April 2, 1963 H. H. MALLETT 3,084,008

AUTOMATIC LOCKING KEY SAFE

Filed Aug. 15, 1961

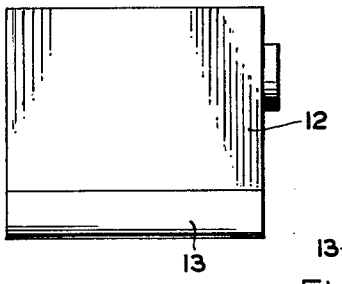


FIG. 1

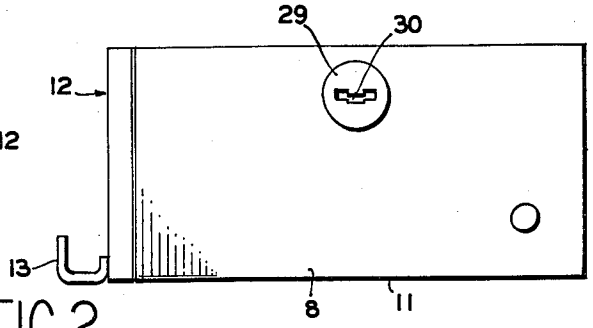


FIG. 2

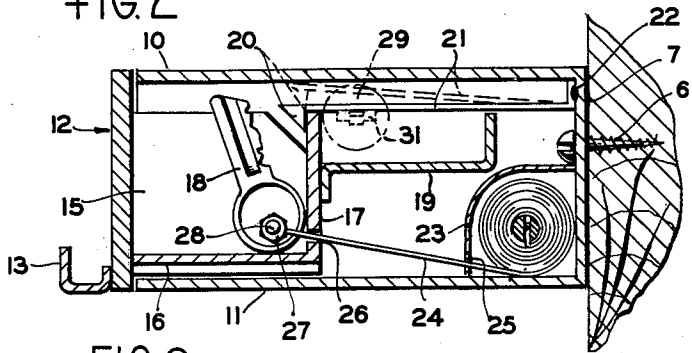


FIG. 3

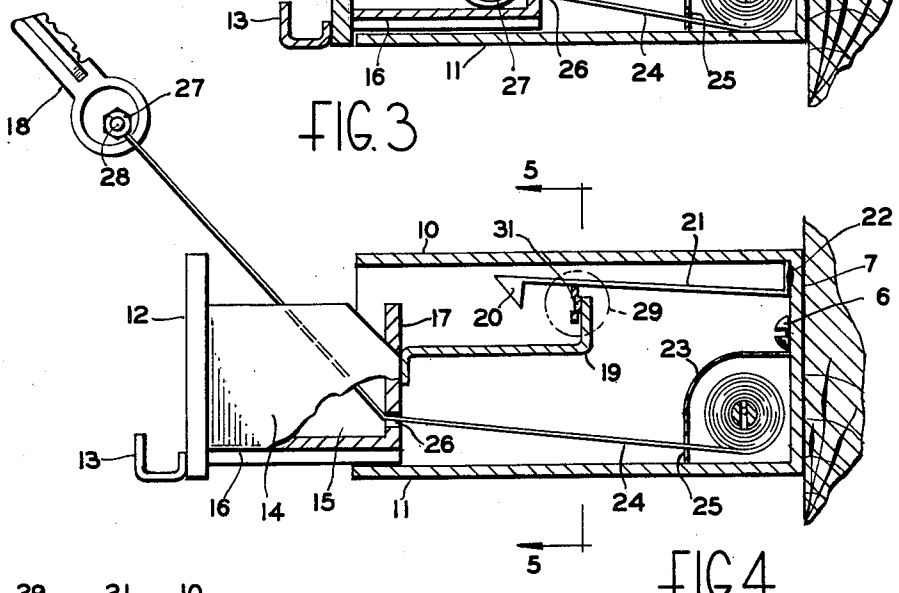


FIG. 4

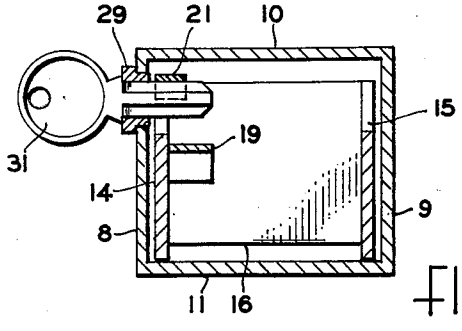


FIG. 5

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AUTOMATIC LOCKING KEY SAFE

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My invention relates to automatic locking key safes and the like and in particular to the type of key safe used by real estate brokers where a single house key is made available to several authorized persons who each have a master key to the safe containing the house key; such safe usually being attached to the house to be entered.

Prior to my invention there was no way to be positively assured, after a house key had been removed from a key safe, that it was returned to the key safe or, if returned, that the key safe was securely locked to prevent unauthorized persons from using the key to enter the house.

One of the objects of my invention is the provision of a key safe which, when unlocked by an authorized person, will only permit the removal of the house key as far as the lock of the house.

Another object of my invention is to provide a key safe so constructed that when an authorized person has used the house key contained therein the key will automatically be returned to the key safe compartment and the compartment will automatically lock itself.

Other objects and advantages of my invention will be apparent from the specifications and drawings in which:

FIG. 1 is an end view of the front of the key safe box.

FIG. 2 is a side view of the safe shown in FIG. 1.

FIG. 3 is a cross-sectional side elevation of the safe shown in FIG. 2.

FIG. 4 is a cross-sectional view similar to FIG. 3 but showing the safe unlocked and open.

FIG. 5 is a cross-sectional view of the safe taken along 5—5 of FIG. 4.

Referring to the drawings, it will be understood by those skilled in the art that the key safe may be affixed to the door or the side of the house in any suitable manner such as wood screws **6** through the back of the key safe.

The key safe has a back **7**, sides **8**, **9**, top **10** and bottom **11** forming the main compartment of the safe which is open at the front to receive a sliding drawer having a front **12** curled over at the bottom to form a drawer pull or handle **13**. The drawer has sides **14**, **15**, bottom **16** and back **17**, its top being open to receive house key **18** when the drawer is in its extended or open position.

Attached to back **17**, in any suitable manner, is an L-shaped catch **19** adapted to ride in and out with the drawer; said catch when forced inwardly, is so placed that it will trip and interlock with dog **20** on the front end of flexible spring steel arm **21** which at its rear end is firmly affixed at **22** to back **7** as by spot welding or any other suitable manner.

At the bottom rear of the key safe compartment is a housing **23** containing a coiled flat spring steel tape **24** which extends through the casing by means of orifice **25** and through the drawer back **17** by means of orifice **26**, its end being attached to house key **18** in any suitable manner such as by the use of a nut **27** and bolt **28**.

In key safe side **8**, near the top, there is located an ordinary master lock **29** having a keyway **30** into which may be inserted a master key **31** and which, when turned in the lock forces spring steel arm upward thereby disengaging dog **20** from its latched engagement with the top of back **17** thus allowing the drawer to be pulled outwardly until the end of L-shaped arm **19** contacts the end of key **31**; thus arresting further outward movement of the drawer.

Operation

The key safe is attached adjacent to the lock to be opened and certain authorized persons issued master keys **31** which will enable them to operate master lock **29**. The house key **18** is attached to the end of coil spring **24** by means of nuts **27** and bolt **28** and placed in the bottom of the drawer and the drawer shut as shown by reference to FIG. 3.

Now any authorized person having a master key inserts it in the keyway **30** of lock **29** and on turning the key in the lock arm **21** carrying with it dog **20** is lifted so that dog **20** is disengaged from locking contact with the top of back **17**. The drawer is now opened by pulling outwardly on handle **13** against the increasing tension of coiled spring **24**. The drawer may be pulled outwardly until L-shaped extension **19** strikes the end of key **31** thus arresting further outward movement of the drawer as may be seen by reference to FIG. 4. Now with the drawer pulled out the master key **31** may be removed from lock **29**.

Key **18** is now removed from the drawer, and pulled out against increasing tension of the coil spring **24**, until it can be inserted in the lock to be opened. After unlocking the door key **18** is released by the operator; whereupon the coil spring takes over, first pulling the key **18** back into the drawer and then as the key abuts on back **17** the spring automatically closes the drawer to the position shown in FIG. 3, and in closing dog **20** engages the top lip of back **17** securely locking the key safe.

If the operator has failed to remove the master key from the lock **29**, before releasing key **18**, the safe will be automatically locked on removal of the master key which will then allow dog **20** to be forced into latched contact with back **17** under the impetus of spring steel arm **21**.

It will be apparent to those skilled in the art that several changes may be made in the structure of my invention without departing from its scope, in which, I claim:

1. In an automatic locking key safe of the character described, a main compartment open at the front, a sliding drawer in said main compartment having a front and back, said front normally closing the opening in said main compartment, a spring mounted dog attached to the main compartment normally in locked engagement with the back of said drawer; expansible tension means attached to said main compartment and having one end extending through said compartment and into said drawer and attached to a lock key normally abutting on the rear of said drawer to forcibly hold said drawer closed; means for forcing said dog out of engagement with the rear of said drawer so that said drawer and said lock key may be extended against the force of said tension means.

2. In an automatic locking key safe of the character described, a main compartment open at the front, a sliding

drawer in said main compartment having a front and back, said front normally closing the opening in said main compartment, a spring mounted dog attached to the main compartment normally in locked engagement with the back of said drawer; a coiled spring attached to said main compartment and having one end extending through said compartment and into said drawer and attached to a lock key normally abuting on the rear of said drawer to forcibly hold said drawer closed; a key operated master lock extending through said main compartment adapted to force said dog out of engagement with the rear of said drawer so that said drawer and said lock key may be extended against the force of said coiled spring.

3. In an automatic locking key safe as described in claim 2; and an L-shaped extension arm attached to the rear of said drawer adapted to abut on said master lock key when said drawer is extended to limit further extension of said drawer.

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