March 13, 1951 R. J. MEEHAN 2,545,209

DISCERPTIBLE SKI

Filed June 10, 1948 2 Sheets-Sheet 1

Fig. 1.

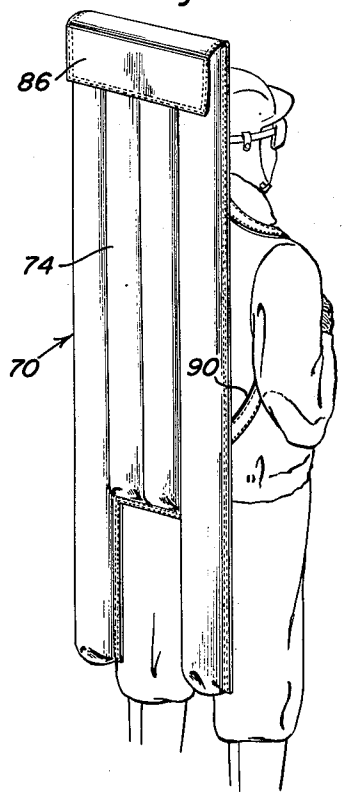


Fig. 3.

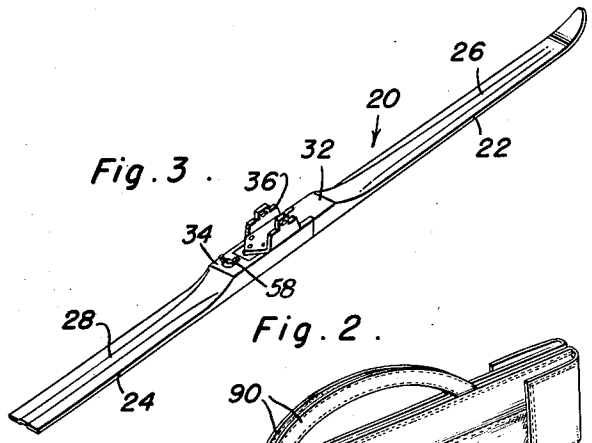


Fig. 2.

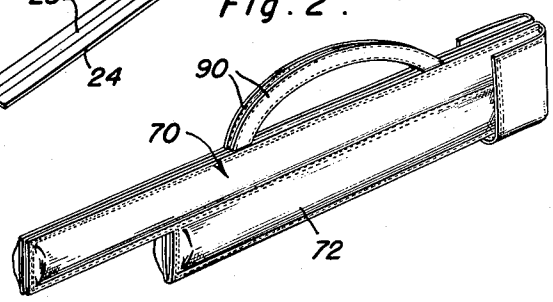


Fig. 10.

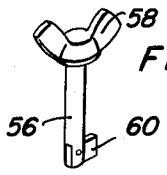


Fig. 4.

Reginald J. Meehan
INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jackson
Attorneys

March 13, 1951 R. J. MEEHAN 2,545,209

DISCERPTIBLE SKI

Filed June 10, 1948 2 Sheets-Sheet 2

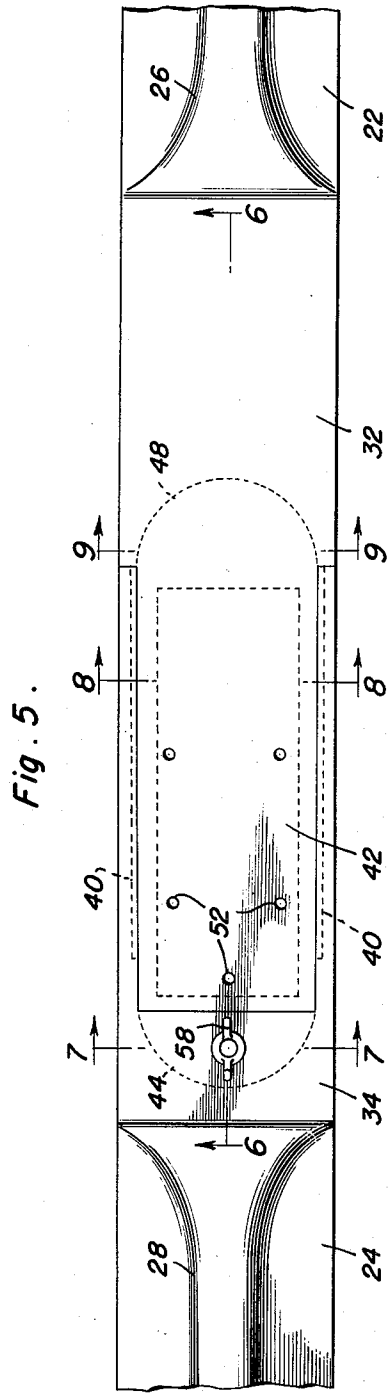


Fig. 5.

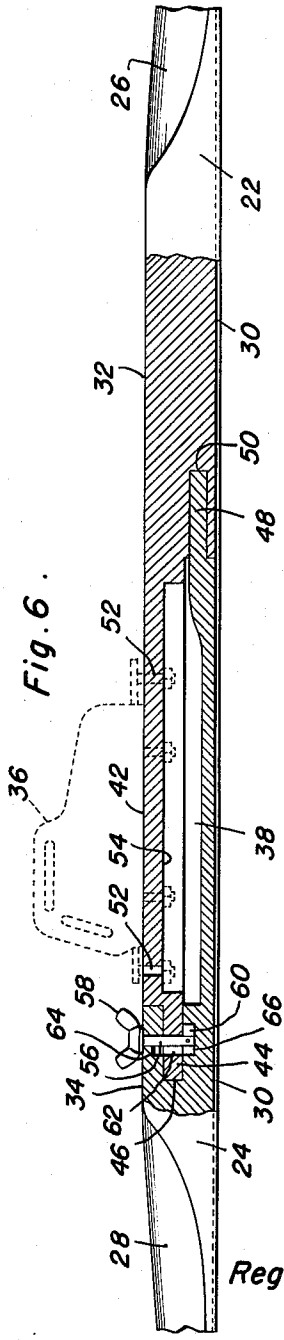


Fig. 6.

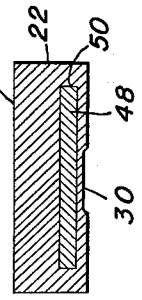


Fig. 9.

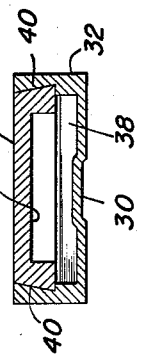


Fig. 8.

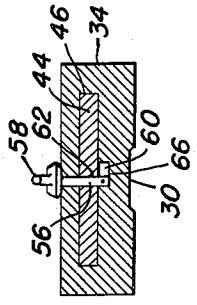


Fig. 7.

Reginald J. Meehan
INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

Patented Mar. 13, 1951

2,545,209

UNITED STATES PATENT OFFICE

2,545,209

DISCERPTIBLE SKI

Reginald J. Meehan, East Hartford, Conn.

Application June 10, 1948, Serial No. 32,076

1 Claim. (Cl. 280—11.13)

1

This invention relates to new and useful improvements and structural refinements in skiing equipment, and the principal object of the invention is to facilitate convenient portability of skis while they are not being used.

This object is achieved in a twofold manner, primarily by forming each ski in a pair of disconnectible sections, and secondly, by providing what may be referred to as a carrier to receive the disconnected ski sections.

When it is realized that conventional skis are approximately seven feet in length, the advantages afforded by the invention are readily appreciated. That is to say, although the skis used in the invention are, when assembled, of the conventional seven foot length, the carrier containing the disconnected ski sections is barely over four feet long, and may not only be conveniently carried, but may also be unobtrusively stored on the trains, automobiles, or in the home when the skis are not being used.

The invention also contemplates the fulfillment of even greater functional and utilitarian prerequisites, namely, in time of war when airborne paratroopers are discharged from aircraft together with ski equipment for use on snow covered terrain of the enemy. Conventionally, the procedure followed under such circumstances was for the paratroopers to jettison their skiing equipment with parachutes from the aircraft, while they themselves followed the equipment, also employing parachutes. It is easily understandable that even under normal atmospheric conditions but particularly under conditions of high wind, the paratroopers and their skiing equipment landed in widely scattered locations, and upon landing a state of great confusion arose while each paratrooper endeavored to locate his skiing equipment. This confusion was by no means diminished by the fact that the activity took place, in many instances, on terrain covered with several feet of soft snow, and possibly, in the presence of enemy attack.

Obviously, a procedure of this nature leaves much to be desired, and it will be apparent after perusing the following disclosure, the invention substantially minimizes if not completely eliminates the obvious disadvantages of the conventional airborne ski troop practices.

A paratrooper, equipped with the invention, carries his disconnected ski sections in a carrier on his back, so that with his hands free and by employing only one parachute, he is fully able to jump out of the aircraft, and land, still accompanied by his skiing equipment, so that he

2

may readily apply the skis to his feet without moving from the exact location of his landing. Moreover, it will be noted that the carrier containing the disconnected ski sections, will effectively protect the back of the paratrooper from enemy gun fire, this being a desirable feature which cannot be over-emphasized.

It will be apparent from the foregoing introduction that the facility of storing disconnected ski sections in a comparatively small carrier is made possible by the discerptible nature of the skis, but it should be realized that the broad idea of forming skis in disconnectible sections is not as simple as it may seem. After extensive experimentation and study, I have found that the conventional wooden skis do not lend themselves to discerptibility in a practical manner, inasmuch as the wood material is unable to satisfactorily withstand the stress and strain to which the sections are subjected when connected together and placed in use. Accordingly, the invention contemplates the formation of discerptible skis from metal, such as for example, magnesium alloy, which not only possesses the required characteristics of durability, but which also renders the skis extremely light and easy to carry.

Moreover, I have found that the substitution of metal for wood in skis facilitates relatively faster skiing speeds, since a comparatively lesser coefficient of friction exists at the surface of contact of the ski with the snow.

As will be apparent from the following disclosure, one of the important features of the invention resides in the provision of means for securely locking the disconnectible ski sections together, yet at the same time, permitting the ski sections to be readily and conveniently separated, when so desired.

Important advantages of the invention reside in its simplicity of construction, and in its adaptability to economical manufacture.

With the above more important objects and features in view, and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of the ski carrier in situ on the back of the user;

Figure 2 is a perspective view of the carrier in readiness to be carried by hand;

Figure 3 is a perspective view of a ski constructed in accord with the invention, the same being shown in an assembled form;

Figure 4 is a fragmentary perspective view showing the ski sections disconnected;

Figure 5 is a fragmentary top plan view of the connected ski sections;

Figure 6 is a cross-sectional view, taken substantially on the plane of the line 6—6 of Figure 5;

Figure 7 is a cross-sectional view, taken substantially in the plane of the line 7—7 in Figure 5;

Figure 8 is a cross-sectional view, taken substantially in the plane of the line 8—8 in Figure 5;

Figure 9 is a cross-sectional view, taken substantially in the plane of the line 9—9 in Figure 5; and

Figure 10 is a perspective view of a locking pin used in the invention.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, the discerptible ski designated generally by the reference character **20** will be described, a pair of these, of course, being used, but since they are substantially similar in construction, a description of one will suffice for both.

The discerptible ski **20**, when assembled as shown in Figure 3, is of a substantially conventional external configuration, but is composed of two disconnectible sections, namely, a forward section **22** and a rear section **24**.

It is to be noted that the sections **22**, **24** are formed on their upper surface with longitudinal reinforcing ribs **26**, **28**, respectively, while the under surfaces of the sections are longitudinally grooved in the conventional manner, as at **30**.

The rear end portion **32** of the forward ski section **22** is thickened, as is the forward end portion **34** of the rear section **24**, thus providing a foot receiving platform equipped with a suitable bracket **36** to receive the conventional foot strap or harness (not shown).

As has been already stated, the ski **20** is of metallic construction, being formed from magnesium alloy, aluminum, or the like, and one of the features of novelty in the invention resides in the provision of means for securely yet disconnectibly locking together the two sections **22**, **24**.

These means include the formation of a recess **38** in the forward portion **34** of the ski section **24**, the recess **38** being provided at the sides thereof with a pair of dovetailed guides **40**, which are intended to slidably receive a complementarily dovetailed tongue **42**, which extends rearwardly from the rear portion **32** of the front ski section **22**.

It is to be observed that the tongue **42** terminates in a substantially semi-circular, downwardly offset tenon **44** which is receivable in a complementarily configurated mortice **46** formed in the forward portion **34** of the ski section **24**, while a similar tenon **48**, formed integrally with the forward portion **24** is receivable in a similar mortice **50** provided in the rear portion **32** of the ski section **22**, as is best shown in Figure 6.

By virtue of this structural arrangement, proper longitudinal alignment of the two ski sections is assured, and moreover, the ski sections, being properly interlocked, are prevented from relative twisting or distortion. The formation of the various mortices and tenons, as well as of the dovetailed tongue **42** and guides **40**, is facilitated by the metallic construction of the ski, it being obvious that the conventional wooden skis, particularly in the presence of moisture, would be subjected to considerable contraction and expansion, whereby proper interfitting or interlocking of the various elements would not be possible and distortion would result.

It may be also explained at this point that the aforementioned harness bracket **36** (of conventional nature) is secured to the tongue **42** by suitable bolts and nuts as shown in Figure 6, the securing bolts passing through suitable apertures **52** formed in the tongue **42**, while the nuts are disposed in a recess **54** provided on the underside of the tongue. Here again, the machined metallic construction of the ski facilitates the use of bolts and nuts in place of wood screws conventionally employed, the bolts and nuts obviously being more secure and preventing the bracket **36** from shifting on the ski or possibly becoming detached therefrom.

Means are employed for locking the sections **22**, **24**, together, these means including a locking pin **56** provided with a wing nut-shaped head **58** and also equipped with a lateral projection **60**, as is best shown in Figure 10. The pin **56** is rotatably and slidably receivable in a keyhole-shaped aperture **62** formed in the aforementioned tenon **44**, and also, the projection **60** of the pin is receivable in suitable recess **64**, **66** provided in the portion **34** of the ski section **24**. (See Figure 6.) That is to say, the pin **56** may be withdrawn upwardly so that the projection **60** is disposed in the recess **64**, thereby permitting the tenon **44** to be withdrawn from the mortice **46** and facilitating separation of the ski sections **22**, **24**.

On the other hand, the pin **56** may be pushed downwardly through the aperture **62** and may then be rotated so that the projection **60** engages the under surface of the tenon **44** (while being disposed in the recess **66**), thereby locking the two ski sections together.

It is believed that the advantages and use of the invention will be clearly apparent from the foregoing disclosure and accordingly, further description thereof at this point is deemed unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

Having described the invention, what is claimed as new is:

In a discerptible ski, the combination of a forward ski section and a rear ski section, the forward portion of the rear ski section being provided with an elongated recess having an open top, an open forward end, a pair of downwardly divergent side walls, and a bottom projecting forwardly beyond front edges of said side walls to afford a front tenon having its lower surface spaced above the lower surface of the associated ski section, the rear portion of the front ski section being reduced in thickness and in width to afford an elongated tongue positioned in said recess and having downwardly tapered side edges in complemental engagement with said side walls, a lower portion of the forward section being provided forwardly of said tongue with a mortice to receive said front tenon, a rear tenon projecting rearwardly from said tongue and having its top surface spaced below the top surface of the tongue, said rear section being provided at the rear end of said recess with a mortice to receive

said rear tenon, said rear section and said rear tenon having vertically registerable apertures, and a locking pin removably positioned in said apertures to prevent separation of said sections.

REGINALD J. MEEHAN.

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