

March 31, 1925.

M. A. THOMPSON ET AL

1,531,358

TIME FILE

Filed April 16, 1924

Fig. 1.

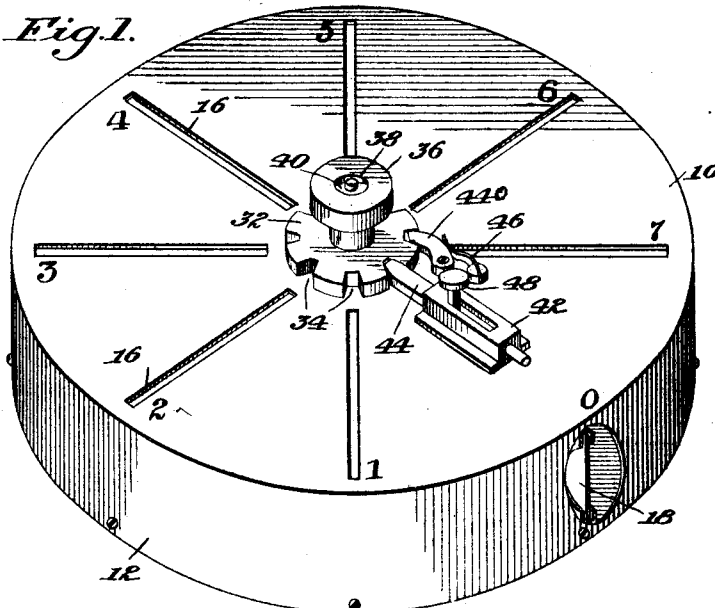


Fig. 2.

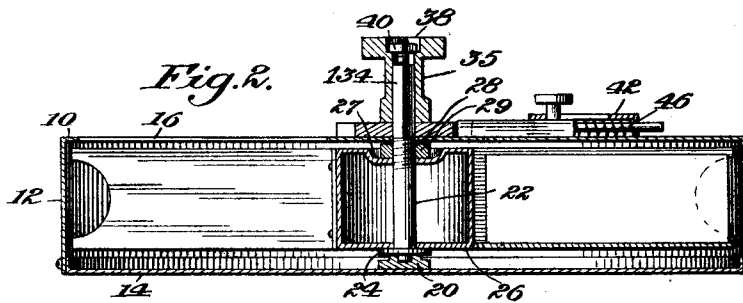
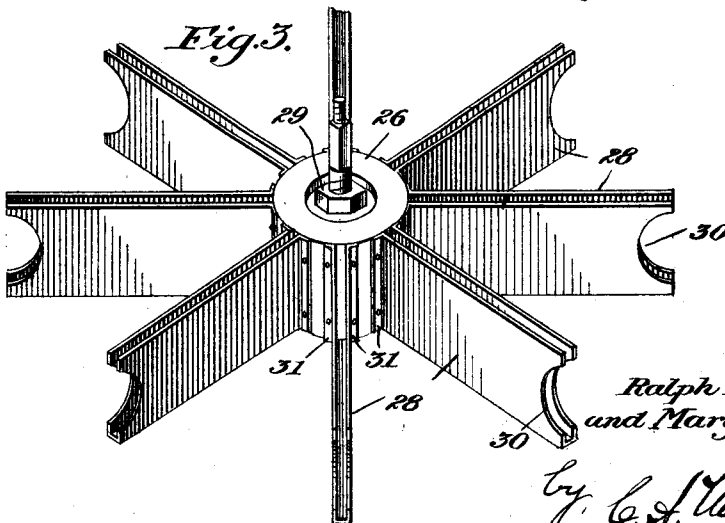


Fig. 3.



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by *C. F. Mason, Atty.*

UNITED STATES PATENT OFFICE.

MARY ALICE THOMPSON AND RALPH P. THOMPSON, OF PRINCESS ANNE, MARYLAND.

TIME FILE.

Application filed April 16, 1924. Serial No. 707,012.

To all whom it may concern:

Be it known that we, MARY ALICE THOMPSON and RALPH P. THOMPSON, citizens of the United States of America, residing at Princess Anne, in the county of Somerset and State of Maryland, have invented certain new and useful Improvements in Time Files, of which the following is a full, clear, and exact description.

10 This invention relates to filing devices, and especially to apparatus for filing memoranda that is to be brought to the attention at some future time. More particularly, the apparatus may be denominated as a time file
15 from the fact that through its operation the filed memoranda are brought forth and rendered accessible at a predetermined time, automatically, and without any mental effort or the necessity of making a search of the
20 files.

A very important object of the invention is to provide a mechanical device of the character referred to which may be considered as functioning auxiliary to the memory to
25 such an extent that said device renders it entirely unnecessary for the memory to recall the time when any particular paper is to be consulted, or, in other words, the invention accomplishes by mechanical means what
30 would otherwise devolve upon the memory. Viewed from a different aspect, the invention has for its object to provide a filing system that saves mental effort, conserves energy, eliminates worry, and may be extended
35 to many uses.

With a view to the accomplishment of the above and other important objects the invention comprises a manually operable device provided with a plurality of file holders,
40 separated at intervals, a single point of discharge for the contents of said file holders, and a system of numerals by means of which the contents of the several file holders may be brought each at a predetermined
45 time to the point of discharge. By the means described, a paper may be deposited in one of the file holding devices with the object of having the paper brought to the attention of the operator at a predetermined
50 time in the future, as, for example, six days from the time that it is deposited. By manipulation of the apparatus, step by step, at stated intervals, the paper so deposited will be automatically brought to the point of discharge,
55 and may be extracted on the date for

which it was desired to be consulted at the time the paper was filed.

A simplified embodiment of the invention illustrated in the accompanying drawings, which form a part of this specification, and
60 in which:

Fig. 1 is a perspective view;

Fig. 2 is a transverse sectional view, and

Fig. 3 is a perspective view of the filing elements, the outside casing being removed.
65

The device, as illustrated, comprises an enclosing casing of circular form having a top 10, a side 12, and a bottom 14. The top of the casing is provided with a plurality of radial slits or openings 16 which constitute
70 the openings through which the papers are inserted as they are filed in the compartments of the movable filing device enclosed within the casing. The side 12 of the casing is provided with a discharge opening 18,
75 which may be of circular form and is of a size sufficient to enable the thumb and finger of the operator to be inserted for extracting the papers as they are successively brought
80 into position opposite such discharge opening.

The inlet openings 16 are as shown numbered consecutively from 1 to 7 inclusive around the cover of the casing, in a clockwise direction. Such openings are spaced
85 equal distances apart, from 1 to 7, but the space separating the opening marked 7 and the opening marked 1 is twice as great as the space separating any other two adjacent
90 openings, and at a point half way between the openings 1 and 7 the discharge opening 18 is located, the point of such discharge being indicated by zero.

A step 20 is secured centrally within the casing to the bottom 14 thereof, and seated in a suitable bearing in this step is a shaft
95 22. This shaft is provided with a flange 24 and the shaft extends centrally through a hollow drum 26 which is supported upon the flange, and is provided at the top with a
100 recess 27. The shaft 22 is provided with a screw thread 28 which is engaged by a clamping nut 29 for firmly seating the drum against the flange 24. The file holders 28,
105 in any number predetermined, consist each of parallel side members open at the top, and open discharge ends, which latter are preferably curved as shown at 30 for exposing the outer ends of the cards or memoranda,
110 in order that the same may be grasped

between the finger and thumb and removed from the discharge opening 18. Each file holder is preferably provided with oppositely extending flanges 31 at its inner end to permit attachment to the hub 26. The file holders are projected radially from the hub, as shown, in the manner of the spokes of a wheel, and the distance between any two adjacent holders corresponds to the distance between any two of the slits or openings 16 in the top 10 of the casing. The shaft 22 extends upwardly through the top of the case and at this point is formed rectangular to cross section. A disc 32 is provided with a rectangular opening which fits the rectangular portion 134 of the shaft, said disc being provided with a plurality of radial notches 34, which agree in number with the numerals arranged about the top 10 of the casing and are spaced apart distances which correspond radially with the spaces between the slots 16, there being a notch 32 for each of said slots and an additional notch to correspond with the discharge opening 0. A knob 36, provided with a shank 35 has an opening to fit over the shaft 22 above the disc 32, the extreme upper end 38 of the shaft being reduced and threaded to receive a nut 40 which serves to retain the knob and disc in position.

Mounted on the cover 10 at a point preferably between the slotted openings 1 and 7 is a casing 42 which receives a sliding bolt 44, which is normally urged forward by a spring 46 in a direction to enter one of the notches 34 in the disc, thus maintaining the file holders as a unit in any one of the several positions in which it may be located during the operation of the device. The bolt is operated by a suitable handle, 48, the stem of which is guided in a slot in the casing 42. A pawl 440 is pivoted to the casing 10 and a spring 46 acting thereon holds the pawl in any one of the notches 34 to prevent reverse movement of the disc and hence of the file holders. The movement of the file holders is reversely to that of the arrangement of the numerals applied to the slots 16, or contra clock-wise, and such movement is effected in the device herein illustrated by turning the knob 36, the bolt 44 through its handle 48 being first withdrawn from engagement with one of the notches 34 to permit such rotation, the pawl 440 at all times preventing rotation of the disc and file holder in an opposite direction.

Referring to Fig. 1, with the parts positioned as therein shown, the series of file holders will be positioned in alignment with the slots 16, one of said holders occupying the space between the slots 1 and 7 with its outer end opposite the discharge opening 18 in the casing. The numerals on the cover being arranged in clock-wise order and the direction of travel of the file holders when

moved rotatively being in the opposite direction will cause each holder to start at the highest number and approach the zero position by traveling from a loading position of a higher number to a loading position of the next lower number, at every indexed movement of the knob 35. This feature is of the essence of invention, as the time unit of operation which is the average interval between movements from one loading position to the next, when multiplied by the number of the loading position at which any certain filing was made will equal the time of repose of the memorandum until it is presented for withdrawal at the discharge opening 18.

The practical operation of this time file is accordingly as follows:

Assuming that a daily withdrawal of the memoranda is desired, the knob 36 would be turned sufficient to move the file holder a distance corresponding to one space between notches 34 every day as a matter of routine. The interval of a day would then become a unit of operation.

The first act in the operation of the time file would be to predetermine the future time at which any particular memorandum is to be inspected, as for example, we will say that a memorandum deposited in the time file is desired to be seen five days hence. This memorandum is deposited in the holder through the slot 16 which is indicated by the numeral 5. On the next day after the memorandum is deposited the knob 36 is turned one notch in a contra clock-wise direction. Possibly on this date a memorandum will be written that is desired for inspection four days hence, and if so, it will be filed in the slot indicated by the numeral 4. As the holder 28 that was arranged under the slot marked 5 yesterday is under the slot marked 4 today there will now be two memoranda in the same holder 28. At the second movement of the knob 36 these memoranda will reach the loading position 3, at the third movement they will reach position 2, on the fourth day position 1, and on the fifth day or at the predetermined time for the discharge of both memoranda, they will reach the zero position and may be withdrawn from the opening 18.

The physical characteristics of the device consist of file holders made to move in an endless path along which periods of rest are marked, a position of rest at which the contents of the files are drawn, and numerals arranged consecutively to denote the positions of rest of the files at which filing may be done, the numerals being arranged in reverse order to the direction of travel of the files.

It will accordingly be obvious that the invention is not confined to the simple form of the device shown, as other arrangements of parts which embody the elements referred

to could be made for performing the same operations, without departing from the principles of the invention.

I claim:

5 1. In a filing device, a stationary member provided with a series of equally spaced inlet openings, a file holder adapted to travel in a path in one direction and to be brought successively in receiving positions relatively
10 to said openings, identifying means for the successive positions of filing along the path at which the holder travels, and a discharge opening for the file records, the file holder being constrained for movement in a reverse
15 direction to that in which the several filing positions are numbered.

2. In a filing device, a series of movable file holders spaced at even distances from each other and supported for movement in
20 an endless path, stationary numbered positions along said path at which said file holders are brought successively to a state of rest, the numbers of said stationary positions being arranged in inverse order to the direction of travel of said file holders, thereby
25 causing each file holder to pass successively from a position of higher number to that of a lower number, means affording access to each file holder at each numbered position
30 for the purpose of depositing the articles to be filed, a common discharge for the file holder located at the zero position of said stationary numbered positions, and manual means for moving said file holders.

35 3. In a filing device, the combination of a casing provided with a series of spaced inlet openings which are numbered consecutively, a discharge opening in said casing located mid-way between two of said adjacent
40 openings, a plurality of file holders supported for rotation within said casing and spaced apart distances equal to the spaces between the first-named openings and arranged to be brought successively in receiving
45 positions relatively to said openings, and the discharge opening and each adjacent inlet opening, and means to constrain the rotation of said file holders to a direction reverse to that in which said first-named openings
50 are numbered.

4. In a filing device, a casing having a plurality of inlet openings which are numbered consecutively in a given direction cir-

cumferentially of said casing, and a discharge opening in said casing positioned an
55 equal distance from each adjacent inlet opening, a rotatively supported means having a plurality of file holders spaced apart distances corresponding to the spaces between the inlet openings of the casing, means
60 for retaining said devices in successive positions of rest with the file holders in register with said inlet openings, and means for constraining the rotation of said holders to a direction reverse to that in which the numer-
65 als denoting said inlet openings are consecutively arranged.

5. In a filing device, the combination of a structure containing a radial series of slots
70 constituting inlet openings and an opening in its side wall constituting a discharge opening, said discharge and inlet openings being numbered consecutively, of a series of traveling receptacles adapted to pass and re-
75 pass said numbers in a direction opposite to the numerical order of said members, means for retaining said receptacles in successive positions of rest in register with said inlet openings, and a manually operated mechanism adapted to permit motion to be applied
80 to said traveling receptacles in one direction to thereby cause the said receptacles to pass from one number to a lower number at each complete operation of said mechanism, and
85 a common discharge opening for said traveling receptacles indicated by the zero position of said numbers.

6. In a filing device, a stationary member adapted to support a series of movable
90 file holders, a series of movable file holders adapted to travel in an endless path, marked positions along said path at which said movable holders are brought to rest, means of withdrawal for the contents of the movable
95 holders occurring at one of the said rest positions, means of access for the depositing of the articles to be filed at all other marked positions, and a mechanical means of moving the file holders successively from one
100 marked position to the next in their travel in the endless path.

In testimony whereof they have hereunto set their hands this 12th day of April, A. D. 1924.

MARY ALICE THOMPSON.
RALPH P. THOMPSON.