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DEVICE FOR HOLDING AND FEEDING PAPER.
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The invention is so designed that a stack of sheets is laid in the casing, the casing is 55 closed, the closing of the casing automatically gripping one end of the sheets so that they can be detached by tearing them individually therefrom, and after the casing is closed the handle or finger-piece, when operated, feeds the sheets forward one at a time, insuring the provision of a single sheet, overcoming the necessity of wetting the fingers to separate the sheets, insuring an absolutely clean sheet being produced, and in this way saving a great deal of time.

In the drawing I illustrate one form of device, it being understood, however, that other forms can be used to bring about the same result, changes being made in the shape and relative disposition of the parts to meet different conditions, such as different sizes of sheets, or different uses to which the invention is put, the type illustrated, however, being one in which the stack of sheets is folded over when the casing is closed so that a small casing can be used, making it a good pocket article and one especially well adapted for the holding and delivery of cigarette papers.

In the drawing Figure 1 is a perspective view with the casing closed, this view illustrating one embodiment of my invention, and Fig. 2 is a perspective view of the device shown in Fig. 1, the parts that are hinged together being swung apart to more clearly illustrate the construction on the inside of the casing. Fig. 3 is a longitudinal cross-section with the casing closed, this view being on a larger scale than Figs. 1 and 2, and Fig. 4 is a perspective view of the hinge joint between one of the lids of the casing and the plate that carries the roller, the parts being separated.

In the form shown the casing consists of two lids 10 and 11, which, for purposes of identification, will be called the top and bottom lids respectively, these lids being adapted to be secured together, and the most convenient and preferred way is by hinging them, the hinge 12 being used for this purpose, and a spring 13 is installed, the spring having a normal tendency to swing the lids toward each other to close the casing. The outer edges or ends of the lids are so formed as to provide a slit 14 through which a sheet

The present invention relates to an improved device for holding and feeding sheets of paper, the device covering the stack or pad of sheets so that it is kept clean and providing a compact and handy article.

The invention is designed to provide a device of this kind which is adapted to feed large and small sheets and can be used for paper toweling, toilet paper and other kinds of paper, but it is primarily designed to hold and feed cigarette papers, these being arranged in packages and must be separated by hand. It is difficult to take one sheet from the stack with the fingers because the sheets stick together somewhat, very often requiring blowing at the edges to separate them, sometimes the finger must be wet to take the top sheet off, this all resulting in delay and annoyance.

The present device receives a stack of sheets of cigarette paper, and has a finger-piece which is connected to a feeding device which pushes the sheets from the casing of the device one at a time. The papers are held so that they are retained, preferably at one end, so that the feeding device takes the outermost sheet, or the sheet on one face of the stack, detaches it from the grasping means, the surface sheet slipping on the next sheet and taking up the friction from the feeding device until said outermost or surface sheet uncovers the next sheet; this next sheet in turn becoming the surface sheet and being fed forward. The tearing of the sheet does not materially mutilate the sheet, leaving but a small slit on one end which does not detract from the usefulness or appearance of the sheet, the sheet emerging from the casing dry and clean.

The invention consists furthermore of a device for performing these functions, which device is made so that there are no interior projections to interfere with the smooth passage of the sheet to the outlet of the casing.
of paper can be passed, this slit being usually formed by cutting away one of the lids, usually the top one, at this point. The slit is narrow in the cigarette paper supplying device, as a cigarette paper is very thin in itself and requires only a small slit through which it can emerge. The lid 11 has side walls 15 and an end wall 16. The end wall 16 is designed to have its top edge form the bottom edge of the slit 14, and this end of the casing acts as an abutment against which a stack of sheets of cigarette paper is placed, one end of the stack coming down to this end of the casing when the device is open as in Fig. 2, and for the purpose of providing a stop for the stack, I employ a partition 17 against which the stack 18 of paper is placed. A plate 19 is hinged adjacent to the end 16 of the lid 11, the hinge being usually constructed by curling over the end 20 of the plate 19 so as to form a knuckle through which passes a pintle 21 which also is placed in the openings 22 in the side walls 15 of the lid 11. The knuckle is preferably placed downward so as to bring the top edge of the plate and the top edge of the end wall 16 in line so that they form a smooth surface over which the front edge of a paper sheet being fed forward can pass so as to emerge easily from the casing.

The outer end of the plate 19 is provided with a roller 23 which is rotatably arranged on the end of the plate, this usually being done by securing the roller to a shaft 24 which passes through the eyes 25 in the end of the plate 19, the shaft 24 acting as a handle by means of which the roller can be turned, and it is preferably provided with a finger-piece 26 to provide for its manipulation. The lids 10 and 11 are slotted as at 27 and 28 respectively to permit a movement of the plate within the casing when the lids are shut. The stack 18 of thin paper sheets is held at one end, usually the end adjacent to the end wall 16, so that the sheets can be torn off one at a time without material mutilation, and one way to provide such grasping means is by means of a wire pin 29 which, in the form shown, is provided on its upper end with a shoulder 30 and an end 31 passes into the knuckle 20 through the slot 32, and then forms a coil spring which surrounds the pintle 21 and has its end 33 bearing on the bottom surface of the plate 19. The end of the slot 32 acts as a shoulder against which the end 31 of the spring bears, and when the plate 19 is swung backward as shown in Fig. 2, the spring, and consequently the wire pin 29, is carried with it, but after a stack of sheets is laid into the casing, while the casing is open as in Fig. 2, then the plate 19 is swung downward and the pin 29 is permitted to descend through the slot 17 in the partition 17 and passes through the stack of sheets as shown in Fig. 3.

In Fig. 3 the sheets are shown separated slightly so as to clearly distinguish them, and they are exaggerated as to their thickness, this being done to clearly illustrate the invention, but it will be understood that the sheets are of very thin paper and lie very close together.

When the end of the pin engages the bottom of the lid 11 it does not engage the end 75 of the slot 32 and it thus has a spring action by means of its end 33 pressing upward on the plate 19. The plate is therefore held down while the two lids are swung together, and when the lids are swung together the stack of sheets is folded over so that the stack is bent as at 34 so that it is in contact with the roller 23. The lid 11 is preferably provided with an inclined plate 35 which extends at an angle so that its forward end is substantially continuous with the upper edge of the slit 14, the plate 19 and the inclined plate 35 thus forming a pair of slightly converging walls which insure the sheets being fed to the slit 14. One of the 90 lids, in the illustration it is the lid 10, is provided with flanges 36 which, when the lids are swung together, pass between the inner edges of the side walls 15 and the outer edges of the plate 19 so as to provide an unbroken side wall between the plates 19 and 35 and there are no obstructions on either the top or bottom, or either of the side walls of the passage through which the sheet passes from the roller to the slit 14. It will be evident that the spring 13 has more power than the spring within the knuckle 20 so that the roller 23 and the wall 35 hold the bent portion of the stack of sheets between them so that there is good frictional contact between what was the outermost sheet when the stack of sheets was laid into the open casing, and the roller. This sheet 37 which is in direct contact with the roller 23, and which was the outermost sheet or topmost sheet when the stack was laid into the casing, is called, in this specification and claims, for the purpose of identification, the outermost sheet.

When the stack 18 has been placed in the casing and the casing closed up as above described, the parts are in the position shown in Fig. 3, and when the handle, by means of which the roller 23 is operated, is turned, the outermost sheet 37 is frictionally engaged by the roller, this roller being usually made of soft rubber or similar material that will have a good frictional contact with the paper. The paper sheet 37 slides easily on the sheet next to it and is torn 125 by the pull of the roller, from the pin 29. The pin is usually made of very thin wire and the little tear at the end of the sheet
is nothing more than a small slit extending but a little way into the paper and does not materially mutilate that end of the paper, and as soon as the outermost sheet 37 is torn from the pin 29, and also during the tearing operation, it is fed forward so that its front edge is pushed out through the slit 14, and when a considerable part of the paper sheet has been fed out through the slot, the rear end of the sheet passes from the roller 23 and is thus released from the roller and can be removed from the casing. As soon as the rear end of the sheet passes over the roller, the next succeeding sheet is pulled by the roller so that it is torn from the grasping means, as the pin 29, and it is also fed forward as above described for the preceding sheet. Only the sheet that is in engagement with the roller 23 is fed forward, since the sheet so engaged slides easily on the next adjacent sheet, and said next adjacent sheet is not disturbed or subjected to sufficient pull to release it from the pin 29 until the sheet in engagement with the roller has passed entirely over the roller.

In a casing such as described and illustrated herein, in which the stack of sheets is folded over, good contact with the roller is provided by reason of this folding, a smaller casing can be used than if a casing to receive a whole stack without bending was employed, and it is better adapted for a pocket device. It will be understood, however, that all sizes of these devices can be made for feeding larger sheets of paper.

Having now described my invention, I claim:

1. A holding and feeding device for paper comprising a bottom lid, a top lid hinged to one end of the bottom lid, a spring-pressed plate hinged to the other end of the bottom lid, the two lids being formed so as to provide a slit where their ends meet when they are swung together, and a roller on the free end of the plate.

2. A holding and feeding device for paper comprising a bottom lid with marginal walls, a top lid hinged to the top of one end wall, a plate hinged to the other end wall, the lids being formed to provide a slit adjacent to the hinge of the plate, a spring to normally force the plate out of the bottom lid, and a roller on the plate.

3. A holding and feeding device for paper comprising a bottom lid with marginal walls, a top lid hinged to the top of one end wall, a plate hinged to the other end wall, the lids being formed to provide a slit adjacent to the hinge of the plate, a spring to normally force the plate out of the bottom lid, a roller on the plate, and an inclined plate in the top lid with its forward end substantially flush with the top of the slit.

4. A holding and feeding device for paper comprising a bottom lid with marginal walls, a top lid hinged to the top of one end wall, a plate hinged to the other end wall, the lids being formed to provide a slit adjacent to the hinge of the plate, and a spring to normally force the plate out of the bottom lid, the spring having one end forming a perforating pin, said end being in perforating position when the plate is swung toward the bottom end.

5. A holding and feeding device for paper comprising a casing having a slit therein, a plate hinged adjacent to the slit so as to guide a sheet of paper to the slit, a roller on the plate over which a stack of sheets is adapted to be folded, and a pin connected to the plate so that the pin perforates the stack when the plate is swung to operative position.

6. A holding and feeding device for paper comprising a pair of lids, a plate hinged to the outer end of one of the lids and adapted to lie between the lids, a roller on the plate, the lids being adapted to receive a stack of sheets and to fold the sheets over the roller when the lids are closed, and a stack holding means on the plate disposed so that it is forced to holding position when the plate is swung to permit the closing of the lids.

7. A holding and feeding device for paper comprising a pair of lids, a plate hinged to the outer end of one of the lids and adapted to lie between the lids, a roller on the plate, the lids being adapted to receive a stack of sheets and to fold the sheets over the roller when the lids are closed, and a spring bearing on the plate and having one end forming a pin adapted to bear against a lid, the pin being forced through the stack of sheets when the plate is swung to permit the folding of the lids.

8. A holding and feeding device for paper comprising a casing having an outlet opening and guiding means therein, the casing being adapted to receive a stack of detached sheets of paper, a hinged plate in said casing, said hinged plate having a roller on one end, the plate being pivoted adjacent to the opening in the casing and adapted to direct sheets toward said opening, said roller being yieldingly forced in engagement with the outermost sheet of the stack, and means for grasping the stack at the end farthest from the opening, said means permitting the sheets to be torn therefrom.

9. A holding and feeding device for paper comprising hinged lids, a plate pivoted to one of the lids and lying between the lids when they are shut, a roller on the plate, the casing having a slit at the hinged end of the plate, a spring for yieldingly forcing the plate and roller toward one of the lids, a handle on the roller and extending to the outside of the casing, the lids being adapted
to receive a stack of sheets which are folded over the roller when the lids are swung together, the plate and one of the lids acting to guide detached sheets toward the slit, and means for holding the end of the stack so that the sheets can be detached and fed forward without material mutilation when the roller is turned.

10. A holding and feeding device for paper comprising hinged lids, a plate pivoted to one of the lids and lying between the lids when they are shut, a roller on the plate, the casing having a slit at the hinged end of the plate, a spring for yieldingly forcing the plate and roller toward one of the lids, a handle on the roller and extending to the outside of the casing, the lids being adapted to receive a stack of sheets which are folded over the roller when the lids are swung together, and a pin on the end of the spring, said pin being disposed so that when the lids and the plate are swung to their closed positions the pin is forced through the stack near the end thereof.

11. A holding and feeding device for paper comprising a pair of lids hinged at one end to each other, a plate hinged at the free end of one of said lids, the meeting edges of the lids being formed so that a slit is provided through which a sheet of paper can pass out, the lids when open being adapted to receive a stack of paper sheets, a roller on the plate over which the sheets are folded when the lids are swung together, a handle on the roller by means of which it is rotated, said handle extending to the outside of the casing, the lids being slotted to receive said handle, and a pin adjacent to said hinge of the plate and adapted to puncture the stack close to one edge of the sheets so that when the roller is turned the sheets are successively torn from the pin without material mutilation.

12. A holding and feeding device for paper comprising a pair of lids hinged at one end to each other, a plate hinged at the free end of one of said lids, the meeting edges of the lids being formed so that a slit is provided through which a sheet of paper can pass out, the lids when open being adapted to receive a stack of paper sheets, a roller on the plate over which the sheets are folded when the lids are swung together, a handle on the roller by means of which it is rotated, said handle extending to the outside of the casing, the lids being slotted to receive said handle, and a coil spring having one end bearing against the plate and having its other end emerging from said hinged part of the plate and limited thereby in one direction, the spring terminating in a pin which normally bears against the bottom of the lid to which the plate is hinged when the plate is swung to a position between the lids whereby the spring is given a tendency to normally force the roller against the other lid, said pin perforating the stack of sheets near one end thereof.

13. A device for holding and feeding paper comprising a pair of lids hinged together, the lids being formed at their outer meeting edges so that a space is provided through which a sheet of paper can emerge, one of said lids having an inclined inner surface adapted to guide a sheet of paper toward the opening, a plate hinged to the other lid adjacent to the outer edge and adapted to cooperate in said guiding toward the opening, a roller on the end of the plate, a shaft on the roller projecting from the plate at one side thereof, the lids having their side walls provided with slots in which the shaft is placed when the lids are swung together, a finger-piece on the shaft for turning the roller, the lids when open being adapted to receive a stack of sheets, the plate being adapted to project toward the hinged ends of the lids when the lids are open, the closing of the lids causing the stack to be folded over the roller, the hinge of the plate being slotted, and a coil spring having one edge emerging through the slot of the hinge and having its other end bearing on the plate, the end of the spring projecting through the slot being formed into a pin, the pin and spring cooperating to normally force the roller in engagement with the inclined portion of the first mentioned lid and also to cause said pin to pierce the stack adjacent to one end thereof.

14. A device for holding and feeding paper comprising a pair of lids hinged together, the lids being formed at their outer meeting edges so that a space is provided through which a sheet of paper can emerge, one of said lids having an inclined inner surface adapted to guide a sheet of paper toward the opening, a plate hinged to the other lid adjacent to the outer edge and adapted to cooperate in said guiding toward the opening, a roller on the end of the plate, a shaft on the roller projecting from the plate at one side thereof, the lids having their side walls provided with slots in which the shaft is placed when the lids are swung together, a finger-piece on the shaft for turning the roller, the lids when open being adapted to receive a stack of sheets, the plate being adapted to project toward the hinged ends of the lids when the lids are open, the closing of the lids causing the stack to be folded over the roller, the hinge of the plate being slotted, and a coil spring having one edge emerging through the slot of the hinge and having its other end bearing on the plate, the end of the spring projecting through the slot being formed into a pin, the pin and spring cooperating to
normally force the roller in engagement with the inclined portion of the first mentioned lid and also to cause said pin to pierce the stack adjacent to one end thereof, the first mentioned lid having side flanges projecting therefrom and adapted to pass between the inner edges of the other lid and the side edges of the plate to provide unbroken side guides for the paper sheets as they are fed forward by the roller.

In testimony that I claim the foregoing, I have hereunto set my hand, this 13th day of December, 1915.

HANS E. A. MARKER.

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