No. 884,428. PATENTED APR. 14, 1908.

G. STRONG.

CABINET OR NEST OF TRAYS.

APPLICATION FILED JULY 8, 1907.

3 SHEETS—SHEET 1.

Fig. 1.

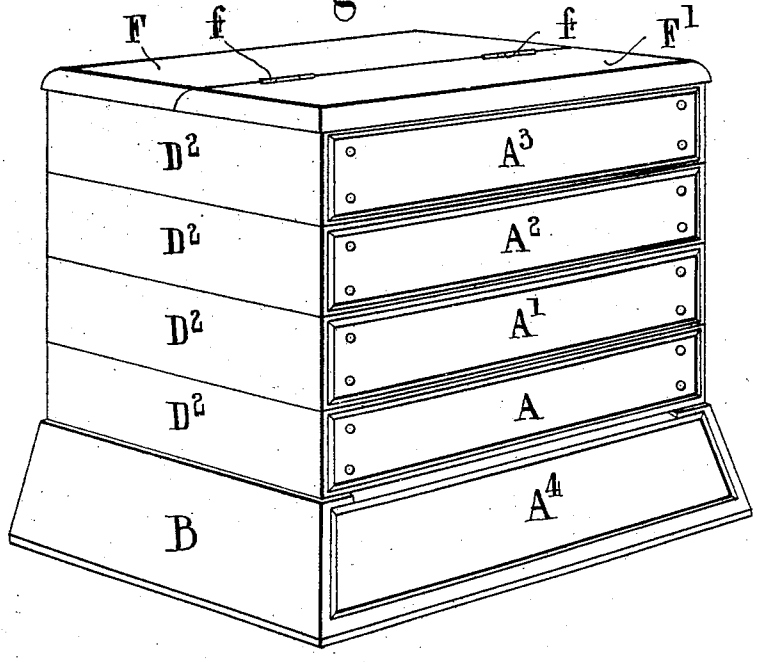
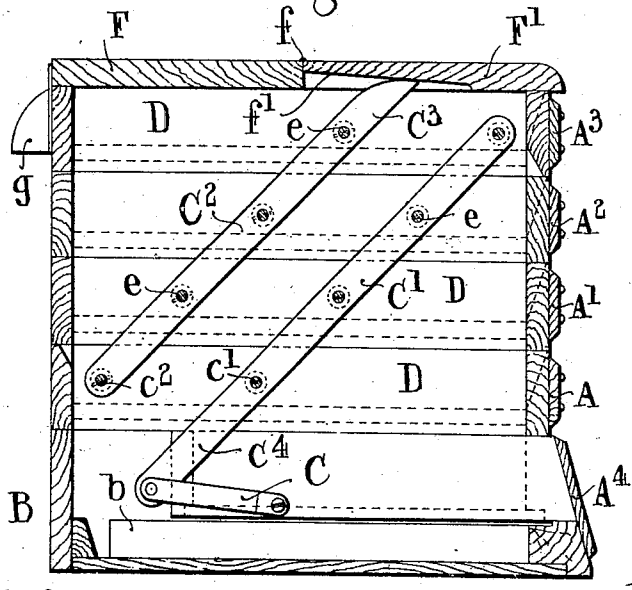


Fig. 3



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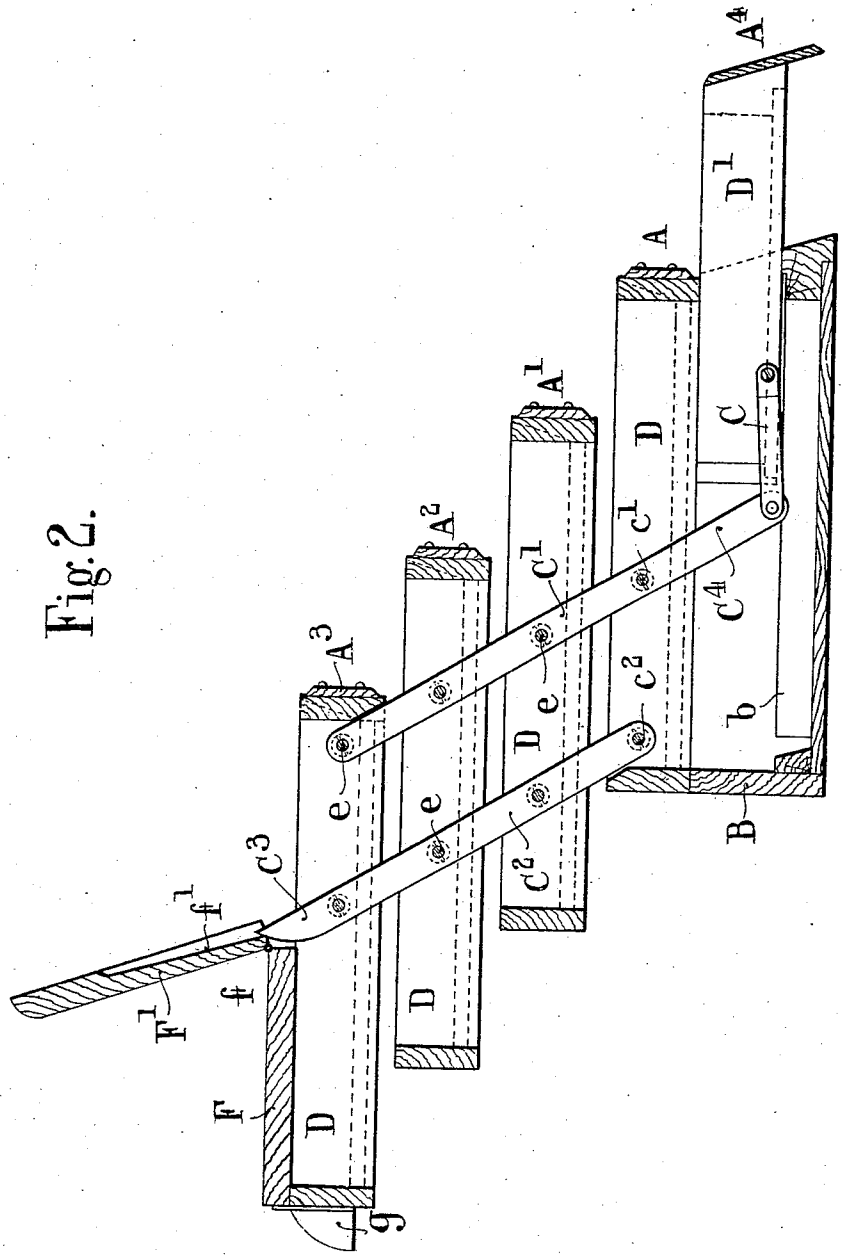
APPLICATION FILED JULY 9, 1907.

3 SHEETS—SHEET 2.

Fig. 2.



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3 SHEETS—SHEET 3.

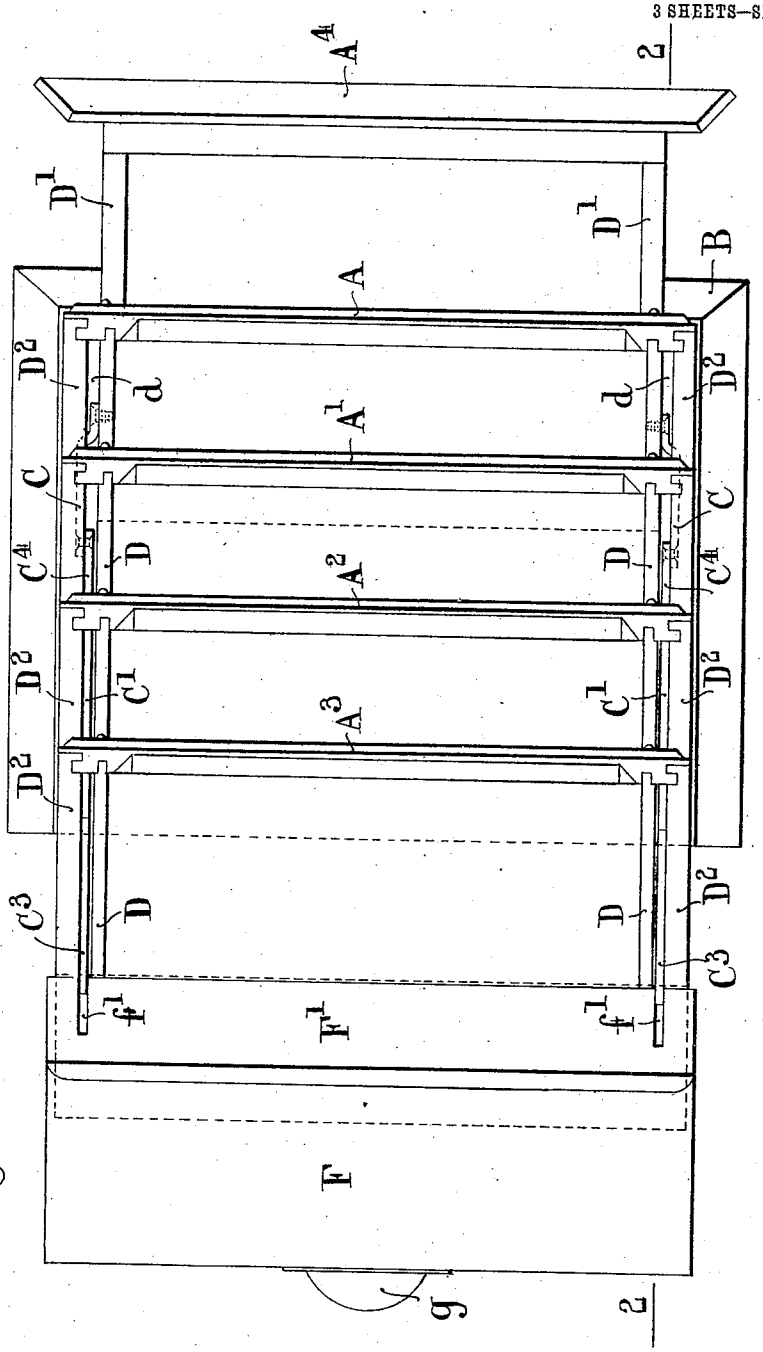

Fig. 4.

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CABINET OR NEST OF TRAYS.

No. 884,428. Specification of Letters Patent. Patented April 14, 1908.

Application filed July 9, 1907. Serial No. 382,927.

To all whom it may concern:

Be it known that I, GEORGE STRONG, a subject of the King of Great Britain, and resident of 40 City road, London, E. C., England, director of Johns Son & Watts Limited, of 40 to 48 City road, aforesaid, have invented an Improved Cabinet or Nest of Trays, of which the following is a specification.

The object of this invention is to provide a cabinet or nest of trays of novel construction, adapted more particularly for containing small and light articles, such for example as show-goods in stores, artists materials, writing materials, cigars and the like. The construction is such that the nest will, when closed, resemble an ordinary chest of drawers, and will open by a simultaneous and progressively increasing movement of mutual separation among the trays, those trays which are mounted above the base moving rearward so as to assume a stepped formation, while those (if any) which are mounted below these upper trays slide forward as drawers so as likewise to assume a stepped formation.

In the accompanying drawings Figure 1 is a perspective view of a cabinet or nest of trays constructed according to the present invention, the cabinet or nest being closed. Fig. 2 is a side elevation, in section on line 2—2 of Fig. 4, showing the cabinet or nest open. Fig. 3 is a similar view showing the structure closed. Fig. 4 is a plan view corresponding to Fig. 2.

Similar letters of reference denote corresponding parts in all the figures.

In the example illustrated five rectangular trays are provided, whereof one A is fixed upon the top of the base B; three others A^1, A^2, A^3 being superposed in succession above the first tray A; while the fifth A^4 is fitted to slide as a drawer in a suitable recess in the base B. The upper trays A^1, A^2, A^3 may be of equal area (viewed in plan) with the fixed tray A, and are connected to the latter by means of pairs of parallel-motion levers one pair at each side of the trays, each pair comprising front and rear members C^1, C^2 fulcrumed as at c^1 c^2 to the side of the fixed tray A and pivoted as at e to the corresponding side D of the trays A^1, A^2, A^3 so as to work in a vertical fore-and-aft plane. The corresponding members of the two pairs of levers are of course situated opposite one another, their pivot pins c^1 c^2 and e being in axial alinement with one another at opposite sides so as to enable all the levers to work together in unison. The arrangement as a whole thus constitutes a parallel-motion system such that while, on the one hand, in the normal or closed position of the nest (as shown in Fig. 3) all the trays A A^1, A^2, A^3 rest directly one upon another so that each subjacent tray is exactly covered by the next superjacent tray, on the other hand when any one of the upper trays A^1, A^2 or A^3 is moved rearwards from this normal position, towards the extreme open position indicated in Fig. 2, each of the remaining upper trays will be caused to move in a similar manner, all these trays remaining parallel and horizontal in consequence of the simultaneous and equal angular movement of all the levers.

It is obvious that, owing to the increasing length of leverage in successive trays, each tray will have a greater movement than the one immediately beneath it, with the result that the front portion of the interior of each tray will become gradually exposed as the rearward movement of the trays progresses, and the series of trays will ultimately assume a stepped formation as shown, their weight resting on the levers.

The rearward portion of the uppermost tray A^3 may be permanently covered as at F, the front portion being provided with a lid F^1 hinged to the cover F as at f and engaged by an upward prolongation C^3 of each rearward lever C^2 whereby it will be automatically raised by a cam-like action as the trays are moved rearwards. For this purpose the upper rear end of the lever-prolongation C^2 may be curved, as indicated, so as to smoothly coact with the bottom of a groove provided as at f^1 in the lid F^1.

The bottom tray A^4, as already stated, is fitted to slide as a drawer in the base B and works preferably immediately beneath the fixed tray A on guides or runners b provided in the base. This drawer is actuated simultaneously with the upper trays A^1, A^2, A^3 but in the opposite direction so as to be projected forwards from the base and therefore out from under the fixed tray A when the upper trays are moved rearwards. For this purpose the front levers C^1 are downwardly prolonged as at C^4, their lower extremities being coupled to the sides D^1 of the drawer A^4 by means of links C as indicated.

The base B may be weighted if this be found desirable. The opening movement of the

nest of trays may be brought about either by pushing back one of the upper trays A^1, A^2 or A^3, or by pulling back the top tray A^3 by means of a handle provided for the purpose as at *g*, or by pulling forward the bottom tray A^5 by means of a similar handle (not shown), the converse of either of these operations causing the nest or cabinet to close.

In order partly to conceal the levers C^1, C^2, and partly to assist in steadying the nest laterally as a whole, the sides D of the fixed tray A and upper trays A^1, A^2, A^3 are preferably made double, that is to say with an outer thickness D^2 separated in each case from the main or inner member D of the side by a space or slot *d* whose width only suffices to allow of the levers C^1 C^2 working in it.

It will be obvious that, provided the base B is fixed, or weighted sufficiently to insure the requisite stability, an indefinte number of upper trays may be superposed one upon another, all being actuated by the same levers. Similarly, more than one drawer may be fitted to slide in the base, successive drawers being mounted one beneath another and all being likewise actuated by the same levers through the medium of links or equivalent devices adapted to allow for the angular movement of the levers concurrently with the horizontal sliding movement of the drawers. Obviously each such drawer must have a greater movement than the drawer immediately above it, just as each upper tray must have a greater movement than the tray immediately beneath it, so that the entire series of trays and drawers when open may present a stepped formation.

Claims.

1. A cabinet comprising a stationary base, a series of movable trays having duplex lateral walls, and parallel levers fulcrumed on the base and pivotally connected with each of said trays between the lateral walls thereof.

2. A cabinet comprising a stationary base, a drawer slidably mounted on said base, a series of movable trays located above the base, and a lever fulcrumed on the base and pivtally connected with each of said trays and with said drawer.

3. A cabinet comprising a stationary base, a series of movable trays located above said base, a movable lid secured to the uppermost tray and a lever fulcrumed on the base and pivotally connected with each of said trays, and arranged to engage said lid to open it as the trays are moved from their normal position.

4. A cabinet comprising a stationary base, a series of movable trays located above said base, levers fulrumed on the base at opposite sides thereof and pivotally connected with each of said trays at opposite sides thereof, a drawer slidably mounted on said base and links connecting said drawer with said levers.

5. A cabinet comprising a stationary base, a series of movable trays located above said base, a movable lid secured to the uppermost tray, and levers fulcrumed on said base at opposite sides thereof and pivotally connected with each of said trays, said levers being provided with extensions arranged to engage said lid and open it as the trays are moved from their normal positions.

6. A cabinet comprising a stationary base, a series of movable trays located above said base, a movable lid secured to the uppermost tray and provided with a groove in its lower face, a lever fulcrumed on said base and pivotally connected with each of said trays and provided with an extension arranged to enter said groove to open the lid as the trays are moved from their normal position.

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