Jan. 17, 1961 O. C. RIZZO 2,968,105

PNEUMATIC JUMP BOOT CONSTRUCTION

Filed March 3, 1959

Fig. 2

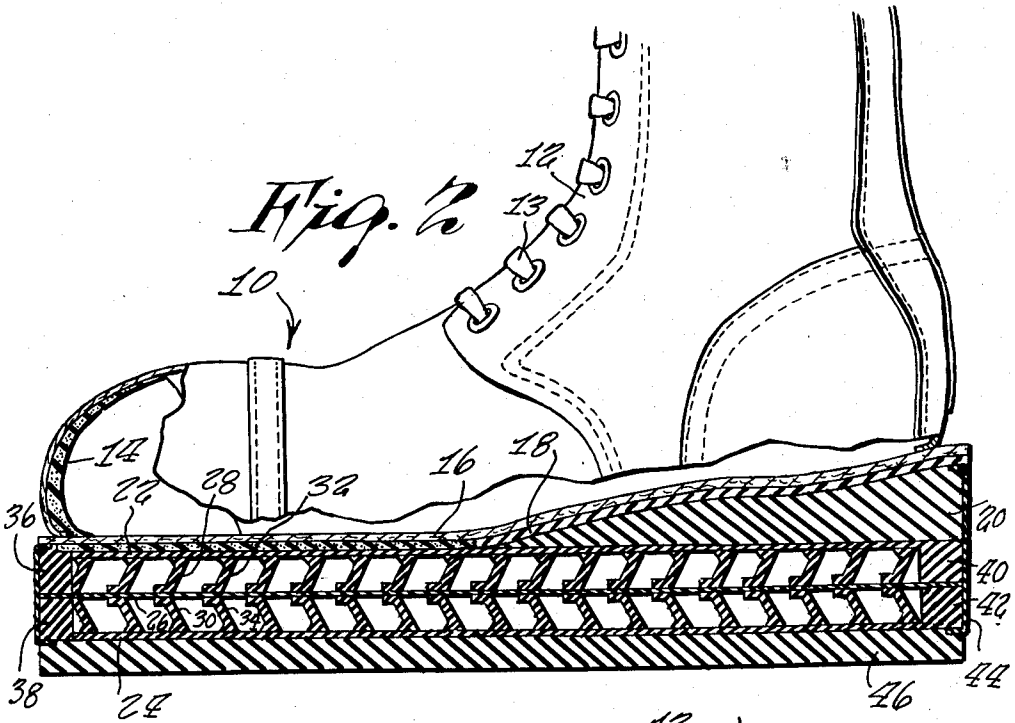


Fig. 1

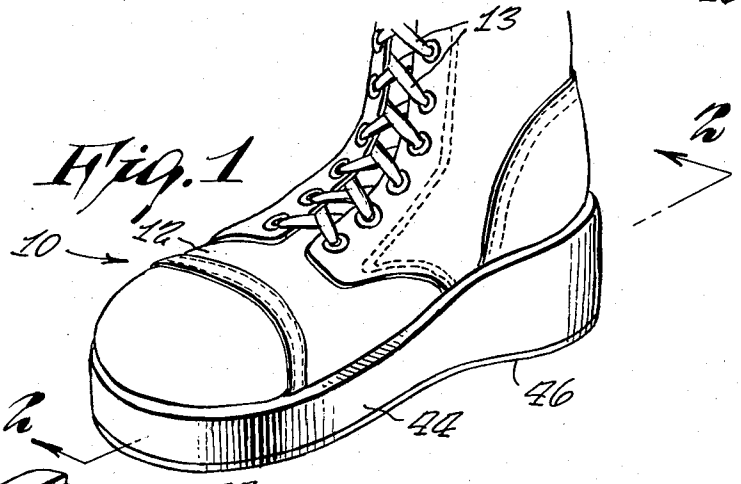
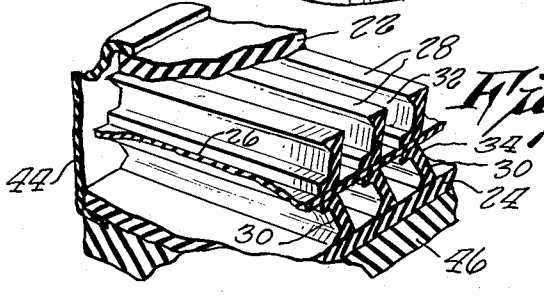


Fig. 3



INVENTOR.
OLYMPIO C. RIZZO
BY
Carl Miller
ATTORNEY

United States Patent Office 2,968,105
Patented Jan. 17, 1961

2,968,105

PNEUMATIC JUMP BOOT CONSTRUCTION

Olympio C. Rizzo, North Bergen, N.J.
(269 Cator Ave., Jersey City 5, N.J.)

Filed Mar. 3, 1959, Ser. No. 796,916

1 Claim. (Cl. 36—2.5)

This invention relates to boots and, more particularly, to jump type boots.

Ordinarily, severe shocks are imparted to the feet and limbs of service personnel landing upon the ground after parachuting from an aircraft. It is therefore an object of the present invention to provide a jump boot that is particularly suited for cushioning severe impact forces ordinarily transmitted to the feet upon landing after a fall from substantial heights.

Another object of the present invention is to provide a jump boot having scientifically arranged cushion elements in the sole and upper portions that will minimize shocks transmitted to the feet in substantially any direction.

Still another object of the present invention is to provide a jump boot of the type described that can be manufactured and fabricated in large quantities at a relatively low cost.

All of the foregoing and still further objects and advantages of this invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing, wherein:

Figure 1 is a fragmentary perspective view of a jump boot made in accordance with the present invention;

Figure 2 is an enlarged fragmentary cross sectional view taken along line 2—2 of Figure 1; and

Figure 3 is an enlarged fragmentary perspective view of certain parts of the present invention.

Referring now to the drawing, a jump boot **10** made in accordance with the present invention is shown to include an upper **12** having laces **13** for tightly securing the upper to a foot. The front end of the upper **12** is provided with a cushion pad **14** for cushioning any shocks imparted to the toes. The bottom surface of the upper **12** is provided with a leather lining **16** attached directly to a resilient layer **18** which also serves to waterproof the interior of the upper.

A resilient wedge block **20** provides a heel at the rear end of the upper and is carried directly upon the top surface of a resilient layer **22**, to which the layer **18** is also secured at its front end.

The resilient layer **22** forms one side of an upper cushion part that is substantially identical in construction to a lower cushion part separated therefrom by a resilient membrane **26**. The upper cushion part aside from the upper resilient layer **22**, includes a plurality of longitudinally spaced apart laterally extending ribs **28** that defines air spaces **32** throughout the entire length

of the sole **46** that is attached to the bottom surface of the resilient layer **24** of the lower cushion part. The lower cushion part also includes similar longitudinally spaced apart and laterally extending ribs **30** that define similar air spaces **34**. In addition, each cushion part is provided with a resilient toe block **36**, **38** and a resilient heel block **40**, **42**, respectively. A thin layer **44** of resilient material encases the upper and lower cushion parts, together with the resilient wedge block, as shown in Figure 1, to prevent the entry of moisture and other foreign matter into the interstices between the respective elements, and to further enhance the appearance of the boot. The substantially flat sole **46**, of generally uniform thickness, is attached to the bottom of the lower cushion part, in the manner clearly shown in Figure 2.

It will now be recognized that all vulnerable parts of the boot are protected by cushion elements of particular design. The laterally extending ribs **28**, **30** not only serve to cushion any shocks against the bottom of the sole **46**, but also provide compressible air spaces that contribute to the cushion effect of the shoe. Any shocks imparted to the front or rear portions of the shoe are further cushioned by the terminal blocks **36**, **38**, **40**, **42**, and the toes are amply protected by the resilient cushion **14** within the front end of the upper. In addition, the various cushion elements, which are preferably constructed from molded foam rubber, tend to waterproof the shoe and retain body heat therewithin so as to particularly adapt this type of boot for use in cold climates.

While this invention has been described with particular reference to the construction shown in the drawing, it is to be understood that such is not to be construed as imparting limitations upon the invention, which is best defined by the claim appended hereto.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A jump boot comprising, in combination, a laced upper, a sole, a cushion connected between said sole and said upper, a wedge block forming a heel support integrally connected between said cushion and said upper adjacent to one rear end of said upper, said sole comprising a substantially flat resilient pad secured to the bottom of said cushion, said cushion comprising an upper cushion part, a lower cushion part, and a resilient layer separating said upper and lower cushion parts, and an exterior resilient strip enclosing said upper and lower cushion parts and said wedge block, said resilient strip extending completely around the periphery of said upper and lower cushion parts and said wedge block.

References Cited in the file of this patent

UNITED STATES PATENTS

1,869,257	Hitzler	July 26, 1932
2,189,813	McGuire	Feb. 13, 1940
2,304,236	Braun	Dec. 8, 1942
2,307,402	Gregg	Jan. 5, 1943
2,412,623	Maling	Dec. 17, 1946
2,677,906	Reed	May 11, 1954
2,845,640	Murray	Aug. 5, 1958

FOREIGN PATENTS

189,623	Great Britain	Dec. 12, 1922