F. H. HOBERG.

PAPER HOLDER.

APPLICATION FILED FEB. 21, 1914.

1,176,142. Patented Mar. 21, 1916.

Fig. 1.

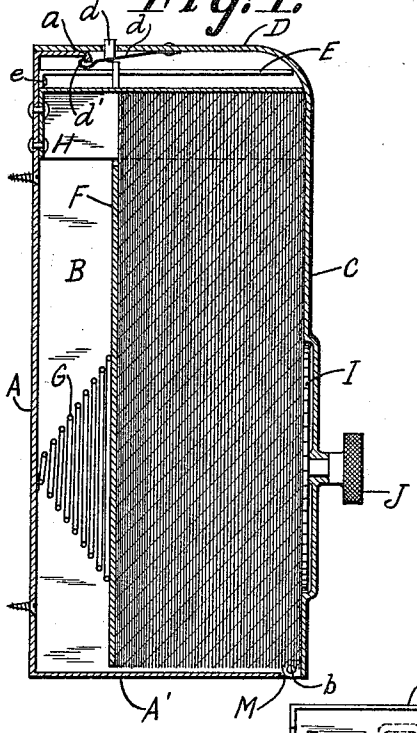


Fig. 2.

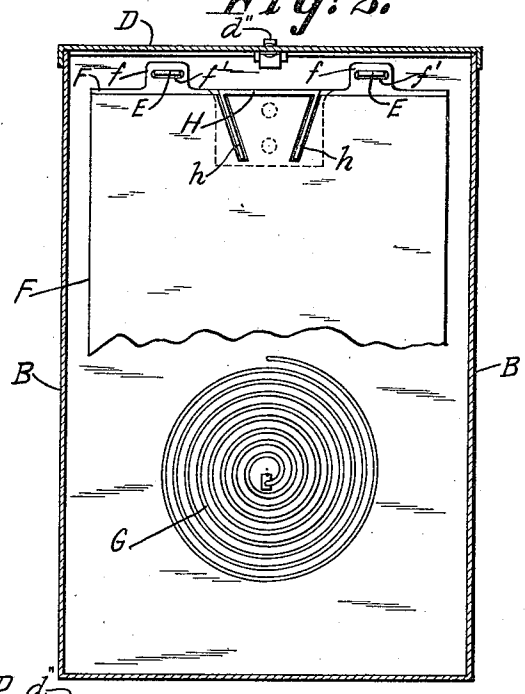
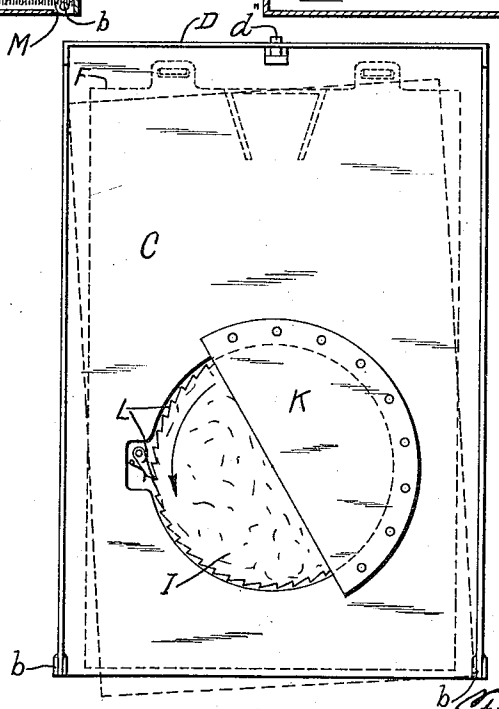


Fig. 3.



Witnesses

F. A. Otto

I. D. Bremer.

Inventor

Frank H. Hoberg

By Erwin G. Wheeler

Attorneys

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK H. HOBERG, OF GREEN BAY, WISCONSIN.

PAPER-HOLDER.

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To all whom it may concern:

Be it known that I, FRANK H. HOBERG, a citizen of the United States, residing at Green Bay, county of Brown, and State of Wisconsin, have invented new and useful Improvements in Paper-Holders, of which the following is a specification.

My invention relates to improvements in paper holders.

The object of my invention is to provide an improved holder adapted to feed the paper in single sheets from a package, and in which a reliable feed may be secured by employing a sheet starter which will depress one corner of the sheet and expose it sufficiently to be grasped before tearing it from the package.

In an application bearing even date herewith I have shown and described a form of package peculiarly adapted for use in connection with the holder herein described, and one object of the present invention is to provide a form of holder for feeding sheets from such package.

In the drawings Figure 1 is a central vertical sectional view of a holder embodying my invention. Fig. 2 is a front elevation with the cap plate and feeder removed. Fig. 3 is a detail view of the swinging cap portion and with dotted lines indicating the relation of the package thereto.

Like parts are identified by the same reference characters throughout the several views.

A is a wall plate provided with a base A′ and sides B.

A cap plate is employed which comprises a front wall C and top wall D. The cap plate is hinged to the respective side walls B at *b*. A resilient hook latch *d* is secured to the top D of the cap plate on the under side thereof, and the hook *d′* is adapted to engage a fixed catch *a*, connected with the back plate A. A push button *d″* may be employed for releasing the latch *d*.

Within the cabinet formed by the back and bottom walls, side walls and cap plate, a set of posts E are mounted and connected with the back plate at *e*. These posts are located near the top of the cabinet and project forwardly into proximity with the front wall C. A hanger plate F is provided with slotted ears *f* at its upper end, the slots *f′* being adapted to receive the posts E, the plate F being thus suspended from the posts. A spiral spring G is interposed between the plate F and the wall plate A, said spring being preferably located below the center of the cabinet.

The plate A is provided with an arm H projecting forwardly from its upper central portion through an opening in plate F and having angularly inturned depending flanges *h* at each side margin, which flanges are adapted to enter slots or slits in the paper package, whereby the package may be connected with the arm H by a dove tail joint, each sheet in the package being supported wholly by the portion thereof which is engaged between the flanges *h* of the arm H. The package will of course be inserted in the cabinet when the cap plate is swung to open position.

Upon the inner face of the cap plate and preferably countersunk in the wall thereof, I provide a circular disk feeder I, the inner surface of which is roughened so as to actuate a sheet of paper in frictional contact therewith when the disk is rotated. This disk is connected with an exterior knob J and its inner face is partially covered by a shield K. The shield covers the disk on the upwardly moving side and preferably also covers part of the top portion of the disk. For convenience, a semi-circular shield may be employed which is adapted to cover substantially one-half of the disk, and by adjusting this shield so that its straight margin extends diagonally across the center of the inner face of the disk from the bottom on the upwardly moving side to the top on the descending side of a vertical line which cuts the disk axis, I am enabled to provide a feeding disk which will bear frictionally upon the paper sheet in a manner to draw such sheet downwardly and laterally when the disk is rotated in the direction indicated by the arrow in Fig. 3. Pawl and ratchet mechanism at L prevent rotation in the opposite direction.

In use, the cap plate is swung to open position, and a package of paper is applied to the hanger plate F, the latter being pushed backwardly upon the hanger arms or posts E, and the spring G being compressed until the paper package is wholly received within the cabinet. The cap plate is then closed, latch *d* automatically engaging catch *a* to hold the cap plate in closed position. By rotating the knob J to turn the disk in the direction indicated by the arrow in Fig. 3, the front sheet of the package will be fed

downwardly through the slot M between the lower margin of the cap plate and the bottom a' of the cabinet. Owing to the fact that the lower portion of the disk I draws laterally upon the sheet, it is obvious that the sheet will be tilted substantially as indicated by dotted lines in Fig. 3, so that one corner will be exposed through the slot where it can be grasped. In this manner I avoid the difficulty heretofore experienced with friction feed mechanism where the frictional feeding device fails to grip the paper with sufficient force to tear it from the package, for in my improved construction the sheet can be grasped and the operation of the feeding disk assisted by pulling upon the sheet before it has been detached. It requires but very little friction to depress one corner of the sheet sufficiently for this purpose where the sheets are suspended from the center only or where they are not suspended or attached at the upper corner directly above the corner which is to be depressed by the feeder.

I claim—

1. A paper feeding cabinet comprising a set of inclosing walls, interior package supporting members connected with said walls, a hanger plate suspended from said supporting members and freely movable thereon to the front or rear, means for resiliently pressing said hanger plate forwardly, means for suspending a package of paper along the face of said hanger plate, and a rotary friction disk mounted in the cabinet in position for flat surfaced contact with the paper which is pressed against it by said spring, together with means for rotating said disk in one direction from the exterior of the cabinet, said cabinet having a slot in its bottom below said disk.

2. A paper feeding cabinet comprising a set of inclosing walls, a hanger plate suspended within the cabinet and adapted to move to the front and rear therein, means for resiliently pressing said hanger plate forwardly, means for suspending a package of paper along the face of said hanger plate, and a rotary friction disk mounted in the cabinet in position for flat surfaced contact with the paper which is pressed against it by said spring, together with means for rotating said disk in one direction from the exterior of the cabinet, said cabinet having a slot in its bottom below said disk, and said cabinet being provided with a shield interposed between the paper and the disk on the upwardly moving side of the latter.

3. A paper feeding cabinet comprising a set of inclosing walls, means for suspending a package of paper from one of said walls, a rotary friction disk mounted in the cabinet in position for flat surfaced contact with the paper, a spring arranged to press the paper against the flat surface of the disk at one side of its center, together with means for rotating said disk in one direction from the exterior of the cabinet, said cabinet having a slot in its bottom below said disk, and said sabinet being provided with a shield interposed between the paper and the disk on the upwardly moving side of the latter.

4. A paper feeding member for paper cabinets, including a rotary disk having one of its side faces disposed for contact with sheets of paper in the cabinet, in combination with a shield covering a portion of said disk face and adapted to prevent the paper from contacting with the covered portion of the disk face.

5. A paper feeding member for paper cabinets, comprising a rotary disk having a frictional surface for contact with the paper on its downwardly moving side, in combination with a shield adapted to protect said disk from contact with the paper on its upwardly moving side, and a device for supporting a package of paper in operative relation to said disk, said device being provided with a forwardly projecting arm having depending angularly inturned flanges adapted to engage a dove tailed portion of such package, whereby said package may be supported in a position for the successive removal of single sheets by disk rotation upon its front face.

6. A paper feeding member for paper cabinets, comprising a rotary disk having a frictional surface for contact with the paper on its downwardly moving side, in combination with a shield adapted to protect said disk from contact with the paper on its upwardly moving side, and a device for supporting a package of paper in operative relation to said disk, said device being provided with a forwardly projecting arm having depending angularly inturned flanges adapted to engage a dove tailed portion of such package, whereby said package may be supported in a position for the successive removal of single sheets by disk rotation upon its front face, together with an inclosing cabinet provided with a slot for the discharge of the sheets and having a spiral spring in its rear portion adapted to press the hanger plate and package in the direction of said disk.

7. In a machine of the class described, an article support, and means for turning the article on said support to displace it therefrom.

8. In a machine of the class described, a casing having an outlet, an article support therein, and article dispensing means within said casing adapted to engage articles upon said support and advance the same through said outlet opening by a turning movement.

9. In a machine of the class described, an article support and means for advancing ar-

ticles from said support by forcing a corner of an article from the support, said means contacting with an article on said support near one end of the article.

10. In a machine of the class described, a casing having an outlet, a support for articles to be dispensed, and means for advancing a corner of an article from the support through said opening, said means being arranged to contact with the article to be advanced at one side of the center thereof.

11. In a machine of the class described, an article support and means for swinging the article on the support so that one corner thereof is forced off said support.

12. In a machine of the class described, a casing having an outlet, a support for articles to be dispensed, and means for swinging one article at a time on said support whereby a corner of the article is forced off the support through said opening.

13. In a machine of the class described, an article support, revoluble dispensing means in contact with one of the articles on said support, and means for actuating said dispensing means whereby a corner of the article in contact with the means is forced on said support.

14. A cabinet for rectangular paper packages, including the combination with the walls of the cabinet, of a set of over-head supports near the top of the cabinet, a back plate suspended from the said supports with its sides parallel to the side walls of the cabinet, and adapted to slide along said supports toward the front or rear of the cabinet, a spring interposed between the back wall of the cabinet and said back plate, and a package supporting arm projecting from the rear wall of the cabinet, and provided with downwardly and inwardly inclined flanges; said supporting arm extending across the central portion of the upper end of the back plate and said flanges being adapted to engage in angular slots formed in the central portion of the upper end of a package of paper conforming substantially to the contour of said back plate, said flanges being smooth surfaced and adapted to permit a forwardly shifting movement of the portion of the package engaged thereby.

15. A cabinet for paper packages, including the combination with the cabinet walls, of a movable spring actuated back plate having sliding connection with the cabinet, and a package supporting arm projecting from the rear wall of the cabinet, and provided with downwardly and inwardly inclined flanges, extending across the upper portion of the cabinet from the rear toward the front, said flanges being formed with smooth surfaces adapted to permit the portion of a package engaged thereby to slide freely along such surfaces, and means for discharging sheets from packages having dove-tailed portions engaged between said flanges; said discharging means being adapted to exert frictional torsion upon the sheets, whereby one lower corner is depressed below the other when detaching the sheet from said supporting arm, substantially as described.

16. A paper holding cabinet, a spring actuated back plate therein having sliding connection with the cabinet near each upper corner, and an intermediate package suspending means projecting across the upper margin of the back plate, and having downwardly and inwardly inclined, and interiorly smooth surfaced flanges adapted to engage a series of otherwise loose and unconnected sheets, each having slots in the central portions of their upper margins adapted to receive said flanges, whereby the sheets may be torn from the package successively by disengaging the dove-tailed portions thereof from the flanges of the supporting arm without leaving a stub.

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

FRANK H. HOBERG.

Witnesses:
HENRY GOETHE,
LOUIS J. DOBRY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."