

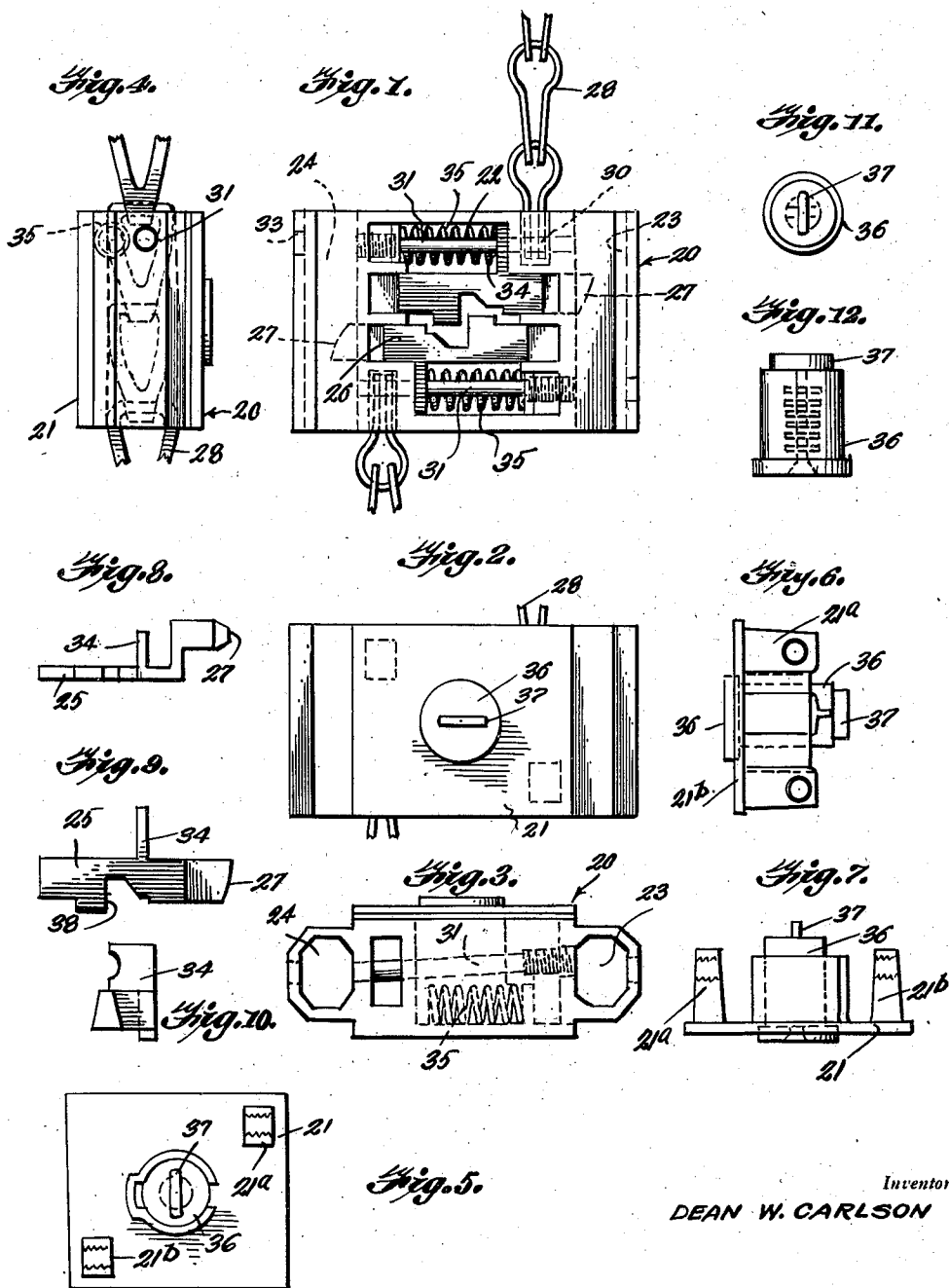
March 22, 1949.

D. W. CARLSON
UNIVERSAL PADLOCK FOR LOCKING
TOGETHER UNEQUAL OBJECTS

2,465,008

Filed April 12, 1946

2 Sheets-Sheet 1



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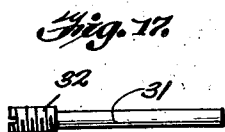
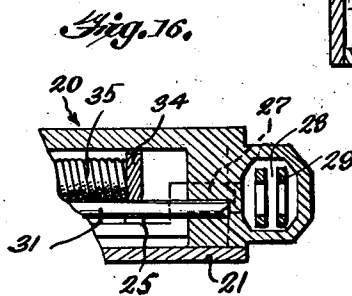
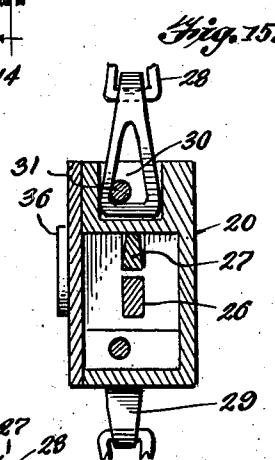
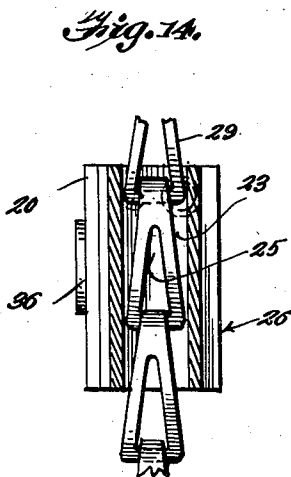
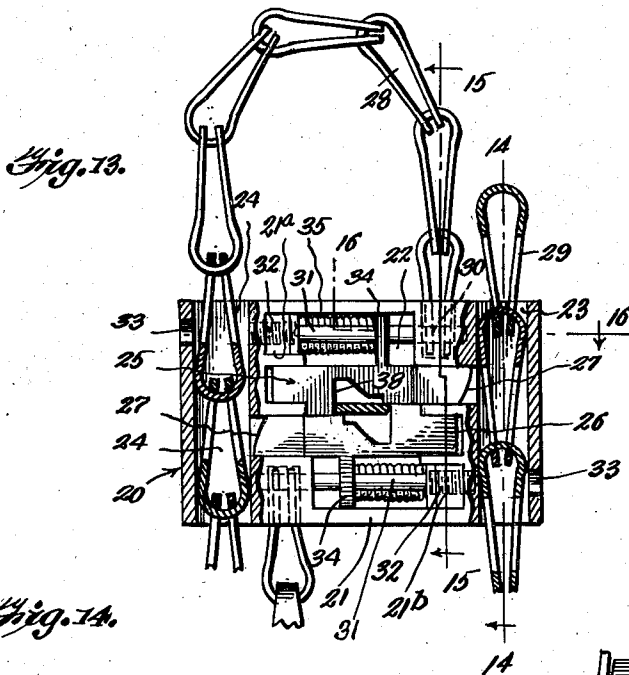
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UNITED STATES PATENT OFFICE

2,465,008

UNIVERSAL PADLOCK FOR LOCKING
TOGETHER UNEQUAL OBJECTS

Dean W. Carlson, Oakland, Calif.

Application April 12, 1946, Serial No. 661,672

3 Claims. (Cl. 70-49)

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The present invention pertains to an improved padlock intended for use to lock together objects of unequal shape, using chains for securing such objects.

One of the objects of this invention is to provide a useful lock of this character which is solid, strong, of simple construction, and which can be manufactured at small cost, and is of durable design so as not to be tampered with.

Other advantages and characteristics will be understood from the subjoined description aided by the accompanying drawings, wherein:

Figure 1 is a front elevation of the lock with the cover plate removed;

Figure 2 is a front elevation of the complete lock with the cover plate in position;

Figure 3 is a side view of Figure 2 showing the screw and spring in position;

Figure 4 is an end view of Figure 2 as seen from the right end thereof, and showing the relative position of the chain and the screw hole;

Figure 5 is a rear elevation of the cover seen from the inside;

Figure 6 is an end view of the cover plate as seen from the left of Figure 5 with the lock barrel in place;

Figure 7 is a top plan view of Figure 5;

Figures 8, 9 and 10 are side view, top plan view and end view respectively of a conventional latch bolt;

Figures 11 and 12 show inside end view and top plan view of the lock barrel, respectively;

Figure 13 is a front elevation of the lock assembled and cover plate removed, showing the location of the parts in locked position and partly in section;

Figure 14 is a vertical section along the line 14-14 of Figure 13;

Figure 15 is a similar section along the line 15-15 of Figure 13;

Figure 16 is a partial horizontal section of the lock along the line 16-16 of Figure 13; and

Figure 17 is a side view of a chain securing screw.

In the several views of the drawing the same numerals denote the same details.

Reference numeral 20 indicates the block or body of the lock, with an opening on one side, which is closed by a cover plate 21. The block 20 has a middle chamber 22 containing the moving parts of the lock, and two passages 23, 24 open at both ends for receiving and passing the locking chains.

The chamber 22 contains two latch bolts 25, 26 each with a slanting nose 27 which points away

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from the entry end of the passage 23 or 24 for the chains 28 and 29. The stationary end of each chain is anchored as at 30 by a securing screw 31, slightly off center, the head 32 of which is threaded in a lug 21a or 21b of the plate 21 extending into the chamber 22 of the block 20 which is provided with a small hole 33 for entering of the screw 31. The latter has the double function of also serving as a guide for the latch bolt 25 provided with a projecting toe 34 with a small aperture through which the straight shank of the screw 31 runs, allowing some play. Adjacent the screw 31 is housed a coiled spring 35 which is compressed behind the toe 34 and the wall of the housing block 20 thereby acting to push each of the latch bolts 25 and 26 outwards and to engage the nose 27 with a link of the chain 28 or 29.

It will thus be understood that, for instance, the upper chain 28 being anchored by screw 31 in the recess at 30, can have its free end inserted to any suitable distance in or through the passage 24 and locked therein by the nose 27 of its latch bolt 25, as shown in Figures 14 and 15, or to be withdrawn by turning of the lock barrel 36.

This barrel 36 is cylindrical, of conventional type to be operated for turning in the cover plate 21, and is provided with a forwardly projecting flat operating tongue 37 adapted for engaging a shoulder 38, facing oppositely to the lug 34 and nearer the rear end of the latch bolt 25. In the chain locking position, shown in Figure 13, when the nose 27 locks the chain, the tongue 37 stands upright (see Figs. 5 and 6) contacting with its flat surface against the shoulder 38 when the spring 35 pushes the latch bolt outwardly in engagement with the chain 28.

When the barrel 36 is turned by its key so that the tongue 37 stands horizontally, as in Figure 2, then the tongue 37 pushes the bolt 25 inwards out of engagement with the chain, by the edge of the tongue acting against the shoulder 38 against the action of spring 35, and the lock is then open.

The securing screw 31 has still another function, namely to secure the cover plate 21 in position; the screw having a threaded head 32 engaging in a lug 21-a or 21-b respectively thereby holding the plate fast in position.

It will be evident, that instead of having a lock with two chains as described, only one of the chains may serve to lock two or more objects together. The chains have preferably flat links.

It is to be understood that the invention as herein described and shown is not limited to the

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details herein given, but may be modified within the scope of the subjoined claims.

I claim:

1. A universal lock of the class described, comprising a block having a central chamber opening outwardly on one side, a face plate entirely covering the opening, a passage across the body from top to bottom thereof, a chain, means for anchoring one end thereof near the top surface of said body, the free end of the chain adapted for passing freely through said passage from top to bottom, a latch bolt slidable in said chamber and extending into said passage to lock the chain, a spring urging said bolt into locking position, and a cylindrical barrel mounted to turn in said cover plate and having a flat tongue protruding into said chamber and engaging a lug on said latch bolt to retain the bolt against the spring action, when in one position and, when turned into another position, adapted to release the bolt into locking position, said anchoring means also serving to guide said lock bolt in its sliding action and to secure said face plate to cover said opening on said block.

2. A universal lock of the class described, comprising a block having a central chamber opening outwardly on one side, a face plate entirely covering the opening, a passage across the body from top to bottom thereof, a chain, means for anchoring one end thereof near the top surface of said body, the free end of the chain adapted for passing freely through said passage from top to bottom, a latch bolt slidable in said chamber and extending into said passage to lock the chain, a spring urging said bolt into locking position, and a cylindrical barrel mounted to turn in said cover plate and having a flat tongue protruding into said chamber and engaging a lug on said latch bolt to retain the bolt against the spring action, when in one position and, when turned into another position, adapted to release the bolt into locking position, said anchoring means also serving to guide said lock bolt in its

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sliding action and to secure said face plate to cover said opening on said block, said anchoring means consisting of a screw having a head threaded in said cover plate and engaging with its point in said body and having its shank positioned alongside of said spring and engaging said bolt for sliding.

3. A lock of the character described comprising a block having passages extending there-through from end to end thereof, two chains each anchored at one of its ends to an end of the block, the free end of each chain being freely passable through one of said passages, lock bolts mounted in said block transversely thereof, spring means for normally urging said lock bolts in opposite directions and toward projected positions and with corresponding ends thereof extending into said passages for releasably engaging links of the chain portions extending there-through, said lock bolts comprising corresponding portions, adapted to receive a key therebetween, cooperating for the simultaneous retraction of said bolts out of said passages when said key is rotated in one direction, said lock being provided with a recess in which said key is rotatably mounted, a cover for the block, and means for detachably securing the cover on the block, said means additionally functioning for anchoring the first mentioned ends of the chains and for guiding said lock bolts in their movements toward retracted or projected positions.

DEAN W. CARLSON.

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35 The following references are of record in the file of this patent:

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