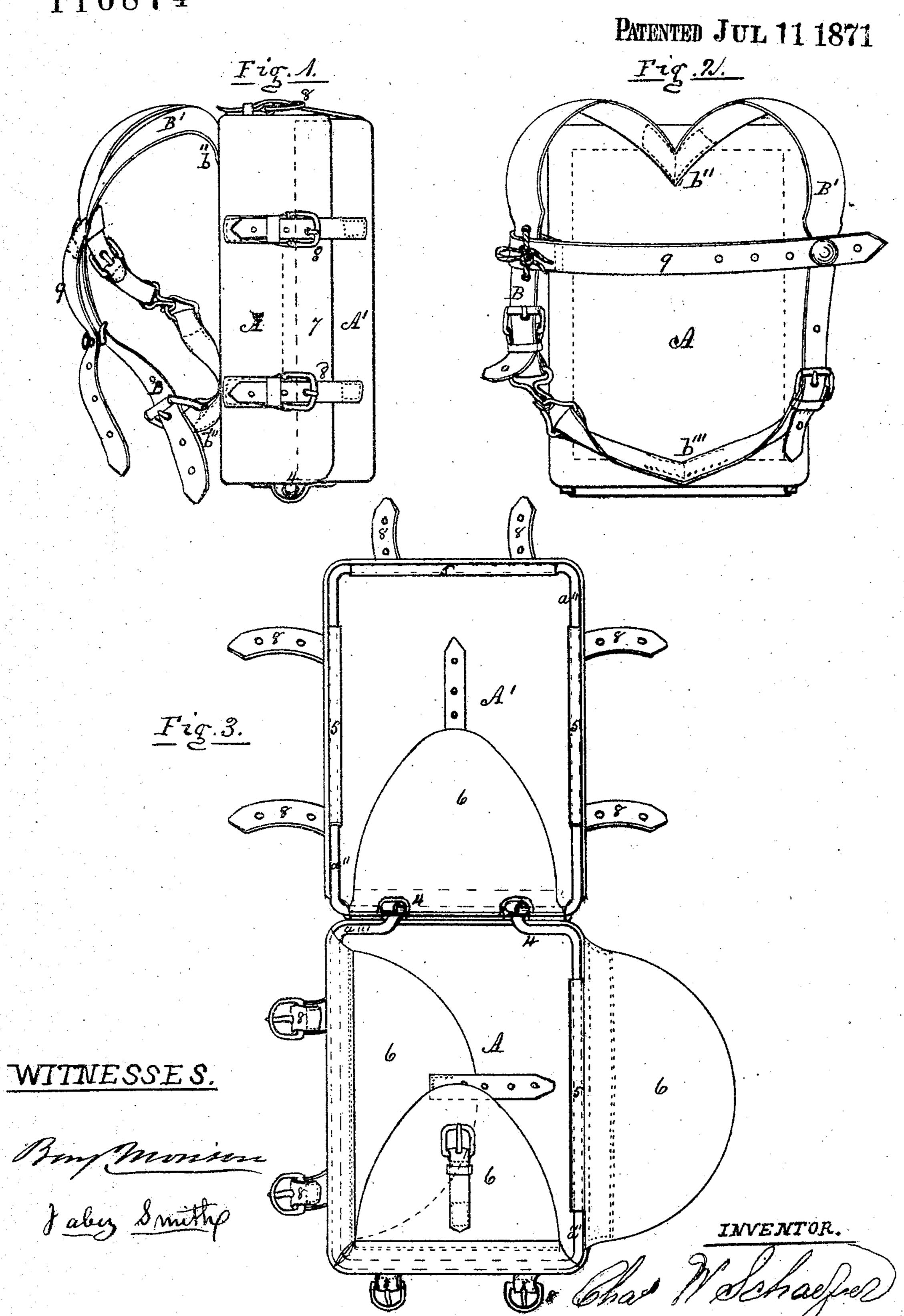
IMPT IN KNAPSACKS. CHARLES W. SCHAEFER.

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UNITED STATES PATENT OFFICE.

CHARLES W. SCHAEFER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN KNAPSACKS.

Specification forming part of Letters Patent No. 116,874, dated July 11, 1871.

To all whom it may concern:

Be it known that I, CHARLES W. SCHAEFER, of the city of Philadelphia, in the State of Pennsylvania, have invented certain Improvements in Knapsacks, of which the following is a specification:

The first part of my invention relates to the construction of a knapsack in two longitudinal halves, connected together by supporting-frames hinged to each other and applied in such a manner that the said knapsack can be readily opened and closed as occasion may require; the object of this part of my invention being to afford better facilities for access and inspection. The second part of my invention relates to the arrangement and attachment of the sling-straps to the back of the knapsack in such a manner that while the strain from the weight of the latter will be in the lines of the attachments the upper end of the knapsack will be maintained in close contact with the back of the wearer and the weight supported mainly by the attachment at the lower end of the same, the object of this part of my invention being twofold: 1st, to relieve the front of the shoulders of the wearer from the weight-pressure of the knapsack by transferring the said pressure mainly to the tops of the shoulders, where it can be borne with less fatigue; and 2d, to prevent any lateral or oscillatory motions of the lower end of the knapsack upon the back of the wearer in marching.

Figure 1 is a side elevation of my said improved knapsack as when closed and slung upon the wearers' back. Fig. 2 is an elevation of the back or sling-side of the said closed knapsack. Fig. 3 is a plan view of the inner sides of the two parts of the knapsack when the same is exercise.

opened for packing or inspection.

The body of the knapsack is divided longitudinally into two corresponding parts, A A', and connected together by two frames, a'' a''', which are hinged or articulated together at 4 4, and secured, respectively, to the parting edges of the two parts by overlappings of leather stitched fast to the said edges. One part, A, is provided with four lapping-pieces, 6 6, fitted with respective straps and buckles, whereby articles packed in the part A may be securely retained therein when the knapsack is opened. (See Fig. 3.) A balance-projection, 7, extends around the outside edge of part A, (see Fig. 1,) which covers the

joint formed between the two parts when closed together, as shown in the figure. The said two parts are held closed together by outside straps and buckles 8 8 attached to the respective sides and upper ends, and the whole knapsack, except the frames and buckles, is made of leather. The sling-straps B B' have their upper ends abutted together obliquely downward in the middle of the upper end of the back of the knapsack and stitched fast thereto, as represented at b'', and their lower ends abutted together in a similar manner obliquely downward in the middle of the lower end of the said back and stitched fast thereto, as represented at b''', the upper and the lower parts of the respective straps being adjustably connected by buckles, a hook, and crossstrap, 9, in the usual well-known manner.

When the knapsack is applied the strain of its weight upon the sling-straps will be in the line of their respective attachments to the knapsack, and, therefore, not likely to be ripped or torn off on the march by the said weight; and the arrangement of the said attachments causes the weight to be supported from the lower end of the knapsack and upon the tops of the shoulders of the soldier, so as to leave the fronts of the shoulders free from any other pressure than the slight one of keeping the upper end of the knapsack from falling back from the shoulders; while at the same time the arrangement of the attachments of the lower ends of the slings to the middle of the lower end of the back of the said knapsack effectually prevents the lateral or oscillatory motions to which the old knapsacks are subject during the march.

It will be readily understood that a knapsack divided into two parts and hinged together as herein described, will afford better facilities, both for packing and inspection, than any of those heretofore used in the army.

I claim as my invention—

A military knapsack in two longitudinal halves, A and A', connected together by the articulated supporting-frames a'' a''' and having the sling-straps B B' secured to the middle b'' b''' of the upper and lower parts, respectively, of the back of the knapsack, all as and for the purposes hereinbefore set forth.

Witnesses: CHAS. W. SCHAEFER. BENJ. MORISON,
JABEZ SMITH.