

July 12, 1932.

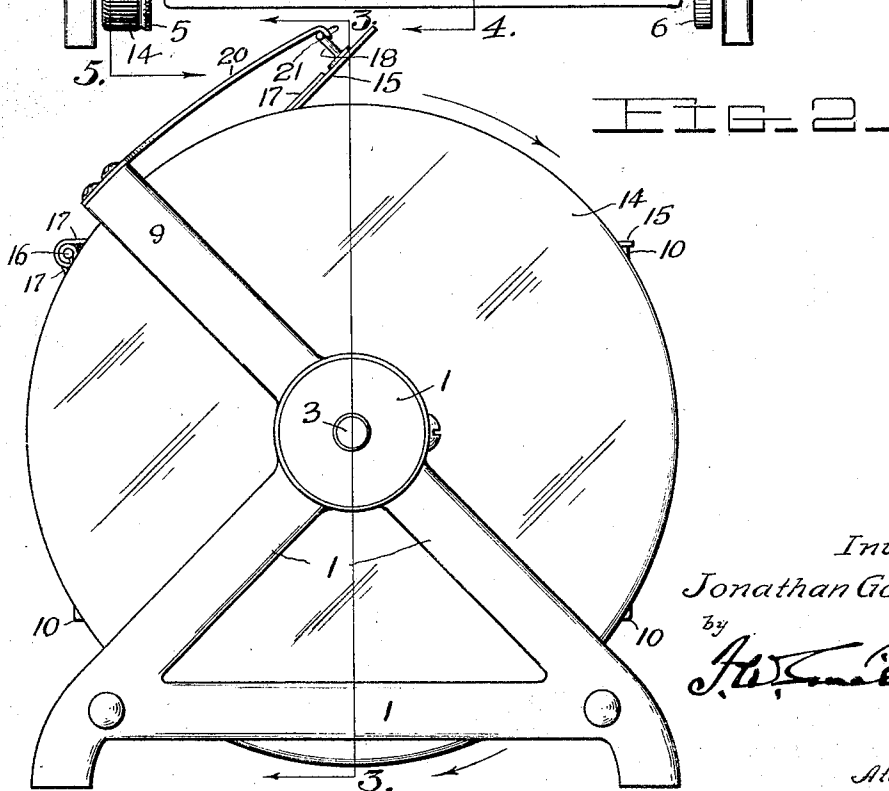
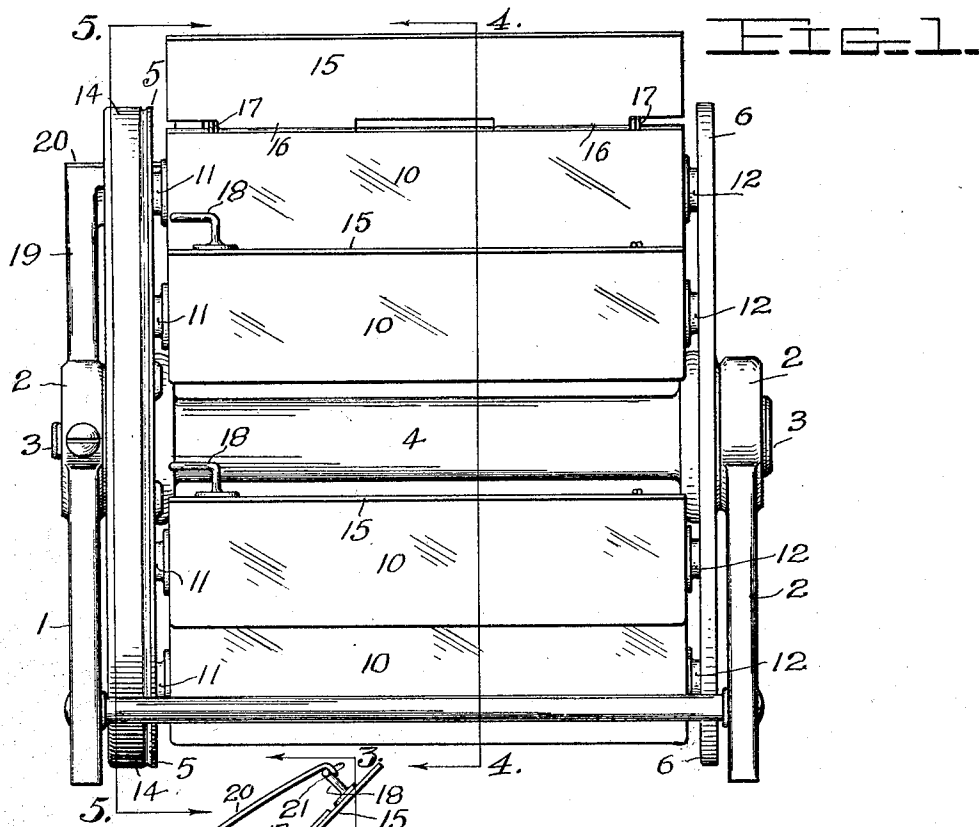
J. GODFREY

1,867,145

ROTARY CABINET

Original Filed April 30, 1930

3 Sheets-Sheet 1



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by *Attorney*

Attorney

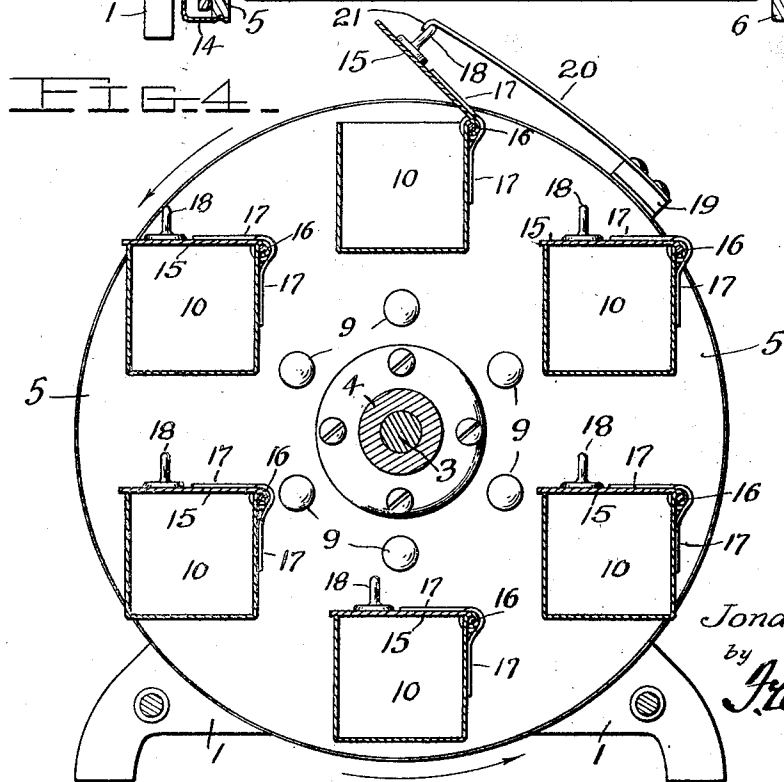
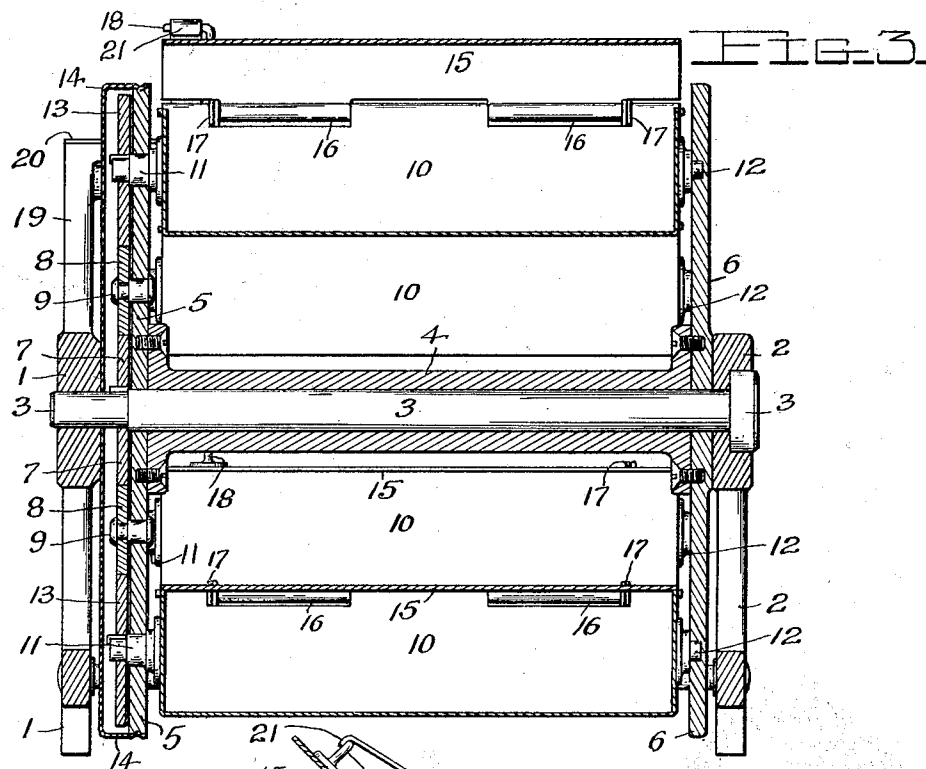
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ROTARY CABINET

Original Filed April 30, 1930 3 Sheets-Sheet 2



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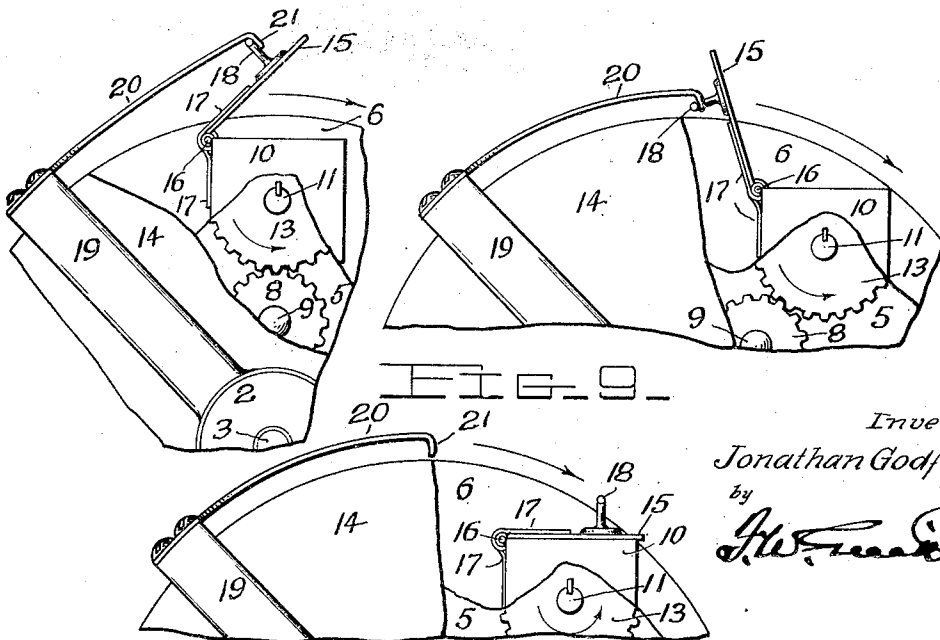
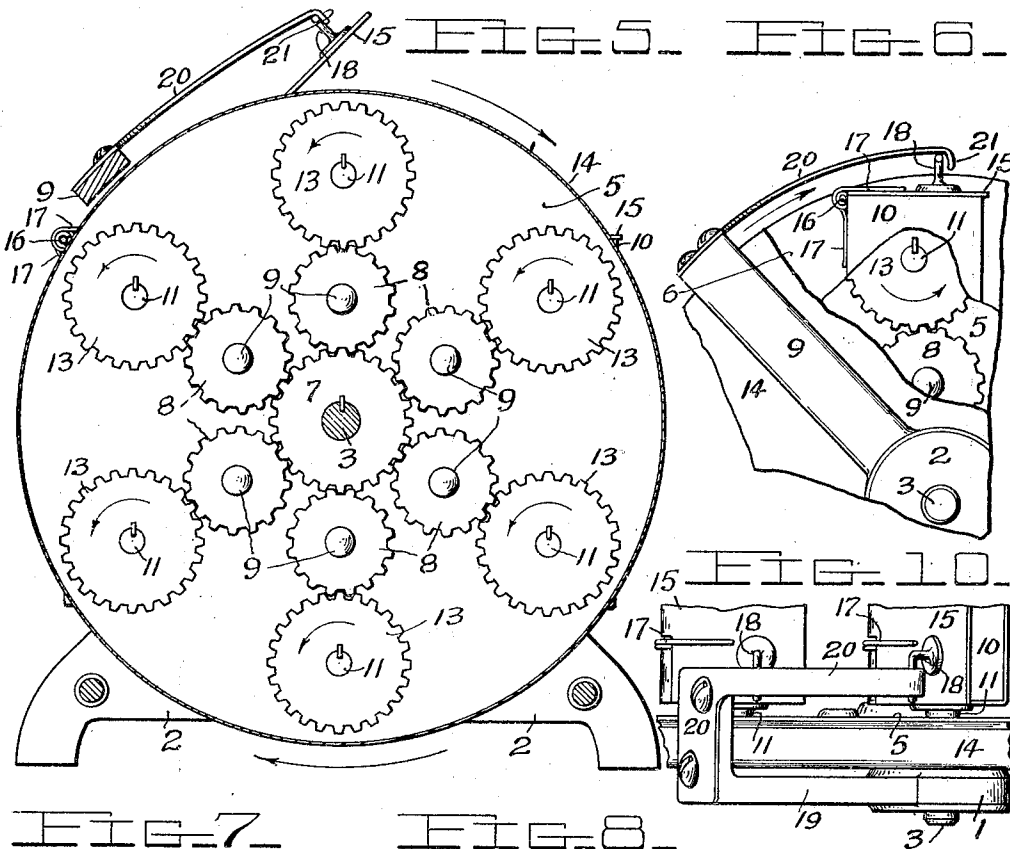
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ROTARY CABINET

Original Filed April 30, 1930 3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

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ROTARY CABINET

Application filed April 30, 1930, Serial No. 448,451. Renewed December 8, 1931.

This invention relates to rotary cabinets, which comprise a plurality of covered boxes or receptacles that are supported between a pair of rotary disks in such a manner that, 5 when such disks are rotated, these boxes or receptacles will always be horizontally disposed, while means is provided for automatically raising the covers of the boxes or receptacles when the latter have reached a 10 location convenient for inspecting or getting at their contents.

In carrying out the invention, I make use of a certain style of gearing which is well known, but I have provided a novel structure to be utilized in connection with this 15 gearing, and in the accompanying drawings, which are to be considered in connection with the description herein, I have shown a preferred embodiment of my invention, and referring to these drawings,

Figure 1 is a front elevation of my improvement,

Figure 2 a side elevation,

Figure 3 a section at the line 3—3 of Figure 1,

Figure 4 a section at the line 4—4 of Figure 1,

Figure 5 a section at the line 5—5 of Figure 1,

Figures 6, 7 and 8 are fragmentary side elevations showing respectively the positions of the associated parts immediately prior to the opening of the covers, when the covers are partway opened and when the covers are 35 fully opened,

Figure 9 is also a fragmentary side elevation illustrating the positions of the several parts immediately after the covers are closed, and

Figure 10 is a fragmentary plan view showing particularly the finger which functions to open the covers.

Similar numerals of reference denote like parts in the several figures of the drawings.

1, 2, are spaced standards, and 3 is a spindle fixed at its ends to said standards, whereby the latter are held in fixed spaced relation.

4 is an elongated sleeve journaled around said spindle and secured at its extremities to disks 5, 6, said disks being loose on the spindle,

so that the sleeve and disks form what will be termed a "rotary spool".

To the spindle 3 is fixed a gear wheel 7 with which a series of pinions 8 is in mesh and these pinions are journaled to the disk 5 55 by means of pins 9.

10 are elongated receptacles or boxes which are in circular disposition between the disks 5 and 6, and 11, 12 are trunnions secured in any suitable manner to the ends of these receptacles, and to the trunnions 11 are keyed gear 60 wheels 13 which are in mesh with the pinions 8, these trunnions 11 and 12 being journaled respectively within the disks 5 and 6, so that it will be clear that the boxes 10 are capable 65 of free swinging movements.

The gear 7 is, of course, stationary and the pinions 8 and outer gears 13 are circularly disposed around the gear 7 and extend radially therefrom, and it will be clear that when 70 the disks are revolved in the direction of the arrow, the outer gears 13 will slowly revolve in a reverse direction.

The boxes 10, as the disks are revolved have a tendency to tilt, but the proportion 75 between the sizes of the gears is such that the boxes will be kept in a horizontal position at all times, due to the slow rotation of the gears 13.

Of course there are many ways of bringing about the proper connections between the receptacles and the gears 13 and the invention is not limited in this respect.

In order to enclose all the gears and to keep 85 dust and other foreign matter therefrom a circular closure 14 loosely assembled around the spindle 3 is secured to the disk 5 in any suitable manner.

The cabinet is intended for use on a desk or table, and the boxes 10 will contain suitable 90 accessories, as paper clips, fasteners, pens, pins, postage stamps, &c., and it is necessary that these boxes should normally be closed, and therefore covers 15 are hinged as at 16 95 to the rear upper edges of these boxes, and suitable springs 17 are confined around the hinged portions 16 and bear against the rear of the boxes and the covers so as to keep the latter closed as will be clearly seen by reference to Figure 4, but this spring adaptation 100

of closing the covers is very ordinary requiring no further description and can be brought about in several ways by the exercise of mere mechanical skill.

18 are hook members secured to the tops of the covers and upstanding therefrom and these members are adjacent the disk 5.

19 is a rigid arm extending from the standard 1 to a plane slightly beyond the periphery of the disk 5, and to the end of this arm is secured a spring finger 20 whose extremity terminates in a claw 21 that overhangs the covers and is in the line of travel of said hooks when the disks are rotated.

At Figure 6 this claw is shown on the point of engaging with one of the hooks, and as the disks revolve the cover will be at first partly opened as seen at Figure 6, and thereafter will be fully opened as seen at Figure 8, in which latter instance the revolution of the disks is stopped so that the contents of the particular receptacle selected may be easily got at, and on the continued revolution of the disks the receptacle will be carried to a plane below that of the claw, and the cover will then be automatically closed, as seen at Figure 9.

It will be clear that the securing of the sleeve to the disks, so as to form a rotary spool, makes a compact structure which revolves as a unit around the stationary spindle and which is preferable over a device in which these rotary parts are tight on a rotary spindle since in the latter instance the central gear, herein termed the stationary gear, must be loose on the spindle and must be held stationary, during the rotation of the cabinet, by special means.

What is claimed is:—

1. A rotary cabinet, comprising spaced standards, a connecting spindle rigidly secured thereto, a rotary sleeve journaled on said spindle, a pair of spaced disks secured to the ends of said sleeve, a central spur gear keyed to said spindle at one end thereof, a series of pinions journaled to one of said disks in circular disposition and meshing with said spur gear, a corresponding series of outer spur gears likewise journaled to said disk and meshing with said pinions, and receptacles between said disks and secured at one end to the shafts of said outer gears and having their other ends pivotally carried by the opposite disk.

2. A rotary cabinet, comprising spaced standards, disks suitably journaled in spaced relation between said standards, a stationary central spur gear rigid with said standards, a series of pinions journaled to one disk in circular disposition and meshing with said gear, a series of outer spur gears journaled to the last mentioned disk in circular disposition and meshing with said pinions, a series of receptacles between said disks and secured at one end to said outer spur gears and

pivotally supported at the other end by the other disk, whereby the rotation of the disks will cause the orbital movements of all of the pinions and outer gears around the stationary gear and will also cause the outer spur gears to revolve on their axes in a direction reverse to that of the revolution of the disks, thereby preserving the horizontal disposition of the receptacles.

3. A rotary cabinet comprising a frame having spaced side pieces, a connecting spindle secured to the latter, a rotary spool journaled on said spindle and having disks secured to each end, a series of rotary spur gears journaled in circular disposition to one disk near the periphery thereof and meshing with a similar series of pinions journaled to said disk in radial disposition with respect to the spur gears, a single spur gear fixed on said spindle and meshing with said pinions, and receptacles respectively secured at one end to said rotary spur gears, the other ends of said receptacles being pivoted within the opposite disk.

4. A construction as in claim 3, with the addition that said receptacles have spring actuated covers which are provided with upstanding hooks, and a spring finger is secured to the side piece adjacent the disk which carries said gears and terminates in a claw which overhangs said covers and is in the line of travel of said hooks when the spool is rotated, whereby said hooks will engage said claw and open the covers while the continued rotation of the spool will release the covers.

5. A rotary cabinet, comprising spaced standards, a spindle whose ends are fixed thereto, an elongated rotary sleeve journaled around said spindle, a pair of disks secured to the ends of said sleeve and rotary therewith, a series of receptacles circularly disposed and having their ends pivoted to said disks, spring closed covers hinged to said receptacles and having upstanding hook-like members near one end of each cover, means for preserving the horizontal disposition of said receptacles during the rotation of the disks, and a resilient finger secured to a stationary part and having a claw at its end which overhangs the receptacles and is in the path of travel of said members when the disks are revolved, whereby said members will engage said hook and cause the covers to be opened.

In testimony whereof I affix my signature hereto.

JONATHAN GODFREY.