Jan. 8, 1929.

1,698,201

J. PIETRIE

PADLOCK

Filed May 16, 1927

FIG. 1

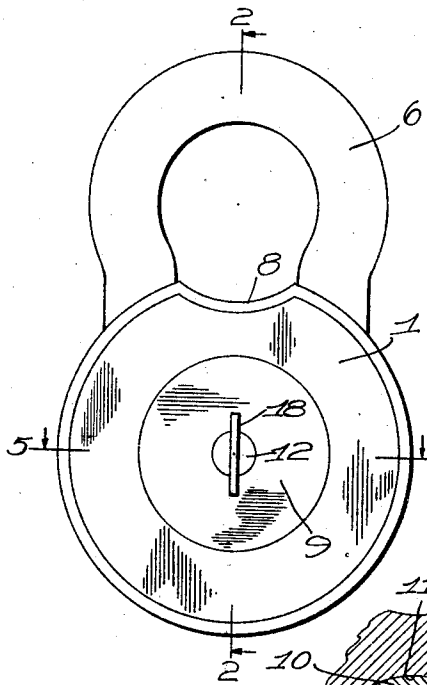
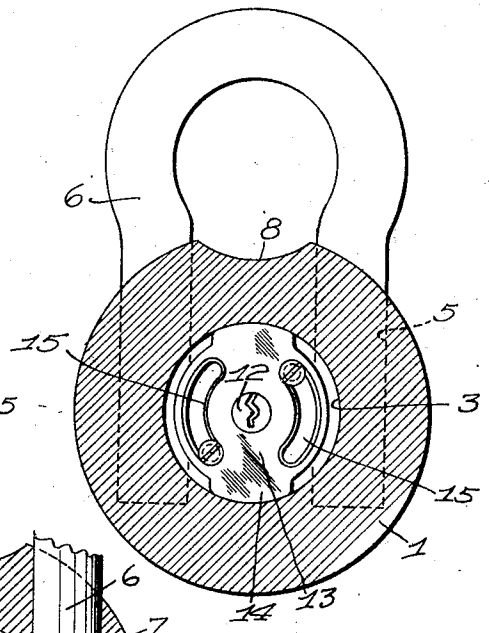


FIG. 3.



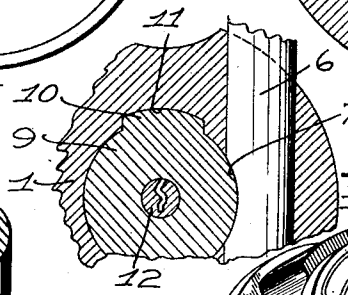
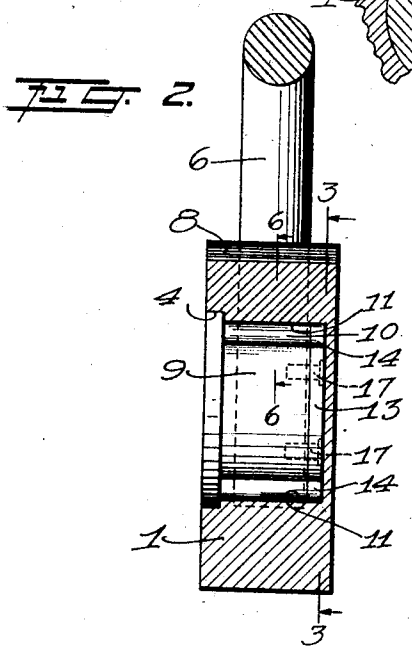


FIG. 6.

FIG. 2.



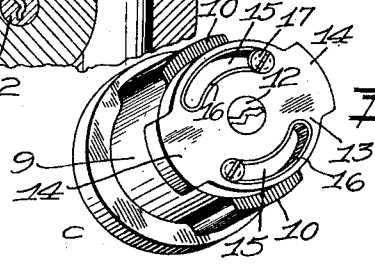


FIG. 4.

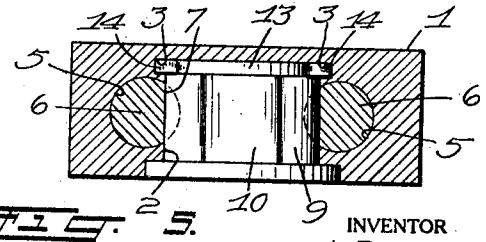


FIG. 5.

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UNITED STATES PATENT OFFICE.

JOSEPH PIETRIE, OF CHICAGO, ILLINOIS.

PADLOCK.

Application filed May 16, 1927. Serial No. 191,838.

My invention relates to improvements in padlocks, and it consists in the combinations, constructions, and arrangements herein described and claimed.

An object of my invention is to provide a padlock of the type in which the shackle of the padlock is arranged to be entirely removed from the cooperating body portion of the lock, and in which means is provided for positively locking the shackle against movement without first removing a locking core from the body.

A further object is to provide a padlock in which relatively simple means is employed for locking the locking core in position.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claim.

My invention is illustrated in the accompanying drawings, forming part of this application, in which

Figure 1 is a front elevation of an embodiment of my invention,

Figure 2 is a sectional view taken along the line 2—2 of Figure 1,

Figure 3 is a sectional view taken along the line 3—3 of Figure 2,

Figure 4 is a perspective detail view of the locking core,

Figure 5 is a sectional view taken along the line 5—5 of Figure 1, and

Figure 6 is a sectional view taken along the line 6—6 of Figure 1.

In carrying out my invention, I provide a steel body portion 1 having a central bore 2 and extending transversely through the greater portion of the body member. The bore 2 is provided with an annular recess 3 at its innermost end and is also provided with an annular recess 4 at its foremost end.

The body portion 1 is provided with a pair of bores 5 for the purpose of receiving two ends of a shackle 6. The innermost ends of the shackle 6 have arcuate recesses 7. It will be observed that when the shackle 6 is disposed in place these arcuate recesses 7 have their surfaces contiguous with the central bore 2.

The top of the body portion 1 is provided with an arcuate recess 8, the purpose of which is to give more space between the inner walls of the shackle and the body portion.

A locking core 9 is provided for entering the central bore 2. Referring to Figure 4, it will be observed that this locking core is provided with projections 10 which enter grooves 11 in the body portion 1. Thus it will be seen that when the core is placed within the central bore 2, it will be locked against rotation by virtue of the engagement of the projections 10 with the grooves 11. A key mechanism 12 is rotatably mounted within the locking core 9. This key mechanism extends through the entire length of the locking core and is arranged to carry a rotatable locking member 13. This member is provided with a pair of projections 14 corresponding to the projections 10 carried by the locking core. The locking member is provided with a pair of slots 15 having a groove 16 cut around the slots in the locking member, as shown in Figure 4. Screws 17 are arranged to freely enter the slots 15 and are firmly secured to the locking core 9. Thus it will be seen that the locking member 13 is free to be rotated one quarter turn.

Since the locking member 13 is rigidly secured to the key mechanism 12, it will be understood that the locking member can be moved only when a key 18 has been inserted into the key mechanism 12.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. In operation, the shackle 6 is placed in the bores 5. The locking core 9 is next inserted into the central bore 2. Of course it is understood that when the locking core 9 is inserted in the central bore, the locking member 13 has been turned so that the projections 14 are in longitudinal alignment with the projections 10 carried by the locking core 9. When the core 9 has been inserted, it will be observed that it bears against the arcuate recesses 7 formed in the shackle 6.

When the locking core 9 has been inserted in place, the key 18 which has been inserted in the key mechanism 12 is given a quarter turn. This will result in a quarter turn of the locking member 13. Since the projections 14 are arranged to enter the annular recess 3, it will be observed that the locking core 9 is firmly secured in place when once the key has been given a quarter turn.

Since the locking core 9 fits snugly within the central bore 2 and the annular recess 4, it will be observed that when the key is removed, the entire lock presents a smooth surface free of all projections, and of such rigid construction that it is very difficult to force the lock in any manner.

I claim:

A padlock comprising a body portion having a pair of parallel bores, said body portion having a transverse bore intersecting said parallel bores and a recess at the end of said transverse bore and in the rear of said parallel bores, said body portion being provided with grooves intersecting said transverse bore, a U-shaped shackle having portions arranged to enter the parallel bores, said portions being cut away to conform to the contour of the side walls of said transverse bore, a locking core arranged to enter said transverse bore for locking said U-shaped shackle against removal, said core having projections arranged to enter the grooves in said body portion, a key mechanism rotatably disposed within said locking core, and a locking member fixed to said rotatable key mechanism and having projections arranged to enter the recess for locking the core in position.

JOSEPH PIETRIE.