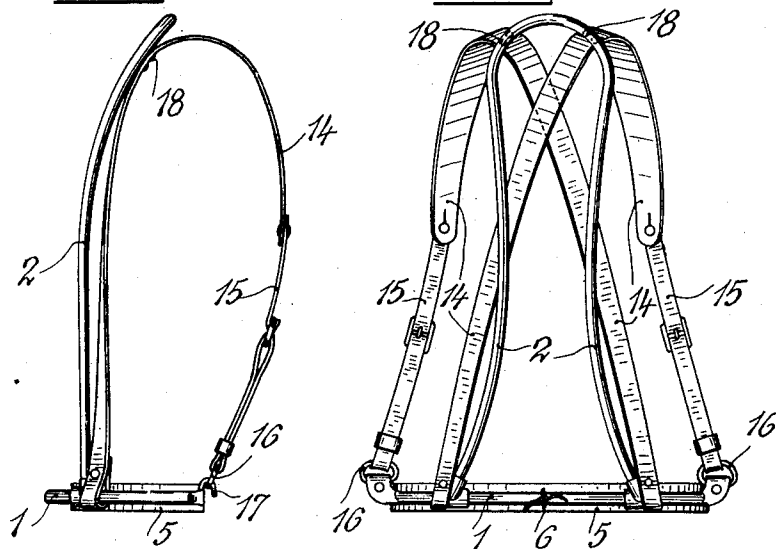


Fig. 4.

Fig. 5.



Witnesses:

[Signature]
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UNITED STATES PATENT OFFICE.

OLE FERDINAND BERGAN, OF TÖNSBERG, NORWAY.

SUPPORTING EQUIPMENT FOR KNAPSACKS, VALISES, OR THE LIKE.

1,054,818.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed May 18, 1910. Serial No. 561,993.

To all whom it may concern:

Be it known that I, OLE FERDINAND BERGAN, manufacturer, citizen of the Kingdom of Norway, residing at the city of Tönsberg, Norway, have invented new and useful Improvements in Supporting Equipments for Knapsacks, Valises, or the Like, of which the following is a specification.

My present invention has for its object to provide a supporting equipment for knapsacks, valises, sport-bags or the like, and is illustrated in the accompanying drawing, in which:—

Figure 1 is a vertical longitudinal section of the supporting equipment. Fig. 2 is a rear view of the same, and Fig. 3 is a plan view partly in section. Figs. 4 and 5 are side and rear view respectively showing a preferred form of the invention.

The supporting equipment is for the most part made of light steel tubes, which at the parts engaging the body of the wearer are provided with straps, bands or the like arranged so as to distribute the pressure over a large surface.

In the construction shown in Figs. 1, 2 and 3 the equipment is made of a lower bent tube —1—, and a second tube —2—, forming an upwardly directed curved part, connected at its lower branches with the tube —1— and provided at its upper part with a cross tube —3—. From the latter project upward two short tube parts —4—. At the ends of the lower bent tube —1— is attached a strap —5—, a band or the like, which near its middle portion is maintained in correct position by means of a lace —6—.

The upper loop of the sport-bag, etc., is hooked to the tube parts —4— and the lower part of the bag is attached to the bent tube —1—. The carrying straps of the bag are directed upward at the inside of the cross tube —3—. Thus, when the bag is put on, the tube —2— holds it clear of the back and by the weight of the bag the bow —1— is pressed against the hips. The strap —5—, however, is so tight, that the said strap throughout its length will engage the body of the wearer without engaging the bent tube —1— at a single intermediate point, the two parts —1— and —5— taking up a relative position such as that shown in Fig. 3. The load pressure directed against the hips is thus distributed uniformly on the body. Moreover the two branches of the tube —2— are so bent, that those branches

can not engage the back. Therefore the equipment is carried comfortably even when supporting a heavy bag, etc.

A further modification of the invention is shown in Figs. 4 and 5. The metal parts of the equipment are constructed like the construction shown in Figs. 1–3, but the tubes —3— and —4— are or may be dispensed with. Straps —14— pass from suitable points of the bow —1— upward and are connected at —18— with the upper curved part of the tube —2—, then they pass downward in order to serve as shoulder straps and are finally jointed to adjustable straps —15— having lower rings —16— to be engaged with hooks —17— formed at the ends of the bow —1—. The parts of the straps —14— located between the part —1— and the points —18— are intended to engage the back of the wearer and they are made sufficiently tight to prevent any engagement between the back and the steel tube —2—.

From the above explanation it is seen, that the pressures of the load in using equipments as described are taken up and uniformly distributed on the hips, on the shoulders and also on the back, and on account of the uniform distribution any fret should be prevented.

It is also understood, that the tightened straps or bands which distribute the pressure may be used advantageously in equipments of usual construction made of wood.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a supporting equipment for knapsacks and the like, the combination of a light frame having a stiff curved hip bar, a relatively taut strap having its ends secured to the ends of said hip bar and extending adjacent the inner face of said bar in substantially concentric relation thereto, the strap serving to uniformly distribute substantially the whole load on the hips and preventing the said hip bar from contacting with the wearer's body, and a pair of curved stiff back bars upstanding from the hip bar and adapted to bear upon the wearer's body only at their upper portions and against the wearer's shoulders.

2. In a supporting equipment for knapsacks and the like, the combination of a light frame having a stiff curved hip bar, a relatively taut strap having its ends secured to the ends of said hip bar and extend-

ing adjacent the inner face of said bar in substantially concentric relation thereto, the strap serving to uniformly distribute substantially the whole load on the hips and
5 preventing the said hip bar from contacting with the wearer's body, a pair of stiff back bars upstanding from the hip bar and so curved that they clear the back of the wearer, straps (14) connected with the
10 spaced points of the hip bar and passing upward and being attached to points (18) of the upper portions of the back bars, then

passing downward in order to serve as shoulder straps, and means releasably connecting the straps (14) with the ends of the 15 hip bars.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OLE FERDINAND BERGAN.

Witnesses:

RICHARD HOKKE,
MOGENS FRAAS BÜGGE.