

H. J. WAITE.
 ROTARY FILING DEVICE.
 APPLICATION FILED MAY 11, 1917.

Patented Jan. 14, 1919.
 3 SHEETS—SHEET 1.

1,291,296.

Fig. 1.

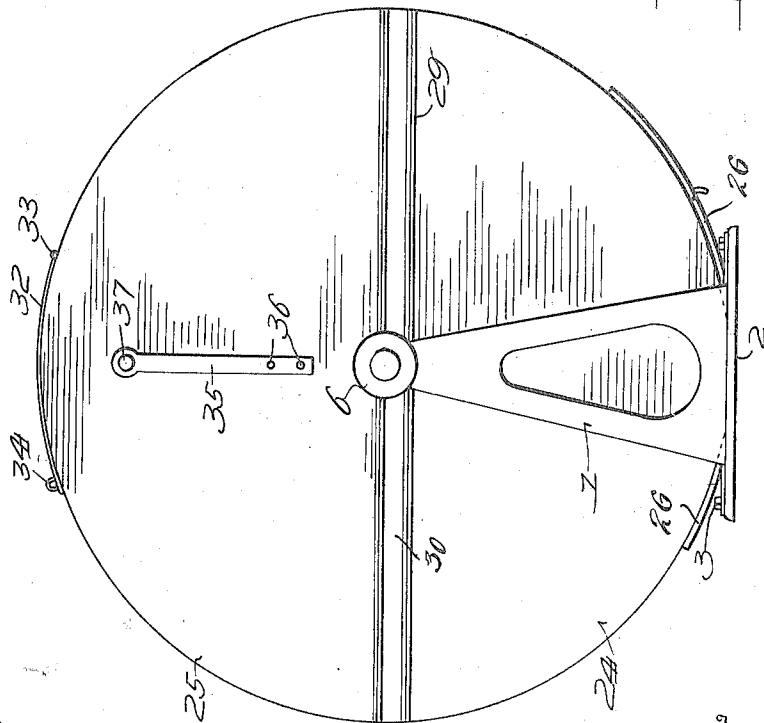
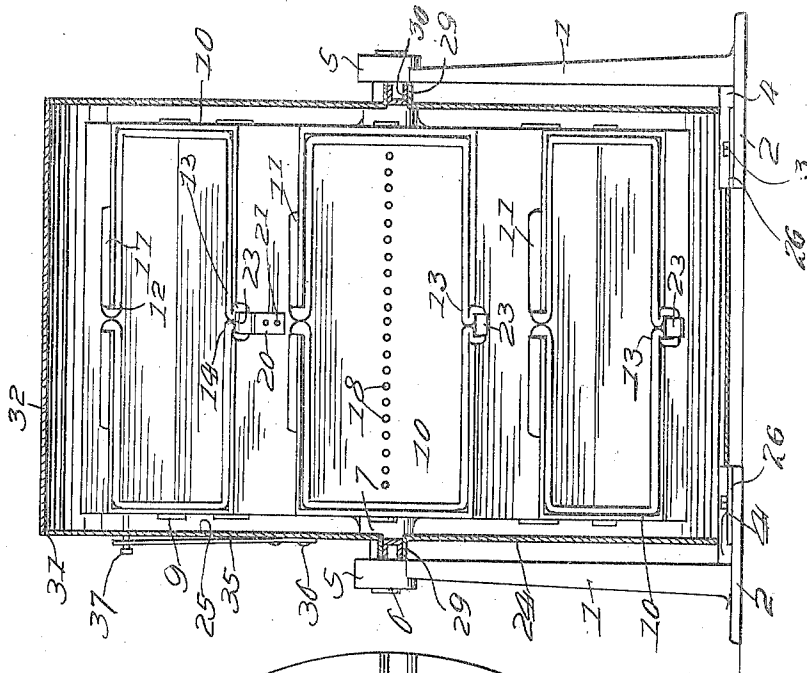


Fig. 3.



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3 SHEETS—SHEET 2.

Fig. 4.

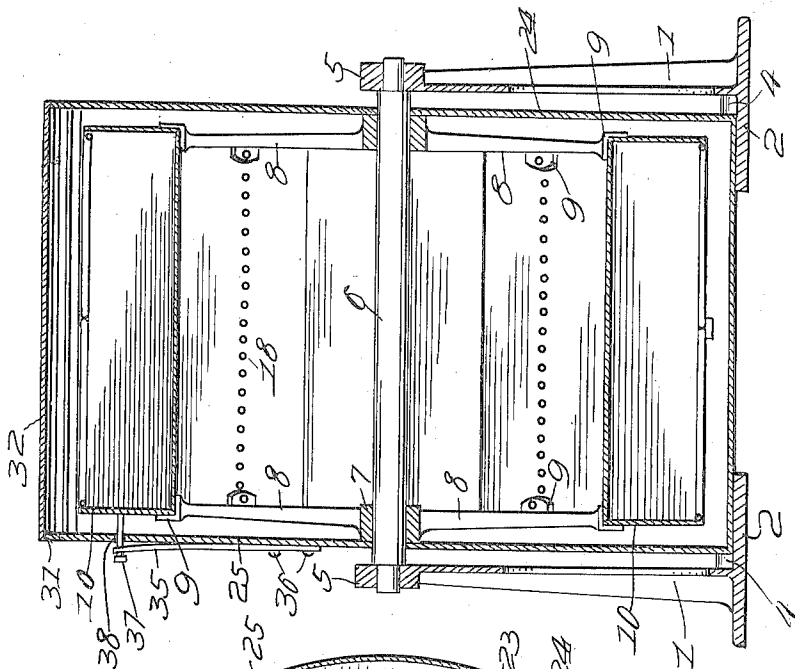
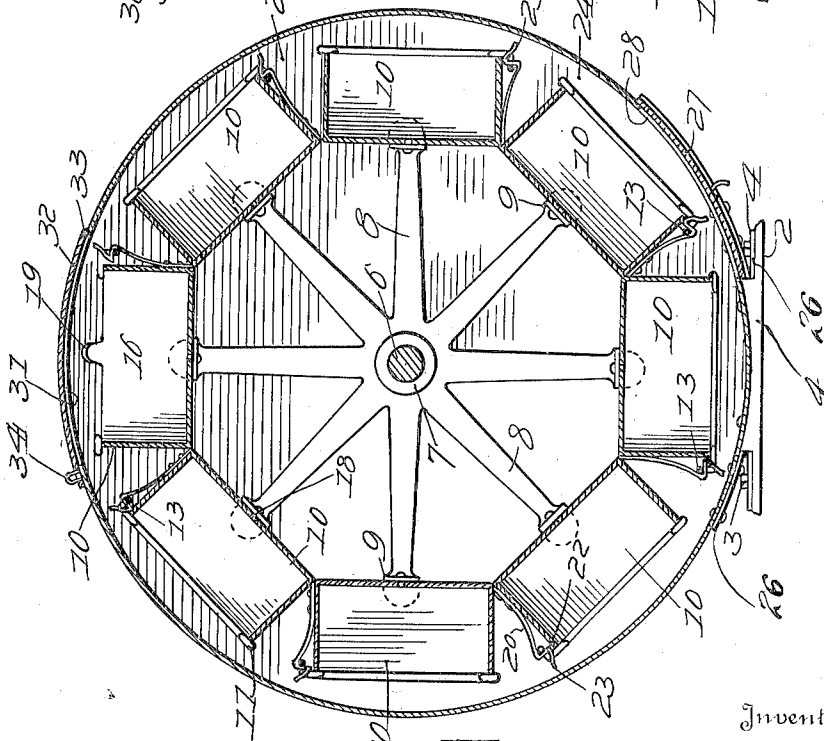


Fig. 2.



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 3 SHEETS—SHEET 3.

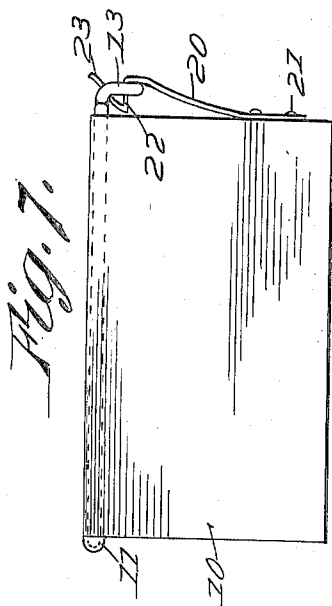


Fig. 7.

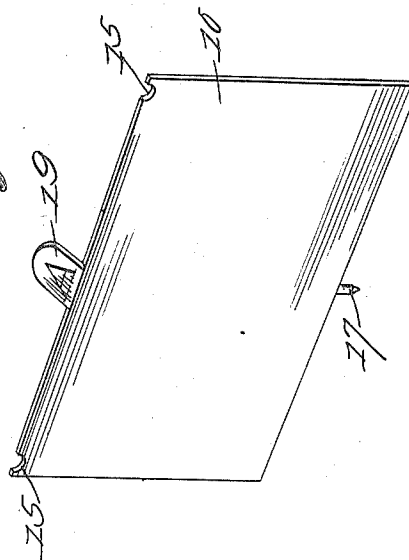


Fig. 8.

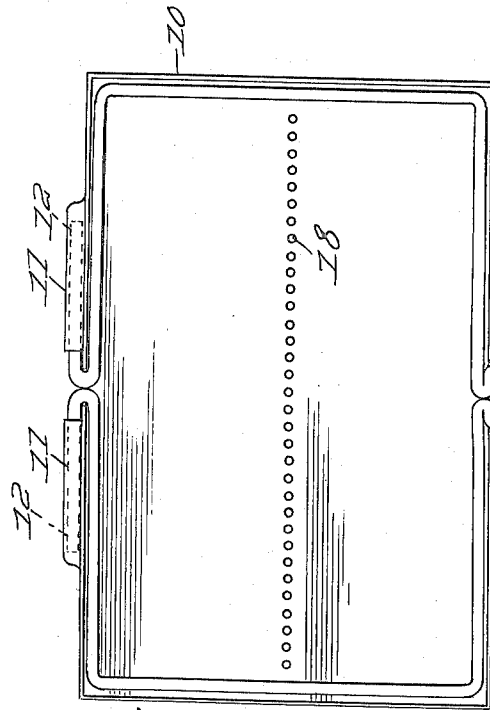


Fig. 5.

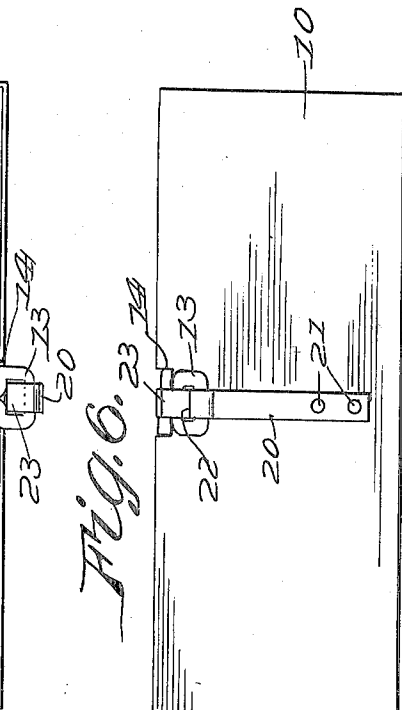


Fig. 6.

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UNITED STATES PATENT OFFICE.

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ROTARY FILING DEVICE.

1,291,296.

Specification of Letters Patent.

Patented Jan. 14, 1919.

Application filed May 11, 1917. Serial No. 167,965.

To all whom it may concern:

Be it known that I, HENRY J. WAITE, citizen of the United States, residing at Port Huron, in the county of St. Clair and State of Michigan, have invented certain useful Improvements in Rotary Filing Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

The present invention has reference generally to improvements in that class of inventions known as paper files and binding and more particularly relates to a rotary filing device.

As the primary aim and object this invention contemplates the provision of novel means for rotatably supporting a plurality of index trays for accommodating cards, letters and other documents so as to assure of the filing of a maximum number of cards, letters, etc., in a minimum space.

It is an additional and equally important object of the present invention to provide novel means for incasing the tray supporting means so as to protect the contents of the trays from dust, the casing being provided with an opening to incidentally permit of access to any one of the trays.

More particularly, this invention consists in the provision of novel stop means mounted on the casing and arranged for frictional engagement with a part of the supporting means so as to consequently maintain any one of the trays in a substantially rigid position beneath the opening in the casing.

The invention as a further improvement embraces the provision of novel means for holding the contents of the trays therein so as to prevent accidental displacement thereof during the actuation of the supporting means.

More specific objects of the present invention reside in the provision of novel means for removably closing the lower portion of the casing to permit of the removal of a card therefrom or to replace one that has become accidentally disengaged from its tray; and to provide improved means for connecting the casing to the main supporting standard.

Among the other aims and objects of the present invention may be recited the provision of a device of the character mentioned with a view to compactness, and in which the number of parts are few, the construction

simple, the cost of production low, and the efficiency high.

Other improvements and novel details in the construction and arrangement of the various parts of the apparatus will be brought out more in detail in the description to follow, which for a clear understanding of the invention, should be considered in connection with the accompanying drawings forming a part hereof, and wherein is disclosed for the purpose of illustration a convenient and satisfactory embodiment of the invention. It is to be noted in this connection that minor changes in the construction and arrangement of the parts may be made without departing from the spirit of the invention or the principle of operation of the various parts.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the invention;

Fig. 2 is a vertical section thereof;

Fig. 3 is a front elevation of the device with the casing removed;

Fig. 4 is a transverse vertical central section of the device;

Fig. 5 is an enlarged plan of one of the trays;

Fig. 6 is a side elevation thereof;

Fig. 7 is an end elevation of one of the trays, and

Fig. 8 is a perspective detail of the index plate.

Similar reference characters are employed in all of the above described views, to indicate corresponding parts.

Referring now, more particularly, to the accompanying drawings there is provided a pair of spaced standards 1 on the lower ends of which and extending inwardly from the inner faces are integral base plates 2 rigidly secured to a suitable main support by suitable fastening devices 3. Receiving and supporting portions 4 are formed integral with the upper surfaces of the base plates for a purpose that will presently appear while the upper ends of the standards terminate in bearings 5 in which are journaled the respective ends of the shaft 6.

As intimated, improved means have been provided for rotatably supporting a plurality of trays in the present instance consisting of a pair of supporting wheels mounted in spaced relation on the shaft 6. Each of the wheels includes a hub 7 from the

periphery of which radiates a plurality of spokes 8 the outer ends of which terminate in right angled brackets 9. A plurality of trays 10 are now provided. Each of these trays is of a rectangular configuration and is removably yet rigidly secured at its respective ends through the medium of suitable fastening devices between opposed brackets 9 on opposite spokes of the wheels. As indicated in the drawings the inner side edges of the several trays are arranged in close relation with each other. At this point of course it is to be understood that the particular shape and size of these trays form no essential point of this invention. The forms shown however are especially adapted for receiving a plurality of index cards (not shown).

In order to retain the index cards within the trays while the wheels are being rotated, the outer side edge of each tray is provided with opposed sleeved bearings 11. A rectangular retaining frame is now provided being formed of a single piece of relatively stiff wire and of a size capable of being arranged in close relation with the inside of the tray. The end portions of the wire meet intermediate one side of the frame while the terminals are bent upon themselves in opposite directions and in close parallel relation with the side as indicated by the numeral 12 and are journaled in the sleeve 11 to permit swinging movement of the retaining frame. The opposite side portion of the retaining frame has a U-shaped portion 13 provided at a point approximately intermediate its ends, said portion being in the form of a substantial hook and is arranged when the frame is in a closed position in a recess 14 in the opposite side edge of the tray, the outer portion being arranged adjacent the outer surface of the same side for a purpose that will presently appear. When in a closed position the opposite portions of the frame are adapted to be arranged adjacent the outer edges of the rectangular index cards (not shown) and are also engaged in the recesses 15 in the outer edge of a rectangular index plate 16. A spur 17 is formed on the inner longitudinal edges of the plate and is adapted for engagement with any one of the openings 18 in the bottom of the tray so that the plate may be arranged in an adjusted position within the tray. A tab 19 extends at an angle from the outer edge of the plate and of course carries a letter or other character or characters used for index purposes. In retaining the frame in a closed position to consequently hold the index plate and the contents of the tray therein, a leaf spring 20 is rigidly mounted on the adjacent side and beneath the recess 14 by means of suitable fastening devices 21. A catch 22 is carried by the outer end of the spring and is arranged to engage the U-

shaped portion 13. A thumb piece 23 is carried by the catch and serves as a means to facilitate the removal of the catch from the U-shaped portion to consequently permit of the raising of the frame and the adjustment of cards and plates within the tray.

With a view toward providing the improved means for inclosing the trays so as to prevent the access of dust and insects thereto, a casing is provided therefor. In the present instance the casing consists of semi-cylindrical sections 24 and 25. Reinforcing strips 26 are rigidly secured on the lower surface of the lower section 24 and are in turn secured to the receiving and supporting sections 4 of the standards. A manually operable slide 27 serves to removably close an opening 28 in the bottom and by this arrangement any cards on accidental disengagement from the tray will fall to the bottom and may be easily removed by actuating the slide 27. Flanges 29 are formed on the adjacent straight edges of the sections 24 and 25 and are removably secured in any suitable manner to the channel spacing sections 30, both of the casing sections of course being constructed so as to fit about the axle 6. The top of the upper section 25 is provided with a transverse opening 31 of a rectangular configuration and of size slightly larger than the size of a tray to consequently permit of access to any one of the trays which may be alined therebeneath. A cover 32 is pivoted as at 33 to one side of the opening, the opposite side being provided with an eye 34 about which is arranged the cover 32 when in a closed position. Of course suitable means may be employed to cooperate with the eye in locking the cover.

For the purpose of removably holding any one of the trays 10 beneath the opening 31 suitable stop means have been provided. In reducing this feature of the invention to practice a leaf spring 35 is rigidly secured at one outer face of the casing by means of suitable fastening devices 36. A stop plug 37 is carried by the outer end of the spring and is normally arranged through a suitable opening 38 in the side of the casing and in frictional engagement with the end of one of the trays 10. This normally holds one of the trays rigid beneath the opening and in order to move another tray beneath the opening it is first necessary to engage the spring 35 so as to hold the stop plug out of frictional engagement with the tray whereupon by pushing the tray another may be alined with the opening 31 and when this occurs it is only necessary to release the spring 35 to allow the stop plug to maintain the tray beneath the opening.

In use, assuming that it is desired to look up some cards in some of the trays, the spring 35 is pulled so as to relieve the fric-

tional engagement between the plug 37 and one of the trays whereupon the tray that is against the opening is removed so as to rotate the wheel and consequently allow the arranging of the desired tray beneath the opening 31 whereupon the spring is released so that the stop plug will frictionally engage the end of the desired tray 10. The thumbpiece 23 is now pushed to one side to consequently permit of the disengaging of the U-shaped portion 13 therefrom so that the retaining frame may be swung into an open position. Of course the cards that are adapted to be arranged within the tray may be adjusted. Likewise the index plate may be properly adjusted in the opening 18. In replacing the retaining frame it is only necessary to close it and owing to the arrangement of the spring catch it will automatically be held in a closed position. The wheels may be subsequently rotated in a similar manner to permit of the arranging of another of the trays in the opening. It will be understood that during this movement that the retaining frame prevents accidental displacement of the cards. Should any of the cards fall into the casing it will slide to the bottom thereof where it can be readily removed by operating the slide 27.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limited sense. It is also to be understood that the language used in the following claims is intended to cover all the generic and specific features of the invention herein described and all statements of the scope of the invention, which, as a matter of language might be said to fall therebetween.

Having thus fully described this invention, what is claimed as new and desired to be secured by Letters-Patent, is:—

1. A device of the character described including a pair of rigidly mounted standards, a shaft journaled therethrough, spaced wheels mounted on the shaft including a plurality of radiating spokes, the spokes of one wheel being disposed opposite to the spokes of the other wheel, a plurality of trays each of which is rigidly secured between the opposed spokes, a casing for

inclosing the shaft, wheels and trays and formed in two semi-cylindrical sections, the upper section being provided with an opening with which any one of the trays may be alined, a cover for removably closing the opening, and a resiliently mounted stop on the upper casing arranged for frictional engagement with any one of the trays to hold such tray in alinement with the opening in the cover.

2. A device of the character described including a pair of rigidly mounted standards, a shaft journaled therethrough, spaced wheels mounted on the shaft including a plurality of radiating spokes, the spokes of one wheel being disposed opposite to the spokes of the other wheel, a plurality of trays each of which is rigidly secured between the opposed spokes, a casing for inclosing the shaft, wheels, and trays and formed in two semi-cylindrical sections, the upper section being provided with an opening with which any one of the trays may be alined, a cover for removably closing the opening, supporting portions formed on the standards, reinforcing strips on the lower section and secured to the supporting portions, the lower section being also provided with an opening, a slide for removably closing the opening, and a stop resiliently mounted on the upper section of the casing and engageable with any one of the trays for holding such tray in alinement with the opening in the upper section of the casing.

3. A device of the character described including a casing having an opening in the top thereof, a cover for removably closing the opening, a plurality of card receiving trays, rotatably mounted means for supporting the trays within the casing so that any one of the trays may be arranged in alinement with the opening, means for removably holding any one of the trays in alinement with the opening, an open rectangular retaining frame pivotally mounted at the outer edge of each tray and having its side and end portions lying within the sides and ends of the tray, a U-shaped finger engaging portion formed on the outer side portion of each frame, and a catch carried by each tray for engagement with the adjacent U-shaped portion of the frame for removably holding the frame in a closed position to consequently prevent accidental displacement of the contents of the trays during rotation of the supporting means.

In testimony whereof I affix my signature.
HENRY J. WAITE.