No. 896,177. PATENTED AUG. 18, 1908.

W. TURNER.

LOCK.

APPLICATION FILED JUNE 14, 1906.

Fig. 1.

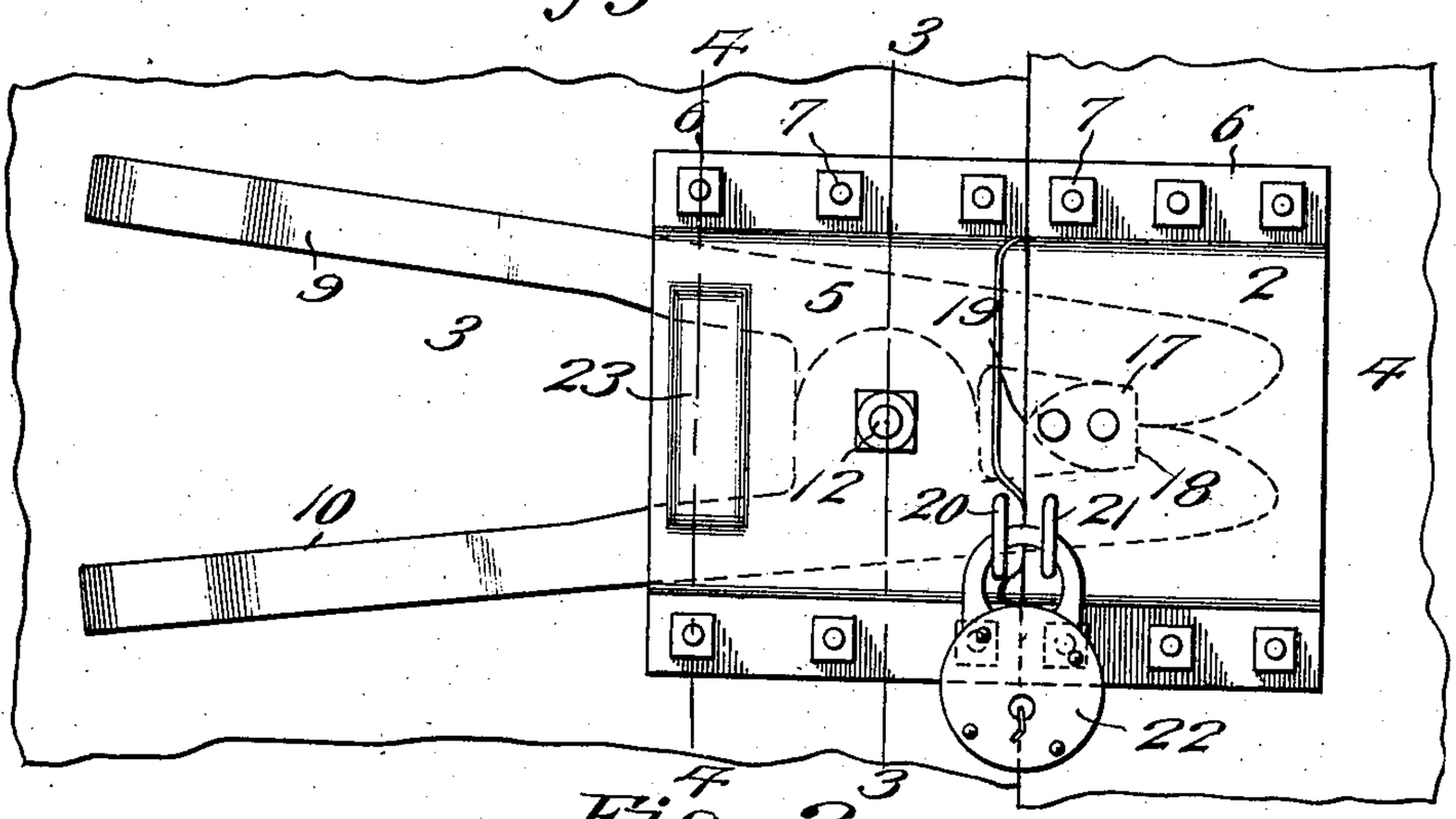


Fig. 2.

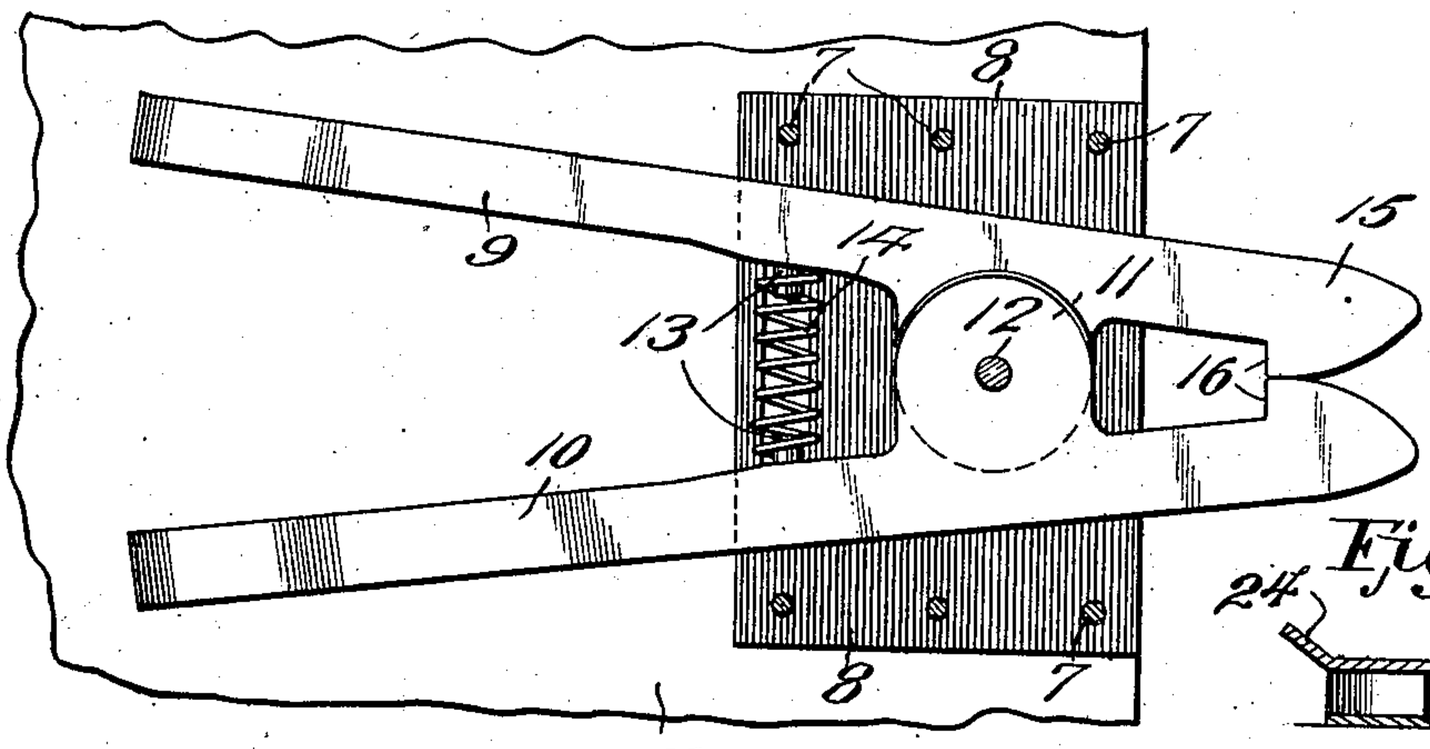
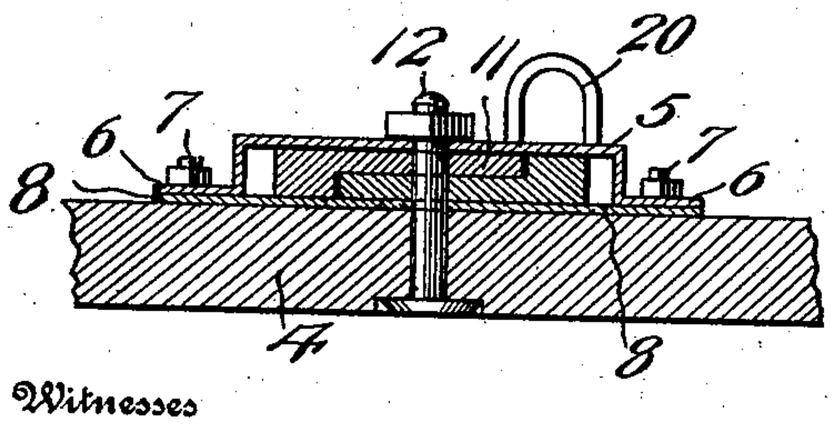
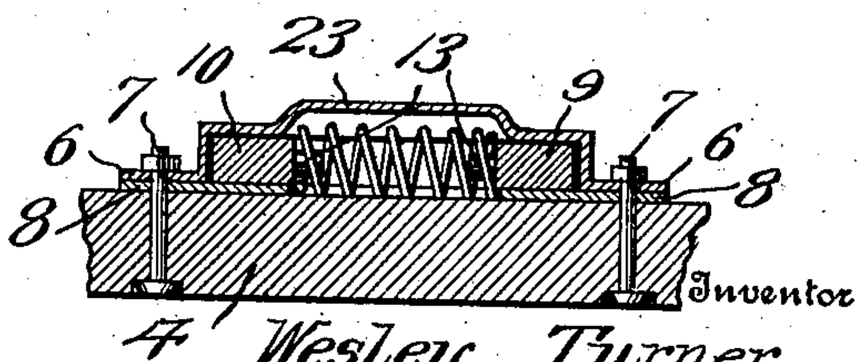


Fig. 3.

Fig. 5.

Fig. 4.





Witnesses

Frank B. Hoffman.

D. W. Gould.

Inventor

Wesley Turner

By Victor J. Evans.

Attorney

UNITED STATES PATENT OFFICE.

WESLEY TURNER, OF SANTA FE, OHIO.

LOCK.

No. 896,177. Specification of Letters Patent. Patented Aug. 18, 1908.

Application filed June 14, 1906. Serial No. 321,755.

To all whom it may concern:

Be it known that I, WESLEY TURNER, a citizen of the United States, residing at Santa Fe, in the county of Auglaize and State of Ohio, have invented new and useful Improvements in Locks, of which the following is a specification.

This invention relates to an improvement in locks primarily designed for use in connection with car doors or similar structures comprising specifically a means whereby the door is automatically locked in the closing operation.

The main object of the present invention is the production of a lock embodying a latch member comprising pivotally connected levers, arranged for automatic engagement with a keeper in the closing operation of the door, the particular construction of the keeper and coöperating portion of the latch levers providing against accidental disengagement of the levers through jarring or other vibration incident to the travel of the car.

The preferred details of construction of the present invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which:

Figure 1 is a broken plan view illustrating my improved lock, the parts being shown in operative or locking position. Fig. 2 is a plan of the latch member. Fig. 3 is a section on line 3—3 of Fig. 1. Fig. 4 is a section on line 4—4 of Fig. 1. Fig. 5 is a broken longitudinal section of the keeper.

Referring particularly to the drawings my improved lock comprises a latch member 1 and a keeper 2, designed respectively for connection with a car door, as 3, and the car, as 4, adjacent the door. The latch member comprises a housing 5, preferably a metallic strip bent into U form to provide side flanges 6 whereby the housing may be secured to the door.

By preference the housing is secured adjacent the forward edge of the door through the medium of bolts or other connections 7, a suitable bed or bearing plate 8 being used to underlie the housing if desired.

The latch member of the lock comprises duplicate levers 9 and 10, each formed near their forward or operative ends with laterally disposed disks 11, arranged in offset planes relative to the connected lever to provide for superimposed coöperation of said disks without increasing the thickness at its point. The levers are pivotally supported through the medium of a pin 12 preferably headed at one end to seat in a recess on the inner side of the car door and passing wholly therefrom and centrally through the disks 11. In rear of the pivotal connection the proximate edges of the levers are formed with studs 13, arranged in alinement transverse the housing to receive the end coils of a spring 14, tensioned to normally maintain the rear or handle ends of the levers in fully separated position. The levers are of a length to project beyond the forward edge of the housing 5, their nose ends 15 projecting inwardly beyond the edge of the lever to provide a square shoulder 16, the edges of said nose ends being rounded from the free edge of the shoulder toward the terminal of the lever.

The keeper 2 is preferably in the form of the housing and practically identical with the latch housing, being secured to the car siding in longitudinal alinement with the housing 5. Centrally of the housing and disposed immediately adjacent the forward edge thereof is arranged the keeper block 17, secured in place by any suitable fastening and having a rear shoulder or surface 18 disposed at right angles to the longitudinal plane of the housing, the walls of the block from the opposed edges of the rear side curving forwardly and toward each other and terminating in a point or edge 19. Staples 20 and 21 are secured immediately adjacent the proximate edges of the keeper and latch housing, being designed to receive a padlock 22 when said housings are in operative relation to provide for locking the door in closed position.

In use the closing operation of the door will cause the rounded edges of the lever nose to ride upon the curved side of the keeper block, with the effect to spread the forward ends of said levers against the tension of the spring 14. The continued closing movement of the door causes the shoulders 16 of the levers to ride in rear of and into engagement with the plane surface 18 of the keeper block. Owing to the exact relative arrangement of the surface of the shoulders 16 and the side 18 of the block, said shoulders engage the block throughout their length, thereby providing a positive locking which will not be accidentally disengaged by any jarring or vibration to which the car may be subjected. Pressure exerted upon the handle ends of the

levers to cause them to approach each other will, as is obvious, spread the forward or nose end of the levers to disengage their shoulders from the keeper block and opening movement of the door. If preferred, the housing 5 may be appropriately offset, as at 23 to receive the spring 14, thereby permitting the use of a spring of increased size without increasing the size of the housing therefor. The keeper 2 may be and preferably is formed on the forward edge with an inclined lip 24, which inclines forwardly and upwardly from the keeper. The lip serves to guide the ends of the levers 9 and 10 into the housing, should said lever for any reason be displaced from alined position with the keeper. Adjacent the staple 21 the lip 24 is cut away to provide for the passage of a seal or lock ring, and beyond said cut away portion the lip is of normal size.

The lock described is automatic in its operation, requiring no manual manipulation other than the mere closing operation of the door, while it is released or the disengagement is readily effected by pressure exerted upon the handle ends of the levers.

I claim:—

A latch of the class described comprising a base plate, a cover plate separable therefrom, said plates respectively provided with a transversely disposed slot and a transverse guide offset registering with such slot, a pair of levers pivotally mounted between such plates and a coiled extensile spring with its ends bearing between said levers, said spring disposed between said plates and operating in said slot and said guide offset.

In testimony whereof, I affix my signature in presence of two witnesses.

WESLEY TURNER.

Witnesses:
EDWARD L. GROSS,
JAMES BARBER.