

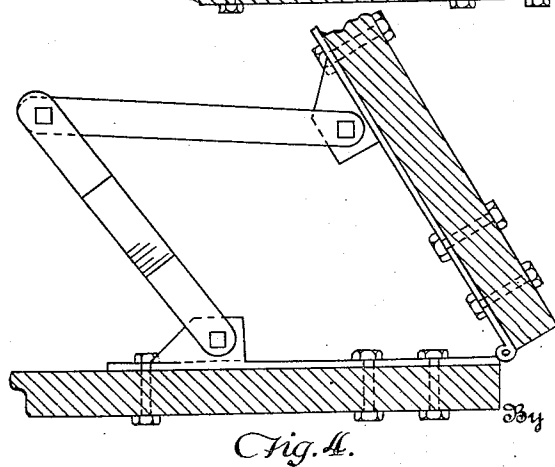
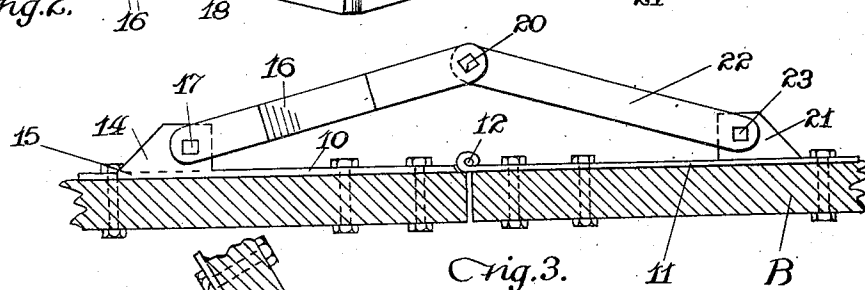
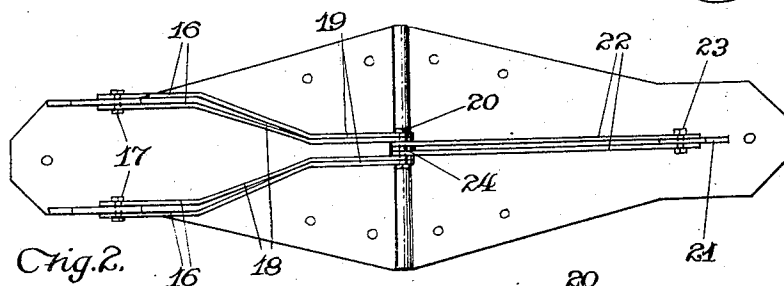
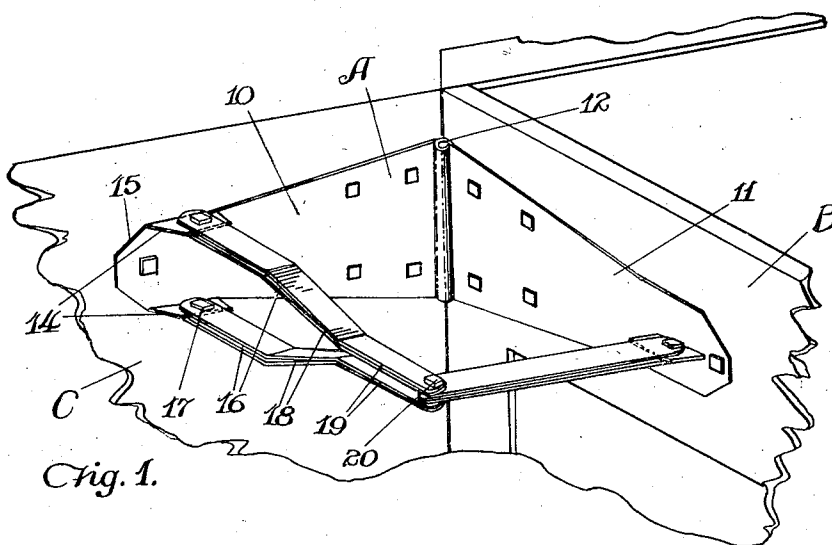
Nov. 11, 1930.

W. C. MANGEL

1,781,185

CHECK HING E

Filed Oct. 24, 1927



Inventor

Wallie C. Mangel

Honora Piche

Attorney

UNITED STATES PATENT OFFICE

WALLIE C. MANGEL, OF FAIRFAX, MINNESOTA

CHECK HINGE

Application filed October 24, 1927. Serial No. 228,295.

My invention relates to a check hinge adapted to provide a means for checking the free movement of a window, door, or other article to which my check hinge is attached.

5 A feature of the invention resides in providing means adapted to provide a strong hinge which may be used for heavy doors, such as barn doors and building doors which are apt to be left open or partly open, and
10 to prevent the wind from tearing them off in a storm, and to hold the door in a set position under ordinary conditions. In this manner my check hinge provides a very desirable means for hinging garage doors, barn doors,
15 and other heavy doors.

My checking hinge is equally adapted to lighter doors and windows to hold them against free swinging and to protect the same.

20 A feature of the invention resides in providing a hinge with a reinforcing means or bridge which extends from one end to the other and is adapted to combine in forming a hinge and check of a very desirable
25 nature. In my invention I provide hinge plates with a pintle connecting the same together, each plate being provided with projecting lugs adapted to connect the reinforcing check arms which provide a strengthening
30 means for the free ends of the hinge plates and a check which prevents free movement of the hinge plates on the pintle.

The simple inexpensive construction in this combination of the elements permit my
35 check hinge to provide a dual function of a desirable nature wherein the farmer may secure a hinge adaptable particularly to the nature set forth virtually as economically as the ordinary hinge, yet having a much more
40 desirable feature.

These features and objects together with other details and particular adaptation of my check hinge will be hereinafter more fully set forth.

45 In the drawings forming part of this specification:

Figure 1 illustrates a perspective detail of the use of my hinge in connection with a door.

50 Figure 2 is a plan view of the hinge.

Figure 3 is a side view of the hinge attached to a door and frame.

Figure 4 illustrates my check hinge in operation with the door to which it is attached held open.

In the drawings my check hinge A is
55 formed with hinge plates 10 and 11 which are connected together by the pintle 12 so that the hinge plates 10 and 11 may operate to provide a supporting hinge for doors and
60 windows and other articles that are adapted to be connected together so that they can move into open or closed position.

The check hinge A may be of a heavy nature where it is desired for heavy duty so
65 that the plates 10 and 11 may be made of heavy steel or other material to provide a strong hinge for connecting hinging members together.

My check hinge A is shown in Figure 1
70 attached to the door B, only a portion of which is shown, and to the frame C. In this figure the check hinge A is shown in partially open position. I provide a pair of projecting ears 14 on the free end 15 of the plate
75 10 which are adapted to extend virtually at right angles to the body or plate 10. These ears are adapted to support on either side thereof the check arms 16. The check arms
80 engage against the ears 14 frictionally and are held by the rivets or bolts 17 frictionally engaging the ears. The inner end of the check arms 16 are bent angularly at 18 and converge into the virtually straight portions 19. These ends 19 are adapted to be
85 connected by means of the central or hinging bolt 20.

The plate 11 is provided with a single ear member 21 which is adapted to support the
90 check arms 22 on either side thereof which are held by the bolt 23 in a manner to frictionally engage against the ear 21. The inner end of these check arms 22 is adapted to extend between the ends of the portions 19 and is connected thereto by means of the
95 bolt 20. The arms 22 are virtually equally spaced apart by the thickness of the ear 21 and a washer 24 through which the bolt 20 passes.

It is evident that as many arms 16 as may 100

be desired may be used just as is true of the arms 22. However, it is desirable that the arms 16 and 22 engage with the ear members 14 and 21 frictionally and that these arms be frictionally connected together centrally at the hinging point 20 so that the washer 24 may be a spring washer or other suitable means to constantly maintain frictional contact between the members such as 16 and 22 which provide with the ear members 14 and 21 the check means for the hinge plates 10 and 11, and thus by means of this combination I provide a check hinge having a dual function which is adapted to support a door B, window or other article which is adapted to be hinged to a frame in a suitable and practical manner the check members not only providing a means for holding the hinge against free swinging action but reinforcing and strengthening the same by providing a bridge between the free ends of the hinge plates 10 and 11 and thus particularly for heavy duty my check hinge is very desirable.

I have found my check hinge to be most practical for general use about a farm where the doors require a simple inexpensive check in combination with a hinge which may be easily attached by the farmer and which will prevent even in a strong wind the door or article hinged by my check hinge from being snapped off. I have found that in use of my check hinge doors may be moved in a strong wind but moved with such a degree of retard as to prevent them from being snapped or jerked off or loosened out of place. It is therefore apparent that with my check hinge a very desirable hinging means is provided which is equally adaptable to garage doors where it will hold the door as a hinge and check so that the door can be set in open or closed position without danger of it swinging in the wind and thus saving accidents in opening doors and having them blow into the line of travel of the automobile as it comes out of the garage or going into the same. The simplicity adds to the meritorious nature of my invention in providing a new and more desirable means of hinging and checking articles by a single means easily and readily attachable.

These objects set forth in accordance with the patent statutes the general features and particular nature of my invention and while I have illustrated a formation which is now apparent to be the best development thereof yet I desire to have it understood that the same may be varied and applied to other uses within the scope of the following claim without departing from the spirit of my invention.

I claim:

A check hinge including plate members hingedly connected together, one of said plate members having a pair of ears projecting from the free end thereof, the other of said

plate members having a single ear projecting therefrom, pairs of parallelly extending brace retarding arms pivotally and frictionally connected to said pair of ears on one of said hinge plates a pair of brace retarding arms frictionally and pivotally connected to said ear on the other of said hinge plates, all of said retarding arms being pivotally and frictionally connected together centrally with said hinge plates to provide a reinforced hinge with said brace retarding arms.

WALLIE C. MANGEL.

80

85

90

95

100

105

110

115

120

125

130