

Dec. 26, 1939.

J. W. CLARK

2,184,487

FOLDING CHOCK

Filed July 26, 1939

2 Sheets-Sheet 1

Fig. 1.

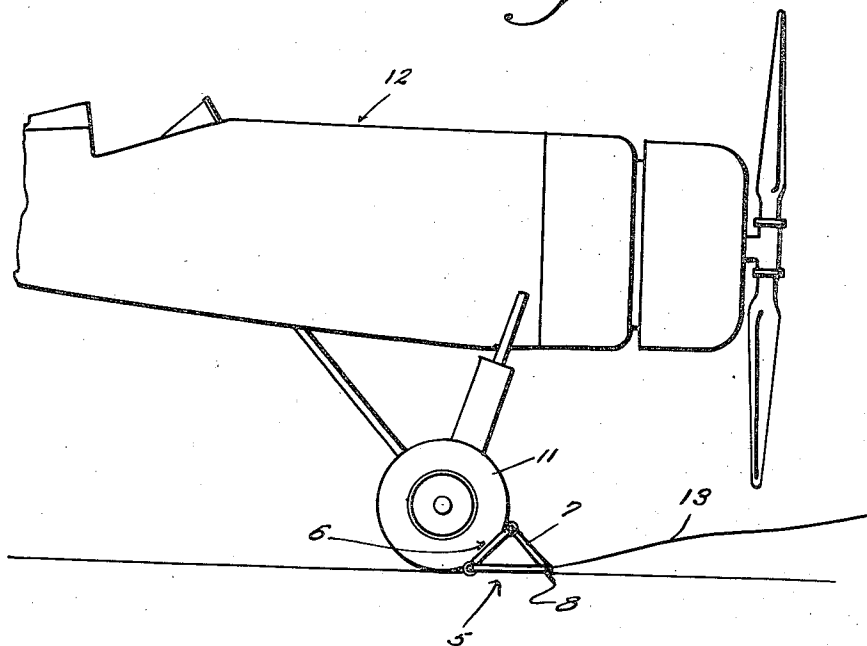


Fig. 2.

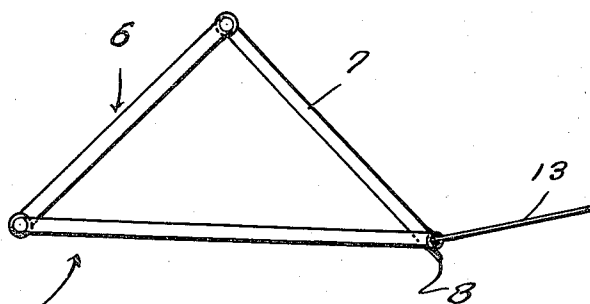


Fig. 3.

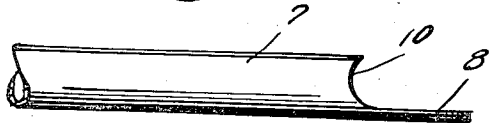
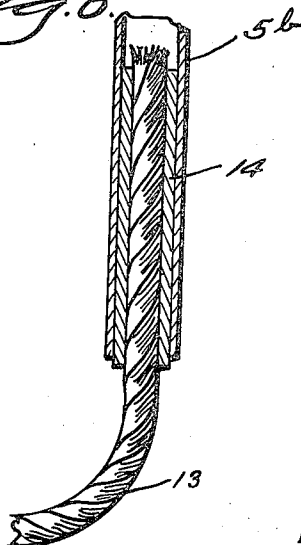


Fig. 6.



Inventor

J. W. Clark

By

Clarence A. O'Brien
and Hyman Berman
Attorneys

Dec. 26, 1939.

J. W. CLARK

2,184,487

FOLDING CHOCK

Filed July 26, 1939

2 Sheets-Sheet 2

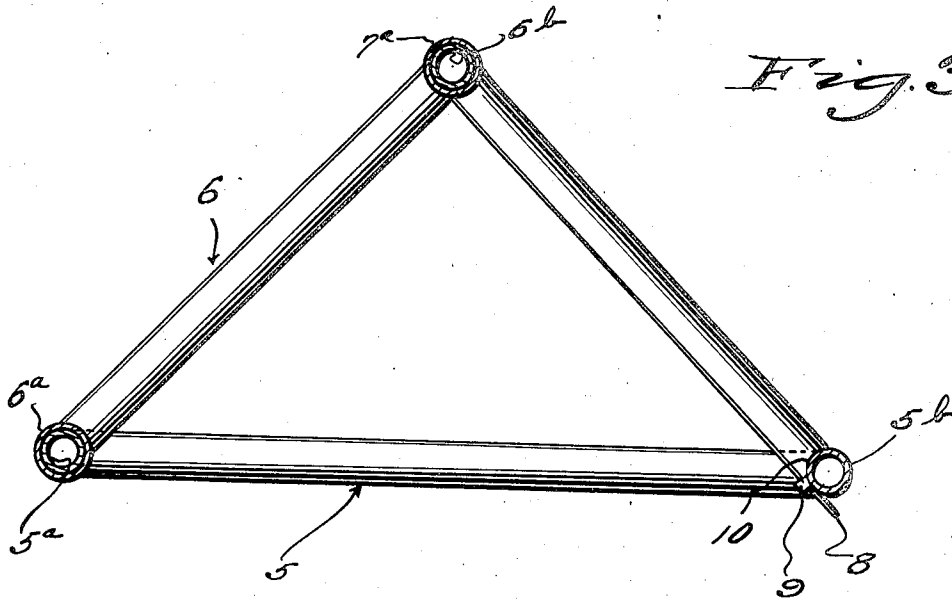


Fig. 3.

Fig. 4.

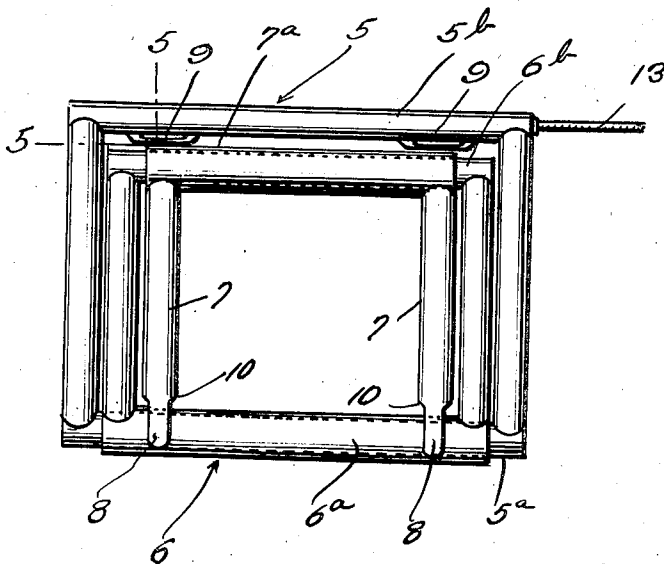
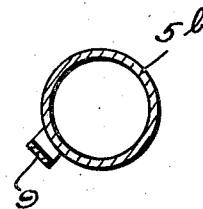


Fig. 5.



Inventor

J. W. Clark

By *Clarence A. O'Brien*
and Hyman Berman
Attorneys

UNITED STATES PATENT OFFICE

2,184,487

FOLDING CHOCK

John W. Clark, De Witt, Iowa

Application July 26, 1939, Serial No. 286,724

4 Claims. (Cl. 188—32)

This invention relates to wheel chocks, and particularly to chocks of a collapsible or folding type for chocking or wedging the ground wheels of an airplane or the like.

5 An object of the present invention is to improve generally upon known chocks particularly designed for the purpose above mentioned, and to provide a chock all the parts of which, when the chock is collapsed, lie substantially within a single plane so as to be readily placed in a carrying kit or the like, they thus require but little storage space.

10 The invention together with its objects and advantages will be best understood from a study of the following description taken in connection with the accompanying drawings wherein—

15 Figure 1 is a view illustrating the application of the invention.

Figure 2 is side elevational view of the chock set up for use.

20 Figure 3 is a sectional view of the chock set up for use.

Figure 4 is a plan view of the chock in a collapsed or folded position.

25 Figure 5 is a sectional view taken substantially on the line 5—5 of Figure 4.

Figure 6 is a fragmentary detailed sectional view showing the manner of securing an end of a connecting rope to one of the chocks, and

30 Figure 7 is a fragmentary side elevational view of one of the strut or brace members forming part of the chock.

Referring more in detail to the drawings it will be seen that the improved chock comprises a base frame 5, a bearing frame 6, and struts 7 for the bearing frame.

Both of the frames and the struts are preferably formed of metal tubing, and particularly that type of tubing known as "aircraft tubing".

40 The base frame 5 is of a size to accommodate substantially within the confines thereof the bearing frame 6. This bearing frame 6 has one side 6—a thereof opened at its ends to provide a hinge sleeve accommodating one side 5—a of the base frame 5 whereby said frames 5 and 6 are hingedly connected together.

45 The struts or brace members 7 at one end thereof are integral with a tubular member 7—a at the respective opposite ends of said member 7—a. The member 7—a forms a hinge sleeve which accommodates a side 6—b of the frame 6, said side 6—b of the frame 6 constituting a hinge pin and thus co-operating with the hinge member 7—a for hingedly connecting the struts 7 to the bearing frame 6.

As shown, when in folded condition, the struts 7 lie substantially within the plane of the frame 6, and at the free ends thereof the struts 7 are formed to provide integral anchoring prongs 8 that rest on the hinge sleeve 6—a of the frame 6 when the chock is in the fully collapsed or folded position shown in Figure 4.

5 Further, the side 5—b of the base frame 5 is provided with apertures 9, the apertures in the present instance, being in the form of loops as shown, and are adapted to have trained there-through the prongs 8 of the struts 7 with the shouldered portions 10 of the struts 7 resting on said side 5—b of the frame 5 in a manner clearly shown in Figure 3 whereby to secure the chock 15 in the extended position for use shown in Figure 2.

In this connection, and as shown clearly in Figures 2 and 3, when the chock is thus set up for use, the prongs 8 extend beyond the side 5—b of frame 5 to thus pierce or penetrate the ground and thus act as anchoring prongs to secure the chocks against creeping.

25 Preferably two chocks are used, one for each of the ground wheels 11 of an airplane such as shown fragmentarily in Figure 1 and indicated by the reference numeral 12.

The chocks of said pair are connected together through the medium of a rope or other flexible element 13.

30 The rope 13 has on each end thereof a split bushing 14 of wood or other suitable material that is inserted in one end of the side member 5—b of a chock. The bushing 14 is bored to the proper size for the rope 13, turned to the proper size for the tubing, driven solidly into an end of the side 5—b of the frame 5 and cemented therein. By so providing such a bushing the rope is safeguarded against being cut by the otherwise sharp edge of the tubing forming the sides 5—b of the frames 5 of the respective chocks.

40 The manner of using the chock, its construction, utility and advantages are all thought to be clear from the foregoing, it being noted, that when not in use, and folded, the bearing frame 6 lies substantially wholly within the plane of the base frame 5 and the struts 7 lie substantially wholly within the plane of the frame 6 with the result that the same may be placed within an envelope or the like provided therefor and will require but relatively small storage space.

50 It will also be apparent that in setting the chocks up for use the frame 6 is swung in one direction relative to the frame 5 to substantially the position shown in Figures 2 and 3, the struts 55

7 then swung relative to the frame 6 in a reverse direction to the end that the prongs 8 may be readily trained through the apertures or loops 9 with the shoulders 10 coming into abutting engagement with the side 5—5 of the base frame shown in Figure 3; the prongs 8 projecting beyond the base frame so as to bite or penetrate into the ground to prevent creeping of the chocks.

When the chock block is placed on the ground against the front of the wheel as shown in Figure 1, the tire of the wheel will engage the bearing frame 6, and the device will serve effectively in holding the wheel against forward movement.

Having thus described the invention, what is claimed as new is—

1. A wheel chock embodying a base frame, a bearing frame hinged at one side thereof to one side of the base frame, and struts hinged at one end thereof to one side of the bearing frame, said struts being disposed inwardly from the respective opposite ends of the bearing frame, and said bearing frame being smaller than said base frame whereby said bearing frame and struts, when the chock is folded, are substantially wholly within the plane of the base frame, with the struts lying substantially wholly within the plane of the bearing frame, and interengaging means on the free end of said struts and on one side of said base frame for connecting the struts thereto when the chock is in an extended position, and to thereby secure the bearing frame at the proper angle to the perpendicular.

2. A collapsible wheel chock comprising a base frame, a bearing frame hinged at one side thereof to one side of said base frame, a hinge sleeve on the side of the bearing frame opposite to the first named side of said frame, struts extending laterally from said hinge sleeve adjacent the respective opposite ends of the latter, said struts having at the free ends thereof shoulders and an-

choring prongs extending beyond said shoulders, and said base frame at the side thereof opposite to the first named side of the base frame being provided with loops through which said anchoring prongs are threaded for securing the block in an unfolded position for use.

3. A collapsible wheel chock comprising a base frame, a bearing frame hinged at one side thereof to one side of said base frame, a hinge sleeve on the side of the bearing frame opposite to the first named side of said frame, struts extending laterally from said hinge sleeve adjacent the respective opposite ends of the latter, said struts having at the free ends thereof shoulders and anchoring prongs extending beyond said shoulders, and said base frame at the side thereof opposite to the first named side of the base frame being provided with loops through which said anchoring prongs are threaded for securing the block in an unfolded position for use, and said prongs being of a length to pass entirely through said loops for engagement with the ground for anchoring purposes.

4. A pair of collapsible chocks each embodying a base frame, a bearing frame hinged at one side thereof to one side of the base frame, struts hinged at one end thereof to a side of the base frame opposite to the hinge side of said base frame, said struts having free ends engageable with a free side of the base frame for supporting said bearing frame in a wheel engaging position; the said frames and struts of the respective chocks being of tubular material, a flexible element connecting said chocks, and said flexible element being provided at each end thereof with a split bushing having a snug fit within one end of a tubular side of the base frame of a chock.

JOHN W. CLARK.