J. BENSON.

KEY CABINET.

APPLICATION FILED AUG. 26, 1920.

1,389,181.

Patented Aug. 30, 1921.

2 SHEETS—SHEET 1.

Fig. 1

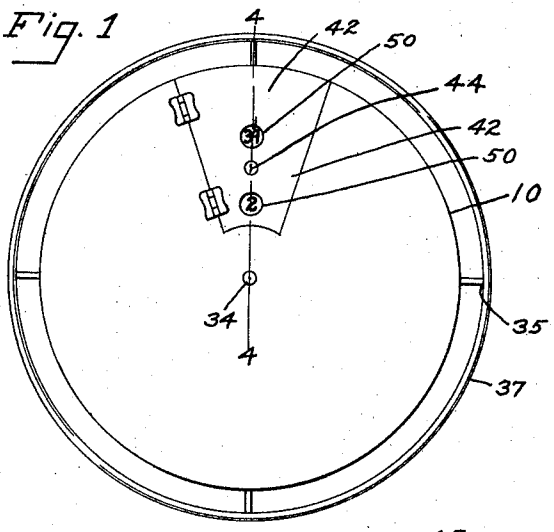


Fig. 2

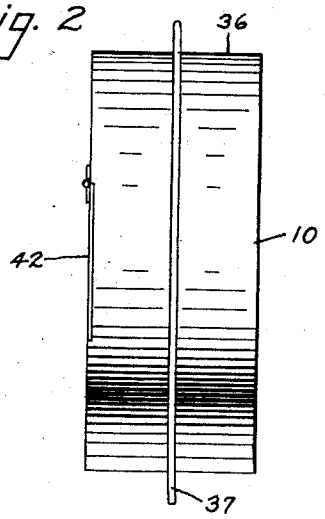


Fig. 3

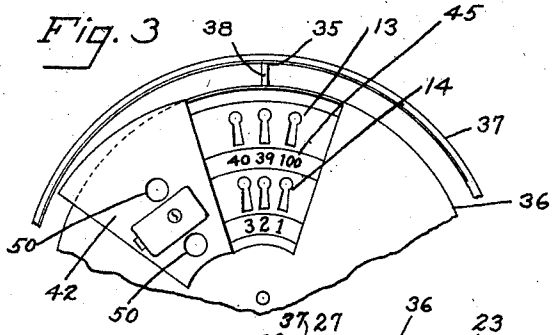


Fig. 5

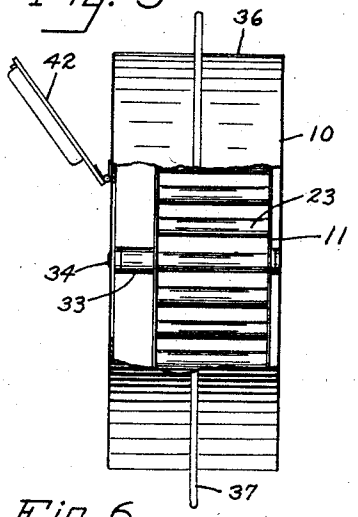


Fig. 4

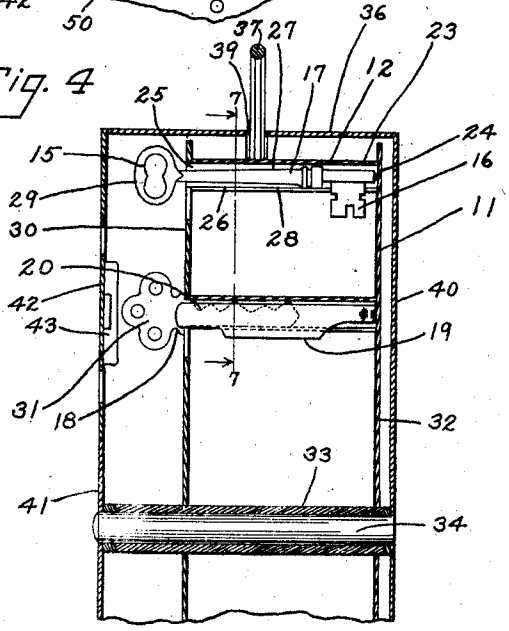
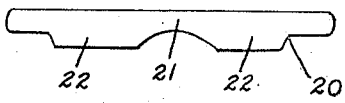


Fig. 6



Inventor

Jacob Benson

By Louis M. Schmidt

Atty.

J. BENSON.

KEY CABINET.

APPLICATION FILED AUG. 26, 1920.

1,389,181.

Patented Aug. 30, 1921.

2 SHEETS—SHEET 2.

Fig. 7

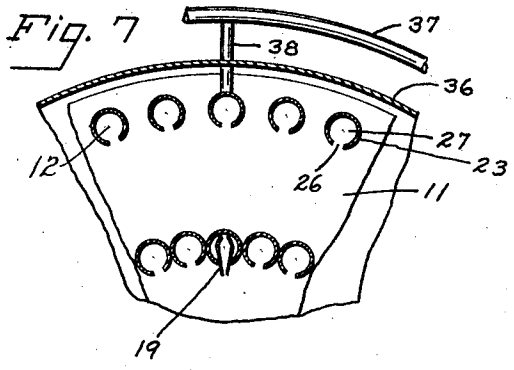


Fig. 8

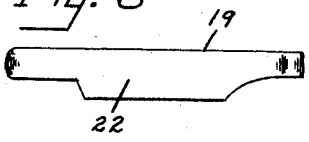


Fig. 9

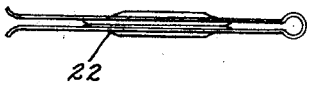


Fig. 10

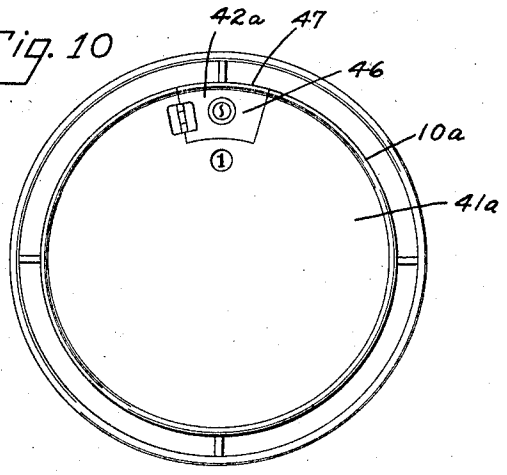


Fig. 11

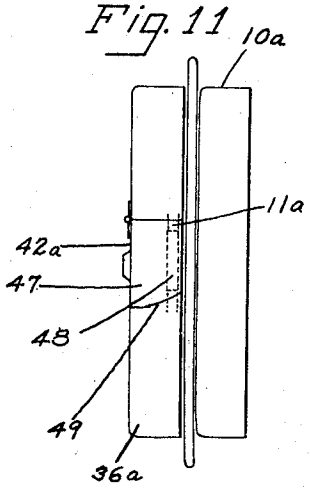
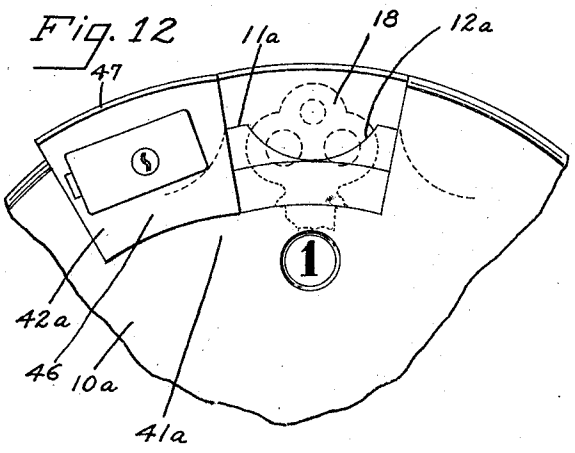


Fig. 12



Inventor

Jacob Benson

By Louis M. Schmidt

Atty.

UNITED STATES PATENT OFFICE.

JACOB BENSON, OF BRISTOL, CONNECTICUT.

KEY-CABINET.

1,389,181. Specification of Letters Patent. Patented Aug. 30, 1921.

Application filed August 26, 1920. Serial No. 406,065.

To all whom it may concern:

Be it known that I, JACOB BENSON, a citizen of the United States, residing at Bristol, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Key-Cabinets, of which the following is a specification.

My invention relates to improvements in key-cabinets, and the object of my improvement is simplicity and economy in construction and convenience and efficiency in use.

In the accompanying drawing:—

Figure 1 is a front elevation of my improved key-cabinet.

Fig. 2 is a plan view of the same.

Fig. 3 is a fragmentary front elevation, with the door in the open position.

Fig. 4 is a sectional view on an enlarged scale on the line 4—4 of Fig. 1.

Fig. 5 is a fragmentary plan view, with the top wall in part broken away, on the same scale as Fig. 2.

Fig. 6 is a plan view on an enlarged scale of the blank for one of the adapters for use in housing flat keys, before being bent in the middle for the final shaping.

Fig. 7 is a sectional view on the line 7—7 of Fig. 4.

Fig. 8 is a side elevation of one of the adapters.

Fig. 9 is a plan view of the same.

Fig. 10 is a front elevation, on a reduced scale, of a modified form of structure for use in housing flat keys.

Fig. 11 is a plan view of the same.

Fig. 12 is a fragmentary front elevation on an enlarged scale of the same, with the door in the open position.

My improved key cabinet comprises a casing 10 that is generally of cylindrical form in which is operatively housed a drum 11 that is provided with a plurality of sockets 12 that are adapted individually to receive and house a key, the said sockets 12 being distributed around the periphery, there being, in the form shown in Figs. 1 to 5 inclusive, two rows thereof arranged in circular form and concentric one with the other, comprising the outer row 13 and the inner row 14.

As to the keys, the sockets 12 are adapted to receive directly a key 13 of the form having a radial ward 16 that is connected to the stem 17, being the common form of key known as a house-key and used largely in factories for the doors for different rooms, and the said sockets 12 are arranged to receive a key 18 such as is used in a lock of the form known as a cylinder-lock by means of an adapter 19 of skeleton form that is itself receivable in the socket 12 and provides a reduced or auxiliary socket 20 that is an operative fit for the said flat key 18. In Fig. 4 the house-key 15 is shown in the socket 12 in the outer row 13 and the flat-key 18 is shown in the socket 12 in the inner row 14.

The adapter is made of sheet metal, as shown in Fig. 6, which represents the blank of the proper form for being bent at the middle 21 so as to bring the two arms 22 in opposition one to the other and approximately in parallelism, so as to provide a spring holding effect for the adapter itself when positioned in the socket 12 and to also provide a spring holding effect for holding the flat-key 18 in place.

The socket 12, is provided by means of a piece of tubing 23 having a bore such as to provide a loose fit for the stem 17 of the house-key 15, is closed at the rear end 24, is open at the front end 25, and has a slot 26 on the lower side that extends through the inner wall 28 and connects with the bore 27 of the tube 23 for admitting the radial ward 16.

The tube 23 is of sufficient length to receive and house substantially the entire length of the key stem 17 leaving the ring 29 projecting forwardly from the front face 30 of the drum 11, and when the adapter 20 is used for receiving a flat-key 18 the head portion 31 thereof projects similarly from the said front face 30, as shown in Fig. 4.

The tubes 23 terminate at the front ends in the front face plate 30 mentioned, and at the rear, closed ends 24 are merged into the structure of the rear plate 32, the structure of the drum 11 and the casing 10 conforming generally to what may be designated as a squirrel-cage form of structure.

The axial or hub structure of the drum 11 comprises a sleeve 33 on which the front and rear plates 30 and 32 are mounted and which is itself operatively mounted on the shaft 34, which is supported by the casing 10.

The drum 11 is, furthermore, provided with a hand wheel or operating wheel 35, positioned at about the middle of the entire

structure, concentric with the axis, and extended radially outwardly beyond the cylindrical side wall 36 of the casing 10, suitably to be grasped and serve as a handle for rotating the drum 11. As shown, the said hand wheel 35 comprises a rim 37 that serves as the handle proper, and which is supported by a plurality of spokes 38 that are connected at their inner ends by some part of the internal structure of the drum 11, as to the particular tubes 23 that may be in registration therewith.

The radial part of the wheel 35, which in the present instance comprises the spokes 38, travels in a slot 39 in the casing side wall 36, the said slot 39 serving to divide the casing into two parts, comprising the rear part that is composed of the rear portion of the cylindrical side wall 36 and the back casing wall 40, and the front part that is composed of the front portion of the said cylindrical side wall 36 and the front casing wall 41. The two casing parts are interconnected through the medium of the shaft 34 which is connected at its rear end to the back casing wall 40 and at its front end to the front casing wall 41.

In use, the back casing wall 40 is affixed to a supporting wall, being the side wall of an office in a factory or public building or the like, and serves as the support for the key cabinet structure. Thus the front part of the casing described above will be supported through the medium of the shaft 34.

In order to provide access to the sockets 12 the front casing wall 41 is provided with a door 42 that is provided with a lock 43 that is operated by a key that is inserted in the key-hole 44, the said door 42 being of such size that when open one or more sockets 12 will be exposed in both the outer row 13 and the inner row 14, as shown, or a separate door may be provided for each row, as may be desired.

The front face 30 of the drum 11 is provided with a set of numbers 45 for the different sockets, being visible through sight holes 50 in the casing 10, which numbers may be selected and arranged according to any system desired.

In the modification shown in Figs. 10, 11, and 12 the squirrel-cage form of structure is departed from in that the keys when housed in the drum 11^a are disposed of radially instead of longitudinally or in parallelism with the axis as in the form previously described, and the particular device now being considered is adapted for flat-keys only, and, as a further detail, the said keys 18, as shown, are positioned flatwise in the said drum 11^a. The keys 18 are inserted from the outer side radially into a socket 12^a that has the open mouth 48 at the periphery of the drum 11^a, and in order to provide access thereto the door 42^a to the casing 10^a comprises besides the main or body part 46 that is hinged to the adjacent body of the front wall plate 41^a and is positioned in a radial plane, the overhanging part 47 at right angles to the main part 46 and which when in the closed position overhangs the mouth 48. That is to say, the cylindrical side wall 36^a is interrupted to provide access to the mouth 48 of the socket 12^a by means of a suitable opening 49 and the overhanging part 47 of the door 42^a serves as the closure for the said opening 49.

The modified structure described provides a relatively flat or shallow structure, and is suitable where only the one form of key is to be provided for.

While the device described is adapted primarily for housing keys it may be used for housing other articles, by making proper changes in the details.

I claim as my invention:—

1. A key cabinet structure comprising a casing having a rear wall that is adapted to be opposed to a supporting wall, a shaft extended forwardly from said rear wall and supported therefrom in fixed position, a drum having a plurality of sockets mounted to rotate on said shaft, the receiving ends of said sockets being positioned at the end portion of said drum that is remote from said rear wall, a handle for rotating said drum, and said handle being connected to the drum at the periphery thereof, and in a radial plane intermediate said receiving ends and rear wall.

2. A key cabinet structure having a casing, a drum mounted to rotate in said casing, the peripheral wall of the casing exterior to the said drum being divided by an endless slot, and a handle connected to the said drum and extended through the said slot for rotating the drum.

3. A key cabinet structure as described in claim 1, the said casing comprising also a front wall, and the said front wall being solely supported by the said shaft.

4. A key cabinet structure comprising a casing, a drum operatively housed for rotative movement in said casing and having a plurality of sockets, the wall structure of said sockets being constructed and arranged individually to house the shank portion only of a key, so that the handle portion of the key will in each case project beyond the structure of the drum, and opposed portions of the drum and the inclosing wall of the casing being spaced to provide a housing chamber for said handle portions of the keys.

5. A key cabinet structure comprising a casing, a drum operatively housed therein for rotative movement and having a plurality of sockets, the border wall structure of the individual sockets being constructed and arranged for receiving and housing the

bit end portion of a key, and the inclosing wall of the casing having a portion that is opposed to the receiving ends of said sockets and separated therefrom by an open space that is adapted to receive and house the handle portions of keys positioned in said sockets, whereby said portion of the wall of the casing is adapted to prevent accidental removal of the keys when the drum is rotated.

6. A key cabinet structure having a key receiving drum that is rotatively mounted and has a plurality of individual sockets for receiving the keys, the wall structure for said sockets being generally of tubular form, and the said wall structure being provided on one side with a longitudinal slot for receiving the bit portion of the key housed therein.

7. A key cabinet structure having a drum that is provided with a plurality of sockets for receiving each a key, and an adapter device for being inserted in said socket, said adapter device being constructed and arranged for receiving a key of a different form of structure from that of a key that is receivable in said sockets.

JACOB BENSON.