M. C. BUCKWALTER & L. GARMAN.

SHUTTER HINGE.

APPLICATION FILED APR. 27, 1917.

**1,294,044.** Patented Feb. 11, 1919.

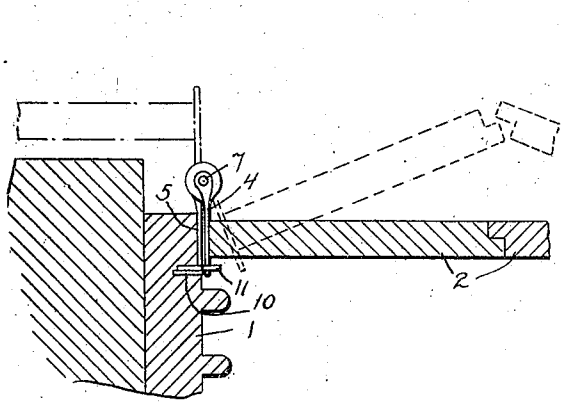



Fig. 2.

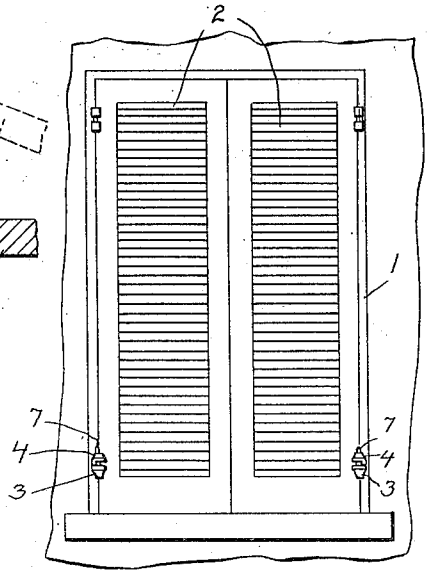



Fig. 1.

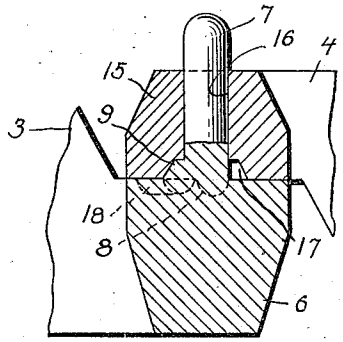



Fig. 5.

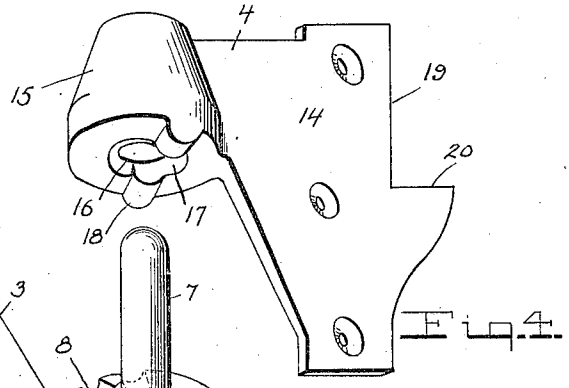



Fig. 4.

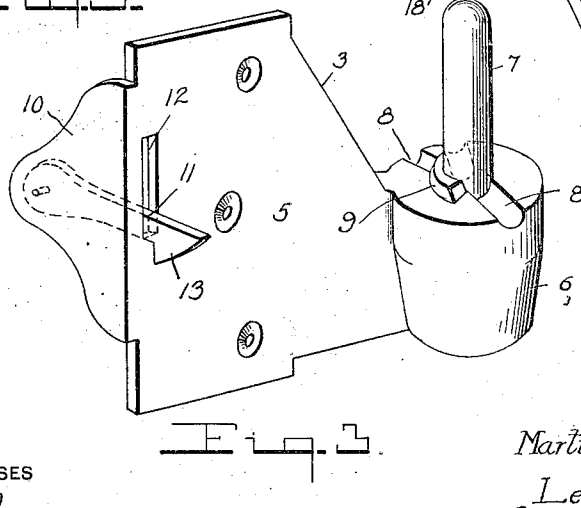



Fig. 3.

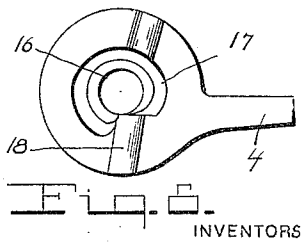



Fig. 6.

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# UNITED STATES PATENT OFFICE.

MARTIN C. BUCKWALTER AND LEWIS GARMAN, OF NEW HOLLAND, PENNSYLVANIA.

## SHUTTER-HINGE.

1,294,044. Specification of Letters Patent. **Patented Feb. 11, 1919.**

Application filed April 27, 1917. Serial No. 165,022.

*To all whom it may concern:*

Be it known that we, MARTIN C. BUCKWALTER and LEWIS GARMAN, citizens of the United States, residing at New Holland, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Shutter-Hinges, of which the following is a specification.

This invention relates to shutter hinges and is designed primarily to serve in the dual capacity of a hinge and lock for the shutters.

Another object is to equip the hinges with means whereby the shutters will be positively locked when in a closed position, the hinges being further equipped with coacting means by which the shutters may be held in a fixed position when in an open or partially open position.

The above and other objects and advantages of this invention will be in part described and in part understood from the following description of the present preferred embodiment, the same being illustrated in the accompanying drawings, in which:

Figure 1 is a front elevational view of hinges constructed in accordance with our invention illustrating the application of the same on a window frame and shutter.

Fig. 2 is a detail fragmentary sectional view of a window frame and shutter, illustrating the application of our invention, the latter being shown in top plan.

Fig. 3 is a perspective view of one part of a hinge constructed in accordance with our invention.

Fig. 4 is a similar view of the other part of the hinge.

Fig. 5 is a detail enlarged fragmentary view of our invention, showing the specific manner in which the hinges are connected, and

Fig. 6 is a detail fragmentary bottom plan view of the part of the hinge which is shown in Fig. 4 of the drawings.

In the drawings, in order to illustrate the application of our invention, a portion of a window casing 1 is shown, which has mounted therein shutters 2 of the usual or any desired configuration.

Our improved hinge in this instance comprises two parts generally designated 3 and 4. The part 3 consists of a leaf 5, one of the margins of which is enlarged to provide a cesses radiating from the pintle, correspondtherefrom. The upper end of the knuckle 6 is provided with a plurality of recesses 8 which are preferably semi-circular in cross section. An arcuate lug 9 is formed on the upper end of said knuckle 6 and embraces the inner end of the pintle 7. A right-angled extension 10 is formed on the lateral marginal edge of the leaf 5 and has pivotally mounted thereon a trip member 11, the free end of the latter extending through an opening 12 in the leaf 5, as shown to advantage in Fig. 3. The extreme free end of the trip 11 is formed to provide a beveled nose 13 for a purpose hereinafter set forth.

The other part of our improved hinge consists of a leaf 14 which has a knuckle 15 formed on one of its margins. The knuckle 15 is provided with a bore 16 which is adapted to receive the pintle 7. An annular recess 17 is formed in the lower end of said knuckle 15 and communicates with the bore 16. This recess is adapted to receive the arcuate lug 9. Rounded projections 18 are formed on the lower end of the knuckle 15 and are adapted for engagement in the recesses 8, in order to hold the shutters from movement when desired. The purpose of the lug 9 is to serve as a runway over which the projections 18 will ride, thereby facilitating disengagement of the projections from said recesses and permitting free relative movement of the two-parts comprising the hinge. A portion of the opposite margin of the leaf 14, to that upon which the knuckle 15 is formed, is removed as indicated at 19 in order to provide a shoulder 20.

In use it will be apparent that the part 3 of the hinge will be engaged with the lower part of the window casing 1 substantially as shown in Figs. 1 and 2 of the drawings. The part 4 will be engaged with the shutters 2. Assuming that the shutters are in a closed position, as shown in Figs. 1 and 2 of the drawings, it will be obvious that in this position the trip member 11 has the free end thereof engaged with the shoulder 20 of the part 4 of the hinge so as to positively lock said shutters from movement. Now when it is desired to open the shutters, the trip member 11 is moved upwardly in the opening 12, thereby releasing said trip member from the part 4 of the hinge and permitting the shutters to be opened. The shutters may, if desired, be held in a partially open position, as shown by the dotted lines in Fig. 2, in which position, the projections 18 are engaged with a pair of the recesses 8. By exerting pres-

sure outwardly on the shutters, the projections 18 will ride over the lugs 9 until the next corresponding pair of recesses 8 have been reached, and will then lodge therein with an obvious result. It will be apparent that as soon as the shutters are again pulled into a closed position that the trip member 11 will automatically engage over the shoulders 20 in view of the beveled nose portion 13 of said trip member 11, so as to relock the shutters. Upon reference to Fig. 6 of the drawings, it will be seen that one of the lugs 18 project appreciably inwardly into the recess 17, this being done in order to facilitate disengagement of the lugs 9 from said recess 17.

It will be understood that the above description and accompanying drawings comprehend only the general and preferred embodiment of our invention and that various minor changes in details of construction, proportion and arrangement of parts may be made within the scope of the appended claims without sacrificing any of the advantages of our invention.

We claim:—

1. A hinge structure composed of two leaf members, one of which is attached to a stationary part and the other to a swinging member, knuckles on each of said members, a pintle mounted on one of said leaf member knuckles, an aperture in the other of said knuckles through which the pintle is passed, a lug partially surrounding the pintle, recesses radiating from the pintle, corresponding lugs on the complementary knuckle on the other leaf member, said lugs fitting into the radiating recesses to lock the leaf members into a predetermined position, said lugs coöperating with the first mentioned lug to elevate one of the leaf members and disengage the last mentioned lugs from the corresponding recesses.

2. A hinge structure composed of two leaf members, one of which is attached to a stationary part and the other to a swinging member, knuckles on each of said members, a pintle mounted on one of said leaf member knuckles, an aperture in the other of said knuckles through which the pintle is passed, a lug partially surrounding the pintle, recesses radiating from the pintle and having corresponding lugs on the complementary knuckle on the other leaf member, said lugs fitting into the radiating recesses to lock the leaf members into a predetermined position, said lugs coöperating with the first mentioned lug to elevate one of the leaf members and disengage the last mentioned lugs from the corresponding recesses, and a latch member pivotally secured to one of said leaf members and engaging the other of said leaf members to lock the swinging members when in closed position.

In testimony whereof we affix our signatures in presence of two witnesses.

MARTIN C. BUCKWALTER.
LEWIS GARMAN.

Witnesses:
AMOS DILLER,
DAVIS WARFEL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."