

J. RENARD.
KNAPSACK AND CARRIER THEREFOR.
APPLICATION FILED AUG. 31, 1911.

1,040,413.

Patented Oct. 8, 1912.

2 SHEETS—SHEET 1.

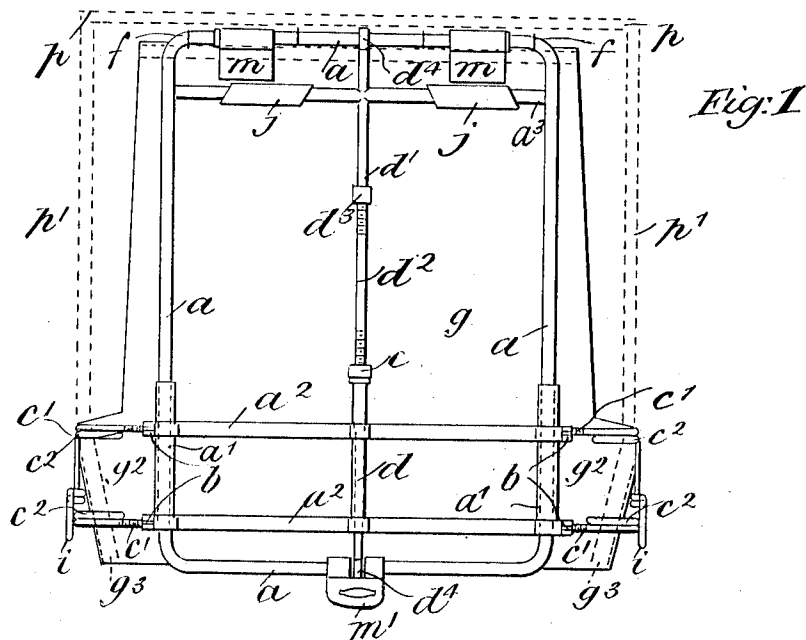


Fig. 2.

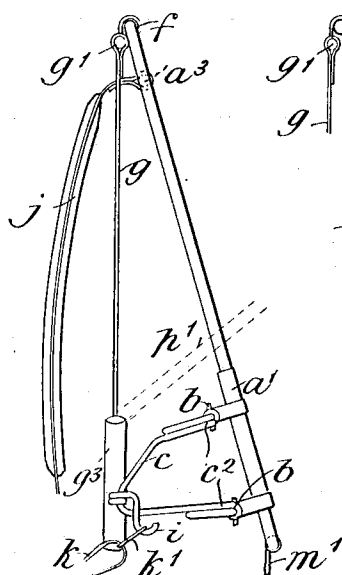


Fig. 3.



Fig. 4.

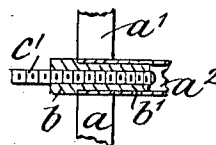


Fig. 6.

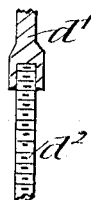


Fig. 5.



Fig. 7.



Witnesses:

A. B. Mattingly

H. D. Penney

By his Attorney

Inventor:

Jorje Renard,

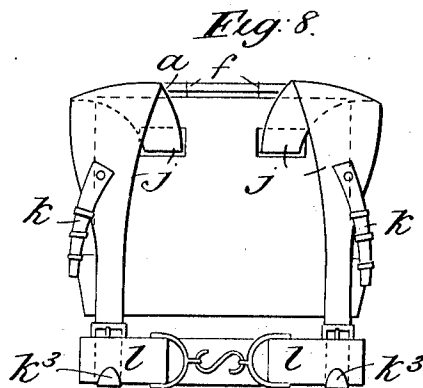
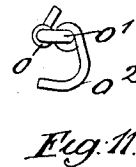
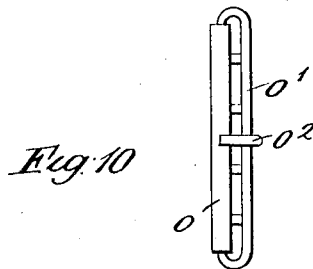
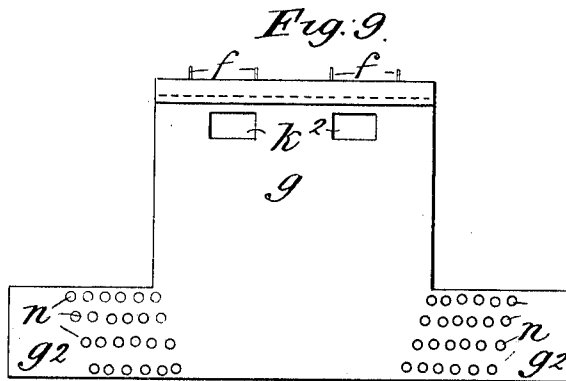
J. W. Richards,

J. RENARD.
KNAPSACK AND CARRIER THEREFOR.
APPLICATION FILED AUG. 31, 1911.

1,040,413.

Patented Oct. 8, 1912.

2 SHEETS-SHEET 2.



Witnesses:
A. B. Mattingly
H. D. Penny

Inventor:
Jorje Renard,
By his Attorney, *J. H. Richards.*

UNITED STATES PATENT OFFICE.

JORJE RENARD, OF LONDON, ENGLAND.

KNAPSACK AND CARRIER THEREFOR.

1,040,413.

Specification of Letters Patent.

Patented Oct. 8, 1912.

Application filed August 31, 1911. Serial No. 647,081.

To all whom it may concern:

Be it known that I, JORJE RENARD, a subject of Chile, residing in London, England, have invented certain new and useful Improvements in Knapsacks and Carriers Therefor, of which the following is a specification.

This invention relates to improvements in and relating to knapsacks for military or other purposes and carriers therefor, and it has for its primary object to provide means whereby the weight of the knapsack and its contents may be distributed over the back in a manner such that local pressure is avoided, and further to provide an air space between the back and the knapsack whereby the back may be kept cool, and finally to support the knapsack in a manner such that while it is substantially rigidly connected to the back, it will not interfere with the movements of the wearer and may be readily released therefrom when so desired.

According to the present invention, I employ a metal or other frame which may be of rectangular or any other desired outline, and which is secured to the person by shoulder straps or in any other convenient manner. Mounted upon the frame and held in a state of tension clear of said frame is a piece of cloth, canvas, or wire woven or other suitable fabric which is designed to come into contact with the back and by conforming more or less closely to the shape thereof to distribute the weight of the load thereover. Instead of a woven fabric I may employ a material formed of cane or the like. The members of the frame are preferably capable of adjustment so that the longitudinal and transverse tension of the fabric may be regulated as desired and provision may be made whereby the load may be added to in emergency, at the same time preserving the advantages of the invention.

In order that the invention may be the better understood, drawings are appended in which:—

Figure 1 is a front elevation of the knapsack carrier. Fig. 2. is a side view. Fig. 3. is a view showing a detail of construction. Fig. 4. is a sectional view of a portion of the device employed for effecting the adjustment of certain members of the frame. Fig. 5 is a plan of same. Fig. 6 is a sectional view showing more clearly the means employed for effecting the adjustment of other mem-

bers of the frame. Fig. 7 is a side view showing a means whereby the knapsack is detachably connected to the frame. Fig. 8. is a front elevation of the device. Fig. 9. is a front view of an alternative form of the fabric support. Figs. 10 and 11 are respectively a side elevation and plan of a means of connection for the fabric shown in Fig. 9 to the frame.

Referring to the accompanying drawings, a indicates a rectangular frame which may be formed of metal or other suitable material and which in the present instance is formed of metal tubing. Slidably mounted upon the vertical members of the frame a by means of the sleeves or runners a^1 is a cross frame formed of two tubular members a^2 secured at their ends to the aforesaid runners by means of the clips or the like, which clips are of such form and construction as to leave the ends of the said members a^2 open.

b indicate nuts provided with extensions b^1 , see Fig. 4 which fit the bore of the tubular members a^2 , and which nuts engage threads formed upon the portions c^1 of the member c which is interposed between the canvas and the frame a . The member c adjacent the screwed portions just referred to, is provided with one or more convolutions such as c^2 whereby a certain resiliency is given the members c whereby not only is the canvas or the like more readily able to conform to the contour of the back of the person carrying the knapsack so that the weight is distributed over the whole surface of the back and local pressure avoided, but the said convolutions by the resiliency they afford, enable the frame with the canvas thereon to be used as hereafter stated as a pillow.

Secured at the center of the transverse member a^2 is a sleeve d through which passes a rod provided at its lower portion with a screw thread and preferably formed in two parts d^1 , d^2 connected by means of a nut d^3 . By forming the rod in two parts connected in the manner shown, it is only necessary in the event of breakage or damage to either of the component members of said rod to replace such damaged or broken member instead of replacing the whole rod as would be the case should said rod be in one piece. The rods d^1 , d^2 at their respective upper and lower ends are provided with eyes d^4 through which eyes are passed the upper and lower horizontal members of the frame a . The

position of the cross frame is adjusted by means of the nut *e* mounted upon the lower screwed member *d*² and bearing upon the upper end of the sleeve *d*. The rod *d*¹ passes
5 through and is secured to a transverse stay or member *a*³ arranged near the upper member of the frame *a*.

Secured to the upper member of the frame *a* by means of hooks *f* is a piece of fabric *g*,
10 said fabric at its upper end being provided with a tubular or other body *g*¹ from which the aforesaid hooks *f* project. The fabric at its lower ends is provided on each side with extensions *g*² to which are secured
15 short lengths of tube or other material *g*³, and each of which tubes is provided with a hook *h* designed to engage the aforesaid U-shaped member *c* whereby the lower end of the fabric is supported. Also secured to
20 each of the members *c* is a hook *i*, the purpose of which will be hereafter explained more fully, said hook being conveniently formed by twisting or bending the body around the vertical portion of the U shaped
25 member as shown, and securing it by solder or other convenient means thereto, the body of the hook being secured to the lower horizontal member of the body *c*. The hook *h* is caused to engage the body *c* between the
30 two points of attachment of the hook *i* whereby it is maintained in position upon said body *c*.

Secured to the transverse member *a*³ of frame *a* are the upper ends of shoulder
35 straps *j* whereby the frame *a* is secured to the person, said straps at the point where they pass over the shoulder being padded so that they not only prevent soreness or galling of the shoulder, but at the same time
40 they form pads upon which a gun may be supported without causing discomfort to the shoulder. The straps *j* have secured to them other straps *k* provided with an eye or link *k*¹ and designed to be passed under the
45 bearer's arms and engage the aforementioned hooks *i*, see Fig. 2, and to assist in retaining the frame in position on the back. The straps *k* pass through openings *k*² in the fabric *g* and at their lower ends are provided with hooks *k*³ designed to engage the
50 belt *l* as shown in Fig. 8 when they assist in supporting the belt and the weight of the cartridge case or accouterments thereon, at the same time securing the frame to the person.
55

*m m*¹ indicate means for securing the knapsacks to the frame, and such means comprise respectively plates which are made of steel or other material of such a
60 nature that they may be sprung over the upper member of frame *a* as shown in Figs. 1 and 7. The plates are perforated or are otherwise provided with means whereby the knapsack may be sewn or secured to them.
65 The plate *m*¹ is secured to the lower member

of frame *a* and is perforated for the passage of a turn button or other fastening which is secured to the knapsack.

By employing means of attachment between the frame *a* and the knapsack such as those described the removal of the knapsack may be readily effected where so desired.

In order to provide for differences in the width of back and height of different
75 wearers, I may employ a fabric arranged as shown in Fig. 9. In this case in place of the tubular bodies *g*¹ being permanently attached to the extensions of the said fabric *g*, I provide a number of eyeleted holes *n*
80 arranged upon lines inclined transversely of said extensions. The eyelets are designed to be engaged by means of the pins or studs upon the buckle like device *o*, Figs. 10 and 11, the bow *o*¹ of which carries a hook *o*²
85 adapted to engage the U shaped member *c* previously referred to. By this means as will be readily understood, a considerable range of adjustment is possible in order to suit the width of the back of the person
90 carrying the device. Instead of this arrangement, any other adjustable means of connection may be provided such as lacings, straps, or other means which will fulfil the functions of the eyelets aforesaid.
95

In order to increase the carrying capacity of the knapsack, I may provide for a second frame *p*, Fig. 1, which may be supported in a horizontal position by means of struts or stays *p*¹, see Figs. 1 and 2 where the
100 parts referred to are shown in dotted lines. The frame *p* may support a second knapsack or any other article or articles, and it may be connected to the frame *a* by means of hooks as in the case of the fabric *g*.
105

Should it be desired to increase the air space between the frame *a* and the fabric *g*, the top of the frame may be set or bent out as shown in Fig. 3.

In addition to its purpose as a knapsack
110 carrier, the frame with the fabric *g* when the knapsack is removed may be laid down with the fabric uppermost when the stretched fabric forms a pillow. By standing the frame on end, and detaching the
115 lower end of the knapsack the frame and knapsack can be inclined relatively to one another and form a rest for a rifle, the person shooting lying behind the said rest.

It will be readily understood that not only
120 is the weight distributed over the back in a manner such as to avoid any local pressure, such for example as would arise should some article of a hard nature be packed in the knapsack in a manner such that it projected slightly beyond the general plane of
125 the back surface of said knapsack, but the distribution of the weight and the air space between the knapsack and the back enables the load to be carried for a much greater
130

distance and with less fatigue to the wearer. Again by arranging the supporting straps for the knapsack in the manner shown and described, the removal of the frame and the knapsack may be instantly effected by disconnecting the hooks k^2 from the belt l and the eyes or links k^1 from the hooks i on the frame a .

Claims:

1. In a support for a knapsack for military or other purposes, a frame, a broad flexible body designed to rest upon the back and attached at one end to the frame, adjustable members on said frame, and means connecting said adjustable members with the sides of the flexible body.

2. In a support for a knapsack for military or other purposes, a rectangular frame, means for securing said frame to the person, a second frame adjustably mounted upon the first frame and a broad flexible body designed to rest upon the back and connected at one end to the first frame, adjustable members on the second frame to which the other end of said flexible body is attached.

3. In a support for a knapsack for military or other purposes, a rectangular main frame, means for securing said frame to the person, a second frame adjustably mounted upon the first frame, a broad flexible body designed to rest upon the back stretched across the support and attached at one end to the main frame, adjustable spring members on the second frame to which the other end of the flexible body is attached.

4. In a support for a knapsack for military or other purposes, a rectangular main frame, a transverse member at the upper end of said frame, straps for securing the frame to the person, attached to said member, a second frame comprising transverse members slidably mounted on the side members of the main frame, a nut and screw on the second frame for adjustment, spring members adjustably supported by said second frame, a broad flexible body designed to rest upon the back stretched across the support and connected at its upper end to the top member of the main frame and at its lower sides to the spring members of the second frame.

5. In a support for a knapsack for military or other purposes, a rectangular main frame, a transverse member at the upper end of said frame, straps attached to said member for securing the frame to the person, a second frame comprising transverse tubular members slidably mounted in the side members of the main frame, spring members telescoping within the ends of the members

of the second frame, a broad flexible body designed to rest upon the back stretched across the support, and attached at its upper end to the top of the main frame, and having its lower sides attached to the adjustable spring members of the sliding frame.

6. In a support for a knapsack for military or other purposes, a rectangular main frame, a transverse member at the upper end of said frame, straps for securing the frame to the person and attached to said member, a second frame comprising transverse tubular members slidably mounted in the side members of the main frame, a member connected at one end to the upper member of the main frame and disposed in the center thereof, a sleeve upon the second frame through which said last mentioned member passes, a nut upon the central member bearing on the upper end of the sleeve, spring members telescoping within the ends of the members of the sliding frame, a broad flexible body designed to rest upon the back stretched across the support and attached at its upper end to the top of the main frame and having its lower sides attached to the adjustable spring members of the sliding frame.

7. In a support for a knapsack for military or other purposes, a rectangular main frame, straps for securing it to the person, attached to the upper end of the frame, a second frame having tubular members slidably mounted on the side members of the main frame, a member connected at one end to the upper member of the frame and disposed in the center of the main frame connected to the lower member of the said main frame and formed in two parts, a socket on the end of one part engaging the end of the other part, a sleeve on the second frame, a nut upon the central member bearing on said sleeve, and through which sleeve the central member passes, spring members telescoping within the ends of the members of the second frame, a broad flexible body designed to rest upon the back stretched upon the main frame and having at its upper end a body, with hooks engaging the upper member of the said main frame, side extensions at the lower end of the flexible body, hooks upon said extensions engaging the spring members on the sliding frame.

Signed in the presence of the two undersigned witnesses.

JORJE RENARD.

Witnesses:

JOHN H. JORK,
W. L. NORTON.