

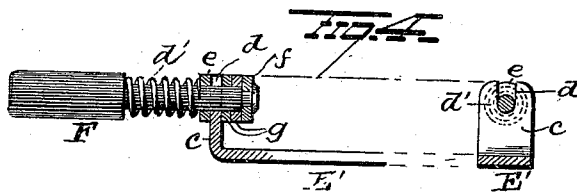
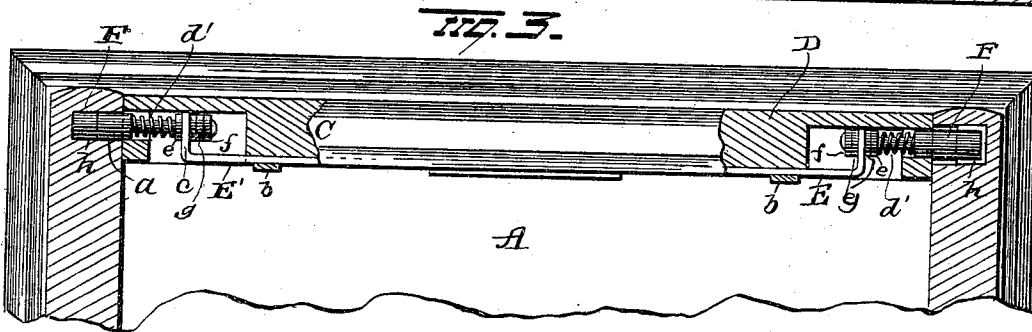
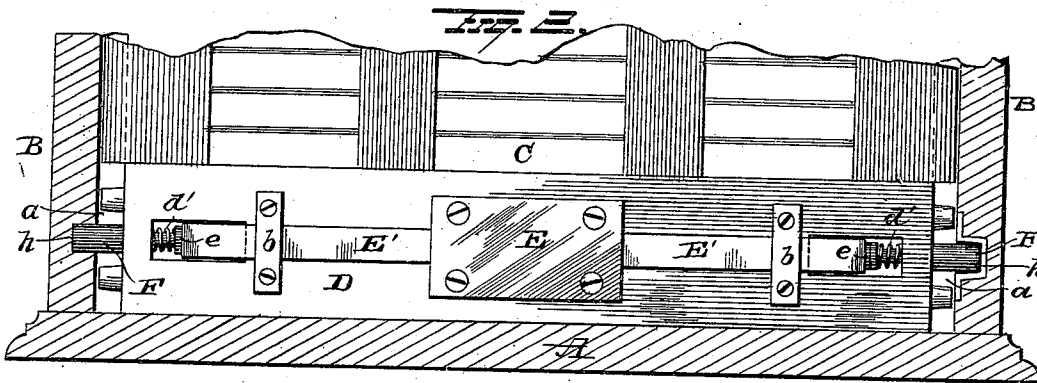
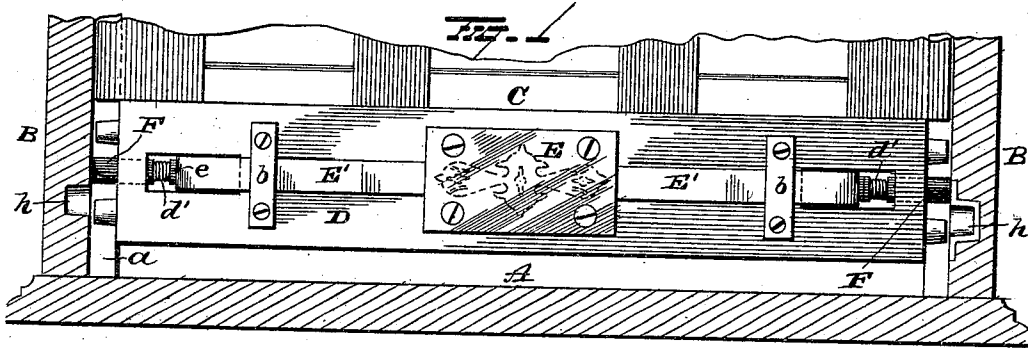
No. 684,080.

Patented Oct. 8, 1901.

F. W. MIX.  
LOCK.

(Application filed June 18, 1901.)

(No Model.)



WITNESSES  
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# UNITED STATES PATENT OFFICE.

FRANK W. MIX, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE YALE & TOWNE MANUFACTURING COMPANY, OF SAME PLACE.

## LOCK.

SPECIFICATION forming part of Letters Patent No. 684,080, dated October 8, 1901.

Application filed June 18, 1901. Serial No. 65,056. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK W. MIX, of Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Locks for Sliding Closures; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in locks for sliding closures, and is designed more particularly as an improvement on the structure disclosed in Patent No. 563,671, granted me July 7, 1896. In the patented structure the two sliding bolts carried by the sliding or rolling lid or shutter normally rest in their locked positions and engage spring-actuated keepers, the latter resting in the path of the bolts and yielding to permit the bolts to pass, after which they resume their normal positions and prevent the sliding closure from being opened until the bolts shall have been retracted sufficiently to clear the keepers.

In this class of devices it is desirable to have the locking effected automatically by the simple act of closing the shutter or lid; and the object of my present invention is to simplify the construction by dispensing with spring-actuated or movable keepers and providing the bolts with yielding sections, which automatically enter bolt sockets or keepers in the frame of the device when the sliding lid or shutter reaches its closed position.

A further object is to provide means whereby the spring-actuated bolts may be readily and quickly lengthened or shortened to compensate for wear or shrinkage of parts or to variations in sizes of desks or other structures to which the lock is applied.

With these ends in view my invention consists in the parts and combinations of parts, as will be more fully explained, and pointed out in the claims.

In the accompanying drawings, Figures 1 and 2 are views in section of a desk and rear elevation of the sliding cover, the former view showing the parts just before the locking is effected and the latter showing the locked position. Fig. 3 is a view in hori-

zontal section taken above the bolts, and Fig. 4 is an enlarged view of a portion of one of the bolts, showing the spring-actuated section and the manner of adjustably securing it to the main body of the bolt.

A represents the desk-table, B the sides or cheeks, and C the sliding or rolling top or lid constructed in any suitable manner, the lower rail D of the sliding or rolling top being provided at each end with two dowel-pins, which rest and move in the grooves *a* in the sides or cheeks of the desk. This lower rail D carries the lock-case E, which is arranged for the reception of a key from the outside, as indicated in dotted lines. This lock-case is located centrally on the rail D, and the mechanism therein is connected to the two laterally-projecting bolts E, supported in suitable bearings *b* against the inner face of the rail D. These bolts E are normally projected, as explained in my patent referred to, and each is provided with a bent end *c*, slotted, as shown at *d*, to receive its spring-actuated main bolt F. The rear face of the rail is mortised or cut away near each end to receive the bent ends of the bolts E, the said mortises being sufficiently long to permit of the full throw or movement of the bolt E. The spring-bolts F, which, as before stated, are secured to the slotted and bent ends of the bolts D, pass outwardly through holes in the ends of the rail D, preferably between the dowel-pins, and normally rest with a yielding pressure against the rear wall of the grooves in the sides or cheeks. The inner ends of the spring-bolts are reduced in diameter, and these reduced portions are encircled by the spiral springs *d*, the inner ends of which bear against the sliding washer *e*. A washer *f* is rigidly secured to the extreme inner ends of the bolts, and between the rigid washer *f* and the loose washer *e* are interposed a series of loose washers *g*. With this construction the spring-bolts can be removed and readjusted to either shorten or lengthen the outwardly-projecting ends by simply interposing one or more of the loose washers behind the bent ends of the rigid or main bolts. These spring-bolts, as before stated, move in contact with the rear walls of the slots or grooves in the cheek-pieces, and the latter are

provided at the proper points with a socket or socketed keeper *h*, into which the spring-bolts enter when the top or lid reaches its closed position, thus locking the top against movement until the main bolts, which, as explained, carry the spring-bolts, have been retracted by the key.

While I have illustrated my invention in connection with a desk, I would have it understood that the improvement may be applied to any sliding closure.

It is evident that many slight changes might be resorted to in the relative arrangement of parts herein shown and described without departing from the spirit and scope of my invention. Hence I would have it understood that I do not wish to confine myself to the exact construction herein shown and described; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with sides each having a recessed or socketed keeper, of longitudinally-sliding main bolts, each of the latter being continuous and rigid from end to end, an intermediate key-actuated retracting mechanism connecting the inner ends of said main

bolts, and spring-bolts carried on the outer ends of the main bolts and adapted to enter the recesses or socketed keepers.

2. The combination with the grooved sides each having a recess or socketed keeper, of longitudinally-sliding main bolts, an intermediate key-actuated retracting mechanism for said main bolts, and spring-bolts adjustable longitudinally on the outer ends of the main bolts and adapted to enter the recesses or socketed keepers.

3. The combination with a main sliding bolt having a laterally-turned and slotted end, of a spring-bolt seated in said slotted end, and means for adjusting the spring-bolt longitudinally.

4. The combination with a main bolt having a slotted and bent end, of a spring-actuated bolt seated in said slotted end and a series of washers on said spring-bolt for adjusting the latter longitudinally.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRANK W. MIX.

Witnesses:

SCHUYLER MERRITT,  
S. C. WHITNEY.