E. H. ELLISON.

COMPRESSOR FOR FILING DRAWERS.

APPLICATION FILED SEPT. 13, 1913.

1,129,282.

Patented Feb. 23, 1915

3 SHEETS—SHEET 1.

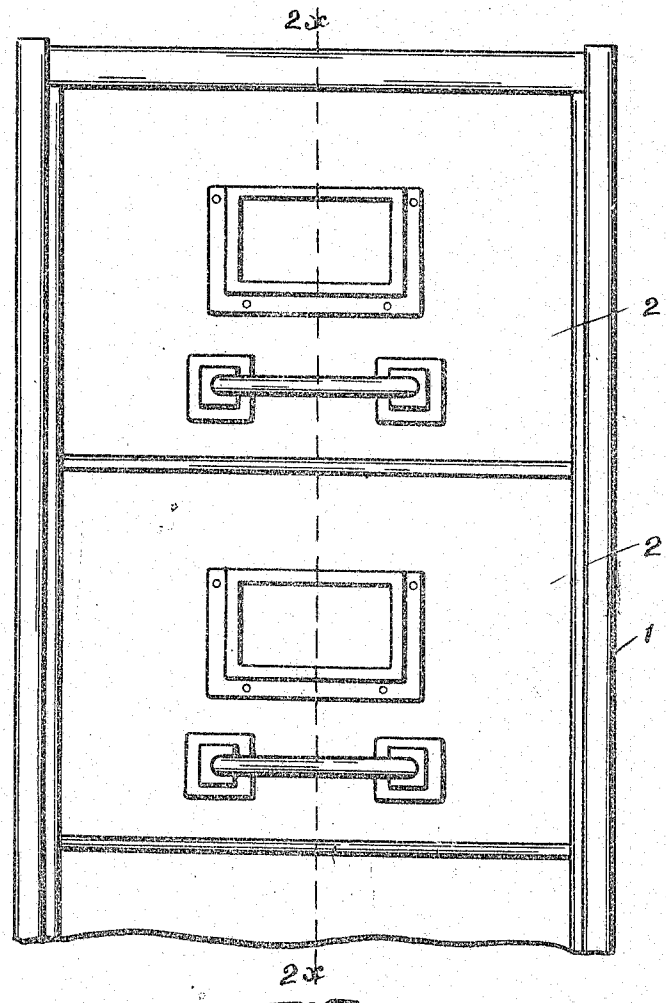


FIG. 1.

Witnesses

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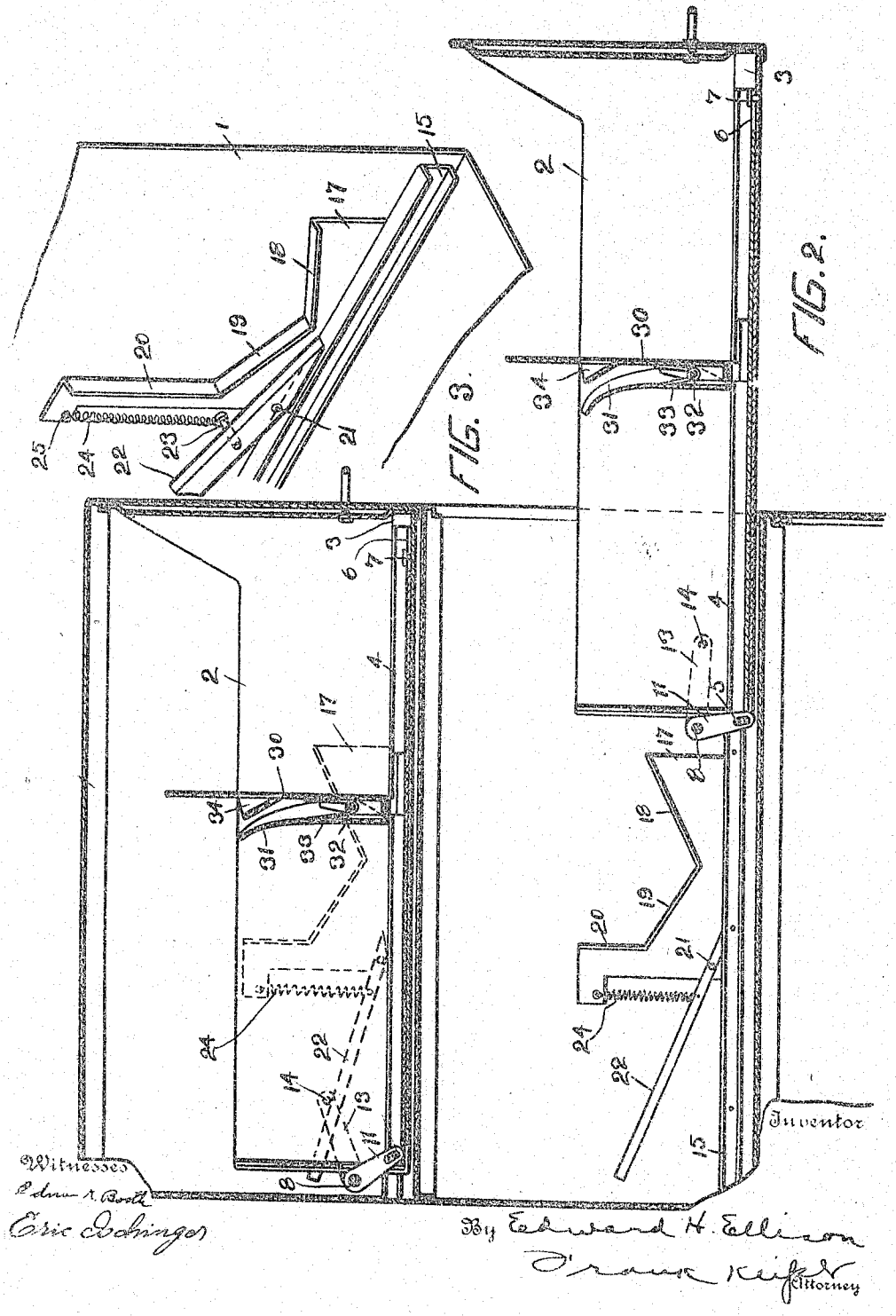
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3 SHEETS-SHEET 3.

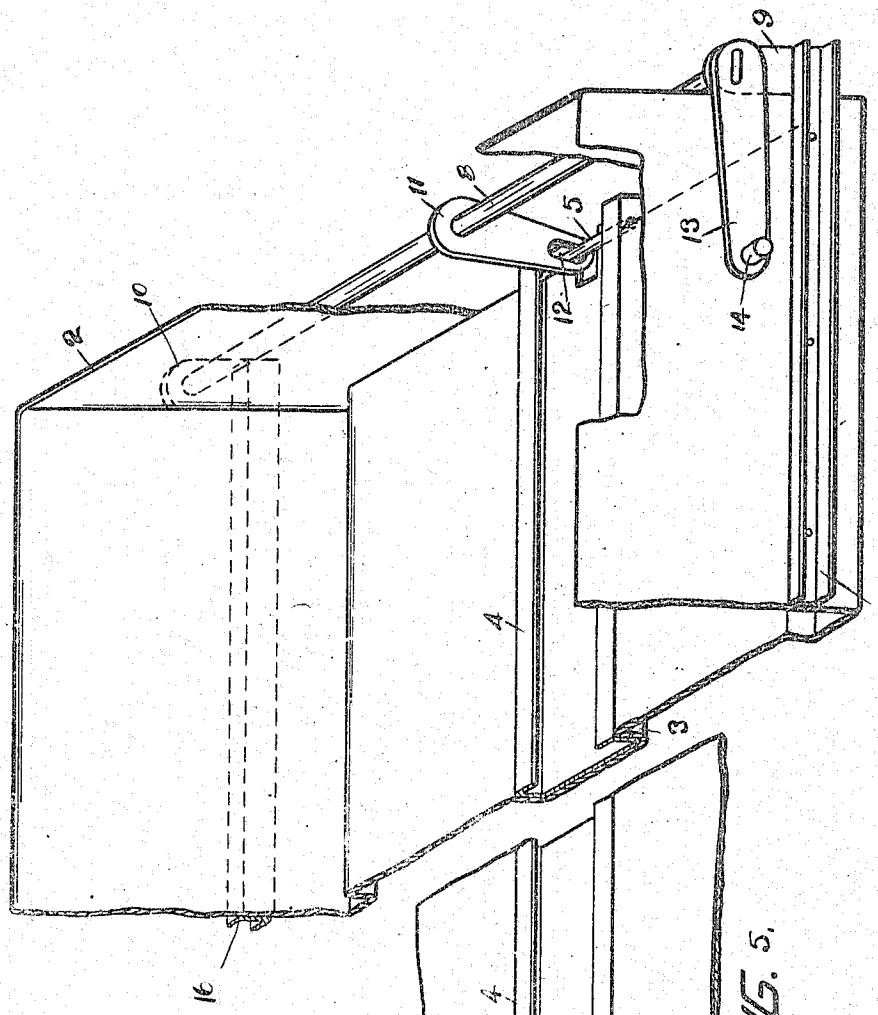


FIG. 4

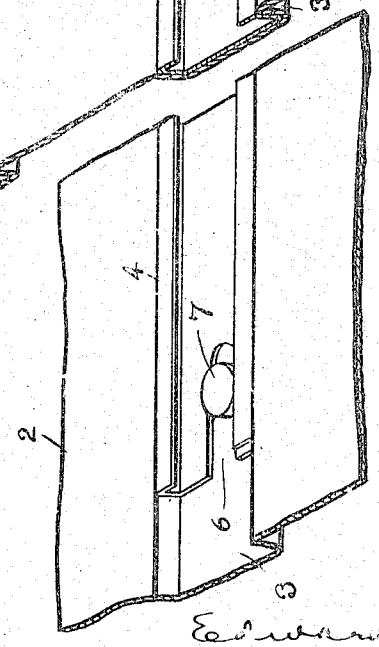


FIG. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD H. ELLISON, OF JAMESTOWN, NEW YORK, ASSIGNOR TO ART METAL CONSTRUCTION COMPANY, OF JAMESTOWN, NEW YORK, A CORPORATION OF MASSACHUSETTS.

COMPRESSOR FOR FILING-DRAWERS.

1,129,282. Specification of Letters Patent. Patented Feb. 23, 1915.

Application filed September 13, 1913. Serial No. 789,707.

To all whom it may concern:

Be it known that I, EDWARD H. ELLISON, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Compressors for Filing-Drawers, of which the following is a specification.

The object of this invention is to provide a new and improved form of compressor for filing drawers.

Another object of this invention is to make the compressor adjustable relatively to the drawer and make its final action automatic on the closing of the drawer.

Another object of this invention is to mount the compressor so that it will be moved to its final compressing position with a strong leverage.

Another object of this invention is to mount the compressor so that it will yield slightly to accommodate itself between the leverage which forces its position and the contents of the drawer.

Another object of this invention is to mount the compressor so that it will be released by the opening of the drawer and forced to compressing position on the closing of the drawer.

Another object of this invention is to provide in the drawer a slide extending the length of the drawer that is operated on the opening and closing of the drawer, the compressor being fastened manually in any position on this slide.

Another object of this invention is to arrange the drawer and the casing containing it so that the compressor will be operated from without the drawer and preferably through fixed parts on the casing.

These and other objects of my invention will be illustrated in the drawings, described in the specification and pointed out in the claims at the end thereof.

In the accompanying drawings, Figure 1 is a front elevation of a filing case containing a plurality of filing drawers adapted to my invention. Fig. 2 is a vertical section on the line 2^x—2^x of Fig. 1. Fig. 3 is a detail perspective view of the operating cam on the casing containing the drawer. Fig. 4 is a perspective view of the rear end of the drawer partly broken away. Fig. 5 is a detail view of the forward portion of the bottom of the drawer.

In the accompanying drawings, like reference numerals refer to like parts.

In the drawings, reference numeral 1 indicates the casing having a plurality of drawers 2—2 mounted therein. Each of these drawers is provided with a channel 3 bent in the bottom thereof in which channel the slide 4 is mounted to reciprocate therein. This slide has a cross pin 5 at its rearward end and has the recess 6 in its forward end. Mounted in the channel 3 is the stud 7 with which the recessed end of the slide engages and by which it is held to place in its forward and back movement. At the rear end of the drawer, the shaft 8 is mounted to oscillate in suitable brackets 9 and 10. This shaft carries the crank 11 thereon, the lower end of which is slotted at 12 to engage with the pin 5 so that as the shaft 8 rocks, the slide 4 is moved forward and back through the engagement between the crank 11 and the pin 5. Mounted on one end of the shaft 8 is the crank 13 having the pin 14 in its outer end. Mounted on the casing is the channel 15 which is adapted to receive a similar channel 16 on the drawer by which engagement the drawer is adapted to slide in the channel. These channels are arranged in pairs on each side of the drawer.

Mounted above one of the channels 15 in the casing is the cam plate 17 having the downwardly inclined flange 18, the upwardly inclined flange 19 and the vertical flange 20. Near the rear end of the cam plate 17 is pivotally mounted at 21 the cam lever 22. This cam lever is provided with the pin 23 thereon which pin is connected by the spring 24 to pin 25 mounted on the upper end of the cam plate 17.

The operation of the parts will now be understood as follows: When the drawer is closed, the pin 14 will engage the cam lever 22 which is held up by the spring 24. As the pin 14 moves back along its engagement with the lever 22, it forces the arm 13 upwardly into the position shown in the upper part of Fig. 2, causing the slide 4 to move forward, and if the slide 4 encounters resistance, it limits the upward movement of the crank 13 and causes the lever 22 to

be depressed, throwing tension upon the spring 24. The resistance to the forward movement of the slide 4 is encountered as follows: As seen in Figs. 4 and 5, the slide 4 is channel shaped. Mounted to slide thereon is the compressor 30, having a locking dog 31 pivotally mounted thereon at 32 and held by a spring 33 so that its rear end projects backwardly, holding its lower end firmly into engagement with the slide 4, thus locking it in any position in which it may be set. The upright plate of the compressor 30 has the finger hole 34 struck up therein which permits the operator with one hand to draw the locking dog 31 forward at the top, thus releasing the dog at the bottom and permitting the adjustment of the compressor to any position along the drawer. In so adjusting, the operator will press it forward snugly against the contents of the drawer which may be papers or photographic film or any other contents that may have been placed therein. It will be understood that the contents of the drawer are thus held compressed between the manually adjusted compressor and the front of the drawer which is solid and that further pressure will be applied to the contents of the drawer upon the closing of the drawer as has been described above. When the compressor has been so placed to exert pressure upon the contents of the drawer, the drawer is then closed and in the closing of it, the crank 13 will be operated by the cam lever 22 which will cause the slide 4 to move forward toward the front end of the drawer, carrying with it, the compressor 30 which in turn will still further compress the contents of the drawer. To avoid too intense pressure and straining of the parts, the spring 24 will yield sufficiently. When the drawer is brought forward, the pin 14 will engage with the cam 19 by which it will be forced down, causing the slide 4 and the compressor 30 to move rearwardly, thus releasing the contents of the drawer from their high pressure. The cam 18 is also provided to prevent the crank 13 from reaching an abnormally high position when the drawer is open. When moved from either direction, the low part between the cams 18 and 19 will operate on the crank 13 so that the slide 4 will be in its rearmost position with relation to the drawer, permitting the compressor 30 to be set in its most advantageous position by hand and be forced forward therefrom by the subsequent closing of the drawer.

I claim:

1. In a filing case, the combination of a case, a drawer mounted to slide therein, a compressor mounted to slide in said drawer, means operating on the closing of the drawer to move the compressor bodily relatively to the drawer.

2. In a filing case the combination of a case, a drawer mounted to slide therein, a compressor mounted to slide in said drawer, means contained in the drawer, operating on the closing of the drawer to move the compressor bodily relatively to the drawer.

3. In a filing case the combination of a case, a drawer mounted to slide therein, a slide mounted in said drawer having a compressor adjustably mounted thereon, a rock shaft mounted on the drawer, a crank connecting said slide to said shaft.

4. In a filing case the combination of a case, a drawer mounted to slide therein, a slide mounted in said drawer having a compressor adjustably mounted thereon, a rock shaft mounted on the drawer, a crank connecting said slide to said shaft, a crank on the end of said rock shaft, a cam mounted in the casing with which said crank engages and by which it is operated.

5. In a filing case the combination of a case, a drawer mounted to slide therein, a slide mounted in said drawer having a compressor adjustably mounted thereon, a rock shaft mounted on the drawer, a crank connecting said slide to said shaft, a crank on the end of said rock shaft, a cam mounted in the casing with which said crank engages and by which it is operated, said cam being yieldingly mounted.

6. In a filing case the combination of a case, a drawer mounted to slide therein, a compressor mounted to slide in said drawer, means operating on the opening of the drawer to move the compressor bodily relatively to the drawer.

7. A drawer for a filing case having a slide in the bottom thereof, a compressor adjustably mounted in said slide, means mounted in said drawer and connected to said slide for moving said slide.

8. A drawer for a filing case having a slide in the bottom thereof, a compressor on said slide, means for moving said slide longitudinally of the drawer.

9. A drawer for a filing case having a slide in the bottom thereof, a compressor on said slide, a rock shaft mounted in said drawer, a crank connecting said slide to said rock shaft, means to rock said rock shaft and the crank.

10. A filing case having a drawer mounted to slide therein, a cam on said filing case at the side of the drawer, a lever pivotally mounted in the case in line with the cam, the lower end of said lever being below the lowest part of said cam, the upper end of the lever being held up by a spring.

11. A drawer for a filing case having a slide in the bottom thereof, a compressor on said slide, a rock shaft mounted in said drawer, a crank connecting said slide to said rock shaft, a crank on the end of the rock shaft, a cam on the filing case at the side of

the drawer, said cam being adapted to engage with the crank on the end of the shaft to rock the shaft and draw the slide rearwardly when the drawer is moved.

12. A drawer for a filing case having a slide in the bottom thereof, a compressor on said slide, a rock shaft mounted in said drawer, a crank connecting said slide to said rock shaft, a crank on the end of the rock shaft, a cam on the filing case at the side of the drawer, said cam being adapted to engage with the crank on the end of the shaft to rock the shaft and draw the slide rearwardly when the drawer is moved in either direction.

13. A drawer for a filing case having a slide in the bottom thereof, a compressor on said slide, a rock shaft mounted in said drawer, a crank connecting said slide to said rock shaft, a crank on the end of the rock shaft, a cam on the filing case at the side of the drawer, said cam being adapted to engage with the crank on the end of the shaft to rock the shaft and draw the slide rearwardly when the drawer is moved, an incline mounted on the case back of said cam and adapted to be engaged by the crank on the end of the shaft for the purpose of turning said crank and moving the slide forwardly when the drawer is moved rearwardly.

14. In a filing case the combination of a drawer having a fixed plate and a movable plate, means for operating said movable plate from a point outside of the drawer.

15. In a filing case the combination of a drawer having a fixed plate and a movable plate, yielding means for operating said movable plate from a point outside of the drawer.

16. In a filing case the combination of a drawer having a rigid drawer head at the end of the drawer and a movable plate within the drawer between which head and plate the contents of the drawer are adapted to be compressed and means for operating said movable plate from a point outside of the drawer.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD H. ELLISON.

Witnesses:

RAYMOND G. BULLOCK,

HENRY C. FOSBERG.