Sept. 4, 1956 J. F. REIMER 2,761,454

FILE TRAY WITH COMPRESSOR OR FOLLOWER

Filed Nov. 20, 1953 2 Sheets-Sheet 1

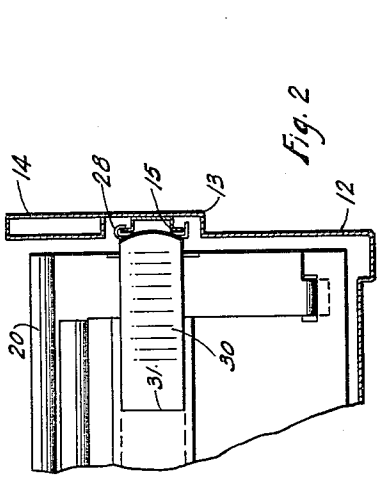


Fig. 2

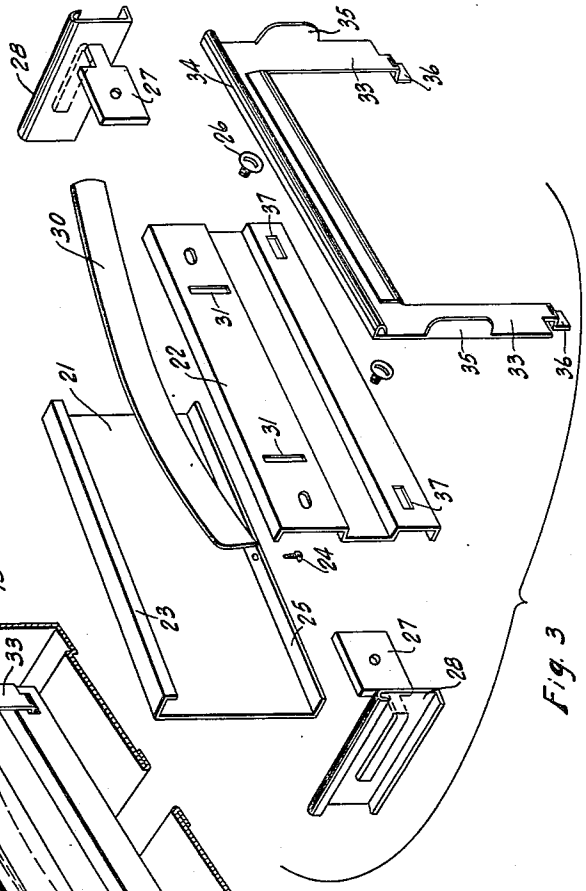


Fig. 3

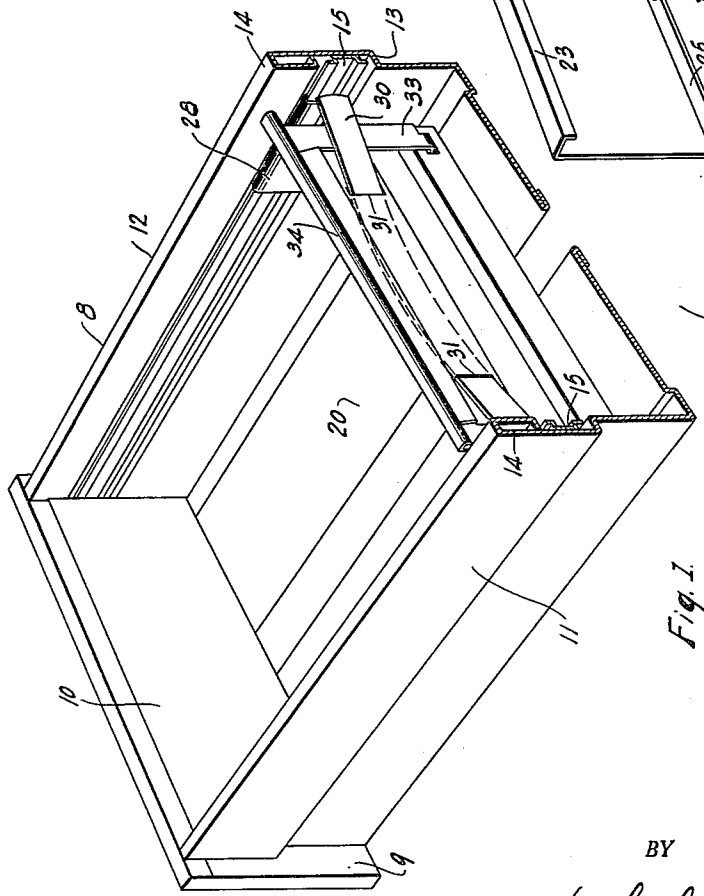


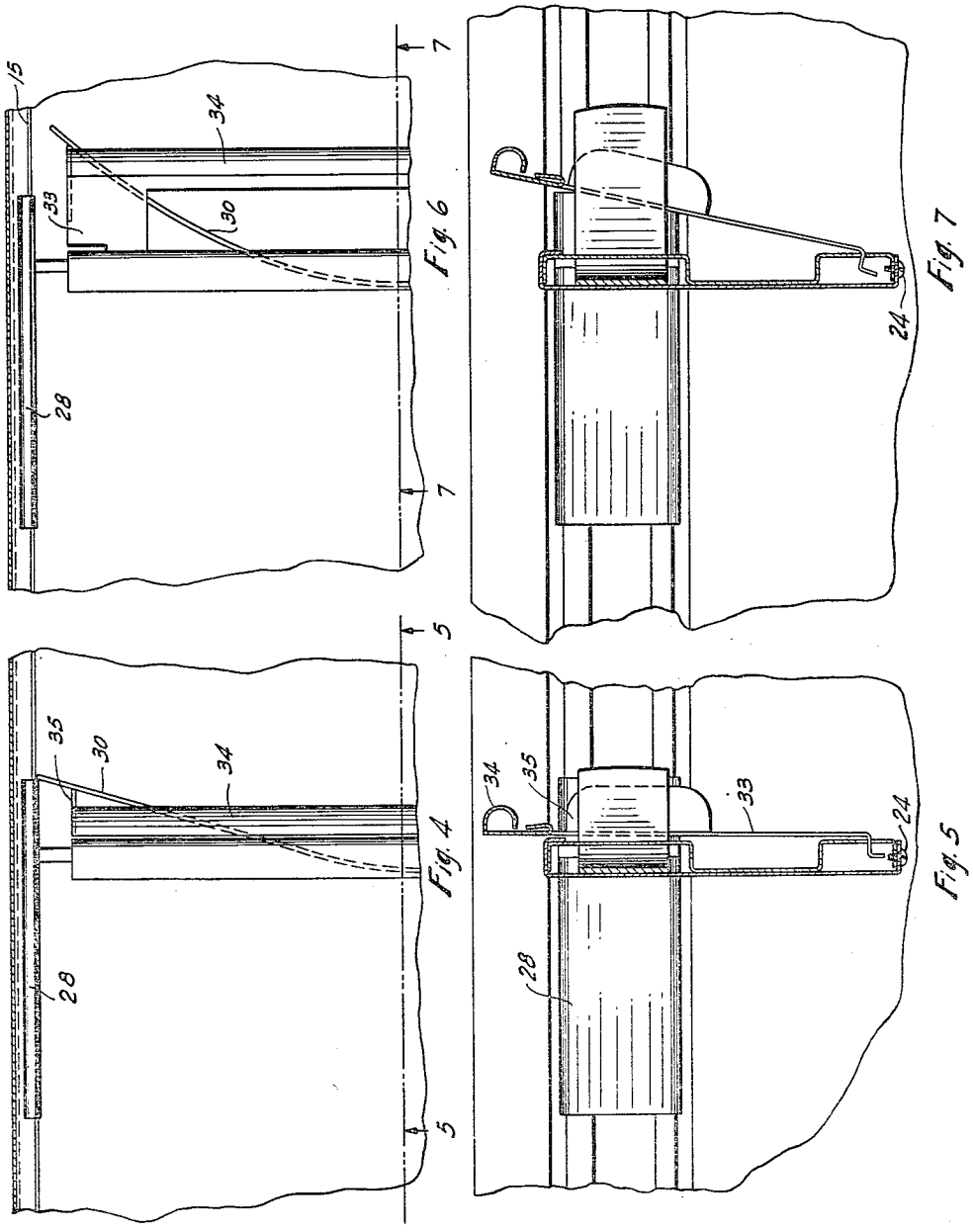
Fig. 1

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FILE TRAY WITH COMPRESSOR OR FOLLOWER

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FILE TRAY WITH COMPRESSOR OR FOLLOWER

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2 Claims. (Cl. 129—30)

This invention relates to a file tray with compressor or follower.

The conventional compressor usually locks in notches in the tracks upon which it is guided. Due to manufacturing limitations, these notches are spaced at least one eighth inch apart. The compressor cannot be set into compressing position in any intervals which are less than the notches in which it locks.

In the present device, an arcuately bent steel spring engages an unnotched surface with a wedging action and is released by flexing its free ends away from such surface. Accordingly, infinite adjustment is possible and the compressor may be set to the most desirable position without any regard for any prescribed positions. Yet the lock becomes absolutely positive and may be released with the utmost facility. The compressor, moreover, is self-adjusting to equalized position between its guide rails.

In the drawings:

Fig. 1 is a fragmentary view in perspective showing a tray or drawer with its rear wall cut away to expose the compressor.

Fig. 2 is an enlarged fragmentary detailed view in transverse section through the drawer, a portion of the compressor being shown in rear elevation.

Fig. 3 is an exploded view in perspective of the component elements of the compressor.

Fig. 4 is a fragmentary plan view of one end of the compressor and the associated guide rail of the tray showing the parts as they appear in locked position.

Fig. 5 is a view taken in section on the line 5—5 of Fig. 4.

Fig. 6 is a view similar to Fig. 4 showing the compressor lever and spring manipulated to release position.

Fig. 7 is a view taken in section on the line 7—7 of Fig. 6.

The tray or drawer may be conventional, comprising a body portion **8** having a front wall **9**, false front **10**, sides **11** and **12**, and the usual rear wall (not shown). The sides are formed outwardly at **13** and reversely folded downwardly upon themselves to provide a rectangular marginal bead at **14**. Between the margin **14** and the shoulder **13** is a channel in which guide rails **15** are mounted as clearly shown in Fig. 2.

The compressor **20** comprises a front plate **21**. To this is fastened a rear plate **22** to which other parts are assembled as herein after described. While the connection of the plates might be made in any manner, I engage the top of the rear plate **22** beneath the overhanging flange **23** of the front plate and fasten the plates together at their bottom margins by means of bolt **24** threaded through the bottom flasge **25** of the front plate.

Before these parts are connected, I mount on the back plate by means of screws **26** the arms **27** which carry the sliding shoes **28** which engage the guide rails **15** and slide thereon. Also mounted on back plate **22** is flat spring **30** which passes through the slots **31** of the back plate as clearly shown in Fig. 1. The length of the

spring and the curvature to which it is forced by passing through the slots, are such that its ends are biased into engagement with the inner surface of the guide rails **15** and slide thereon. The spring is perfectly free to adjust itself through the slots **31** so that the pressure of its respective ends on the respective guide rails will be equalized.

The ends of the spring are necessarily rearwardly divergent from the ends of the back plate **22** of the compressor. Between the ends of the spring and the ends of the back plate extend the legs **33** of a compressor lever having a beaded handle portion **34** which extends transversely of the tray or drawer at a level slightly higher with that of the front plate, where it is conveniently accessible. Each of the legs **33** has a rearwardly projecting ear **35** which is in substantial engagement with one of the ends of spring **30**. Offset lugs **36** at the lower ends of the lever legs **33** are engaged in slots **37** with which the back plate of the compressor or follower is provided. Such engagement provides a fulcrum upon which the lever is readily manipulated between its normally upright position of Fig. 5 and its spring flexing position of Fig. 7.

With the parts assembled as shown, the bias of the spring **30** is such that its ends engage the guides at the sides of the tray with sufficient pressure so that they will not slip thereon. Any rearward pressure on the compressor simply wedges the spring ends the more tightly to hold the compressor securely against rearward yielding movement in the tray. However, if the operator uses the lever handle **34** to swing the lever slightly rearwardly from its Fig. 5 position to its Fig. 7 position, the ears **35** of the lever engage the free ends of the lock spring **30** to flex such spring slightly rearwardly as in Figs. 6 and 7, thereby disengaging the ends of the spring from the guide **15** and leaving the compressor perfectly free for manipulation along the guide, its shoes **28** slidably supporting it for such movement.

At any point at which the rearward pressure of the handle **34** of the lever is released, the bias of spring **30** will restore it and the lever to the position illustrated in Figs. 1, 4, and 5. This locks the compressor in any one of the infinite number of positions to which it is adjustable.

It will be understood that the word compressor has been used interchangeably with the word "follower" in the foregoing description and the word "tray" has been used to include a sliding tray or drawer as well as a tray for desk top use. It is not desired to limit the invention to any specific application or structure except as defined in the following claims. The locking principle may be widely used in various types of devices by using a bowed spring slightly exceeding in length the width of the confined space in which the spring is operable, such space here comprising the space between the parallel guides of the tray.

I claim:

1. The combination with a tray having guide rails along its sides, of a compressor mounted on said guide rails and provided with means for clamping it to the tray in an infinite number of positions of adjustment, the compressor comprising a plate transversely spanning the tray and provided with shoes in bearing engagement with respective rails, spring means comprising a strap having an intermediate portion, means for mounting said strap on said plate and comprising means to hold said intermediate portion against substantial flexing with respect to said plate, oppositely projecting free ends of said strap being biased toward a position of spread in which the overall distance between such ends slightly exceeds the spacing between said rails, said free ends being resiliently flexible away from the plate in a direction to reduce the

overall spread between them sufficiently to clear said rails, the said free ends wedging between the rails to resist rearward movement of the compressor when the said spring ends engage the rails, and levers pivoted to the plate and disposed between the plate and the respective spring ends for deflecting said spring ends from their rail-engaging positions toward positions of rail disengagement, said levers having offset lower end portions and said plate having slots in which said lower end lever portions are inter-lockingly engaged, whereby said levers are fulcrumed respecting the plate, the said levers having a common handle extending along the top margin of the plate and connected to upper free end portions of said levers for hand operation of said levers in a direction longitudinal of the tray to swing said levers on arcuate paths transverse to said plate.

2. The combination with a tray comprising sides having guide rails, a compressor having bearing shoes slideable upon the respective rails, the compressor comprising front and rear plates in mutual connection, the rear plate being provided with slots, a flat spring threaded through the slots of the rear plate and curved against its tension to dispose an intermediate portion thereof against

said front plate and portions thereof against the rear plate adjacent said slots, said spring having free end portions projecting divergently rearwardly from said plate and of such overall length as to be normally engaged with opposite portions of said rails, lever means intervening between the plate and the free end portions of the spring and carrying handle means above the spring, said lever means being in pivotal connection beneath the plate below the spring, and having rearwardly projecting thrust elements engageable with the spring ends upon manipulation of the handle means to deflect the spring ends from guide rail engagement.

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