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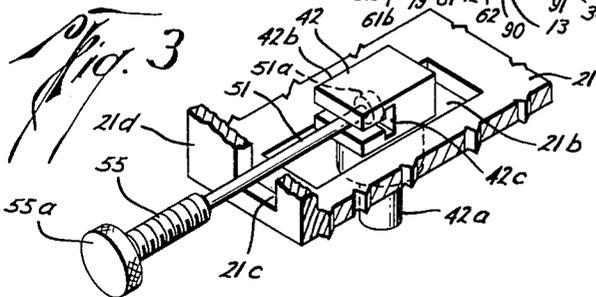
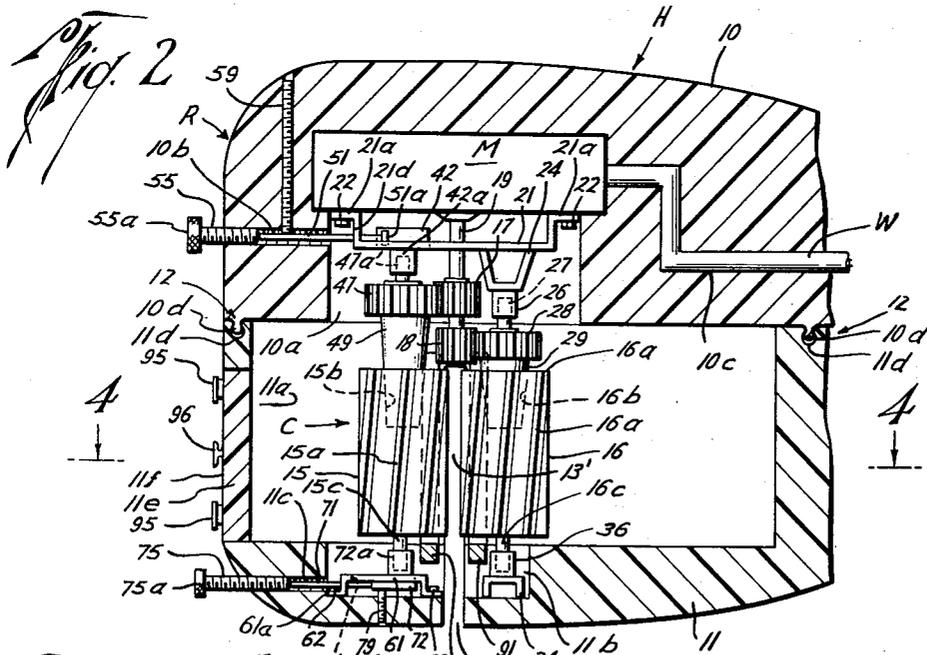
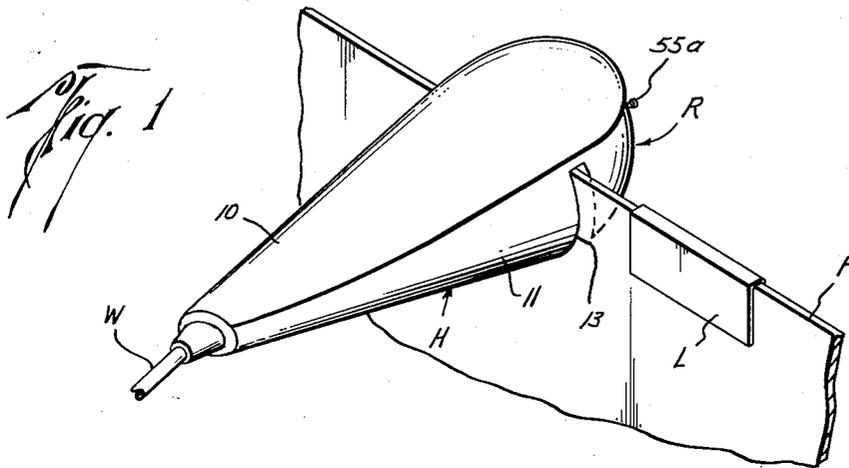
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LABEL REMOVER

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2 Sheets-Sheet 1



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**LABEL REMOVER**

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5 Claims. (Cl. 15-93)

The present invention relates to a new and improved device for removing the labels from file folders or the like.

For most filing purposes, manilla folders or other similar type of folders are used. The contents of such folders are usually identified by the nomenclature on the label adhesively secured to the tab of the folder. In many offices, the file folders are used over and over again for different files or contents and in such cases, the old label is ordinarily removed so that a new label may be placed on the file folder. Heretofore, the removal of such labels has generally been accomplished by scraping the label with a knife or razor blade which is slow, tedious and even dangerous, particularly since it is important to remove all of the label without damaging the file folder itself.

It is therefore an important object of the present invention to provide a new and improved means for quickly, easily and safely removing the labels from file folders or the like.

Another object of the present invention is to provide a new and improved means for removing paper, cloth, or other non-metallic labels from file folders or the like.

Still another object of the present invention is to provide a new and improved device wherein labels may be quickly and easily removed from file folders or the like by one or more rotating cutting blades.

A further object of the present invention is to provide a new and improved device wherein labels may be quickly and easily removed from file folders or the like by a buffing, sanding or rubbing action.

A still further object of the present invention is to provide a new and improved device for removing labels from file folders or the like wherein the device may be easily fitted on the tab of the folder and over the label affixed thereto.

Yet a further object of the present invention is to provide a new and improved means for removing labels from folders or the like which may be readily adjusted to remove labels from folders of varying thicknesses.

The construction designed to carry out the invention will be hereinafter described, together with other features thereof.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawings forming a part thereof, wherein an example of the invention is shown, and wherein:

FIG. 1 is a perspective view of the device of the present invention illustrating the device in position for use on the edge of a file folder or the like;

FIG. 2 is a partial sectional view of the device of the present invention;

FIG. 3 is a perspective view of the means for moving the position of one of the rotatable elements;

FIG. 4 is a view taken on line 4-4 of FIG. 2;

FIG. 5 is a plan view illustrating the arrangement of the gear drive mechanism of the device of the present invention;

FIG. 6 is an elevation of an alternative cutter;

FIG. 7 is an elevation of another alternative type of cutting blade; and

FIG. 8 is an isometric view of one of the guide springs of the device of the present invention.

In the drawings, the device of the present invention is designated generally with the letter R. Briefly, the

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device R includes a body housing H which is preferably formed from an upper body member 10 and a lower body member 11 which are secured together by friction snap-on means 12, which will be described hereinafter, or any other suitable securing means. The lower body member 11 has a lateral slot 13 extending therethrough into which the edge of a file folder F or the like is adapted to be positioned for the removal of a label L, as will be more fully explained. A motor M is mounted in the upper body member 10 for supplying power to a label removing mechanism C positioned in compartments 10a and 11a formed in the housing H.

Considering the invention more in detail, the label removing mechanism C has a pair of rotatable elements 15 and 16 having blades or cutting edges 15a and 16a respectively, thereon. The elements 15 and 16 are substantially cylindrical and are preferably identical. In the form shown in FIG. 2, the blades 15a and 16a have spiral or inclined blades which accomplish a scraping and cutting action on the label L with which they are engaged when the elements 15 and 16 are rotated, as will be explained. Also, as will be more evident hereinafter, the spiral or inclined blades effect a feeding of the removed portions of the label L away from the elements 15 and 16 to keep the blades 15a and 16a substantially clear from the removed portions of the label for thereby facilitating the removal of the label L. For the purpose of connecting the rotatable elements 15 and 16 in drive relationship with the motor M, gears 17 and 18 are positioned longitudinally one above the other on a motor shaft 19. A bracket 21 which is shown as substantially U-shaped is attached to the motor M by means of screws 22 or other suitable means connecting the flanged sides 21a to the motor M. A support 24 is welded or otherwise suitably fixed to the bracket 21 for supporting a bushing 26 therebelow. Such bushing 26 is adapted to receive a shaft 27 which has a gear 28 thereon and a tapered insert 29 therebelow. The tapered insert 29 is positioned in an opening 16b in the element 16 for establishing a releasable driving connection therebetween. For supporting the lower end of the element 16, a support 34 is secured to the lower body member 11 by adhesive or other suitable means and is positioned in a lower cavity or recess 11b formed in such member 11. A bushing 36 is integral with or is suitably attached to the support 34 for receiving a lower axle 16c on the lower end of the element 16. The gear 28 has teeth 28a thereon which mesh with teeth 18a on the gear 18 on the drive shaft 19 of the motor M so that as the motor M operates the drive shaft 19, the gear 18 is rotated which in turn rotates the gear 28 to rotate the insert 29 and the element 16 therewith. It will be understood that only a portion of the gear teeth 28a and 18a are shown in FIG. 5 since such teeth actually extend around the full circumference of each gear.

The element 15 is mounted adjacent to the element 16 but with the elements spaced apart to provide an opening 13' therebetween which is suitable for receiving the edge of the file folder F. Also, it is preferable to mount the element 15 for lateral movement to adjust the width of the space 13' to accommodate file folders of different thicknesses. To provide such adjustable mounting, the frame member 21 has an opening or slot 21b (FIG. 3) in which a slidable bushing 42 is positioned for movement back and forth therein. The bushing 42 has a bushing sleeve 42a on its lower end which is preferably integral with a head 42b thereon. A T-slot 42c is formed in the head 42b for receiving an enlarged end 51a on an adjusting rod 51. A slot or opening 21c is provided in the leg 21d of the member 21 through which the rod 51 extends. The rod 51 has an adjusting screw 55 connected thereto which is threaded into a threaded hole

10b therein through which the rod 51 and the adjusting screw 55 extend. Thus, by turning the knob 55a on the screw 55, the rod 51 and the bushing 42 are moved to change the position of the bushing 42 in the slot 21b. A set screw 59 is threaded vertically into the upper body member 10 for engagement with the rod 51 to lock the rod 51 and the parts therewith against movement when a desired position of the bushing 42 is obtained.

For connecting the upper end of the element 15 to the movable bushing 42, a shaft 47a' on a gear 47 extends into the bushing sleeve 42a. An insert 49 similar to the insert 29 but longer, is adapted to releasably fit into the opening 15b of the member 15. A variable gear mechanism which includes gears 47 and 17 is provided so that the gear 47 meshes with the gear 17 on the shaft 19, both of which have extra long gear teeth 47a and 17a, respectively (FIG. 5), so that such gears remain in mesh even though the gear 47 is moved towards and away from the gear 17 when the bushing 42 is moved. The teeth 47a and 17a would of course extend for the full circumference of the gears 47 and 17, respectively. The slot 21b is of such length that it limits the movement of the member 42 to prevent the gear teeth 47a and 17a from separating from each other. As will be more evident, such construction permits an adjustment of the opening 13' to accommodate folders or sheets of different thicknesses.

A similar adjustable mounting means is used on the lower end of the rotatable element 15. A bracket 61 similar in shape to the bracket 21 is attached to the lower body member 11 by screws 62 or other suitable means extending through flanged ends 61a into the member 11. The member 61 has a slot 61b which is preferably identical with the slot 21b in the bracket 21. A slidable bushing 72 similar to the slidable bushing 42 is slidably positioned in the slot 61b and is also provided with a bushing sleeve 72a for receiving the lower axle 15c. An adjusting rod 71 is connected to the bushing 72, preferably in the same manner as the rod 51 is connected to the bushing 42. A threaded hole 11c is provided in the member 11 to receive the adjusting screw 75 which is connected to the rod 71 for movement together. The screw 75 has a knob 75a for turning the screw 75. A set screw 79 is positioned in the body member 11 of the housing H for locking the rods 71 and the bushing 61 in any selected position. If desired, the lower adjustment screw 75, the rod 71 and the set screw 79 may be eliminated, in which case the bushing 72 would be free to move with the element 15 as it is moved at its upper end by the turning of the screw 55 as previously explained.

To hold the file folders or other sheets firmly within the slot or opening 13 and the space 13' between the elements 15 and 16, a pair of springs or guides 90 (FIGS. 4 and 8) and 91 (FIG. 4) may be fixed to the housing H by means of screws 93 or other suitable means. The guides 90 and 91 are positioned opposite each other and are fitted into the slot 13. The details of the guide 90 is shown in FIG. 8, wherein the window 90a is seen through which a portion of the element 15 extends. Openings 90b are provided in the guide 90 for receiving the screws 93. The guide 90 has resilient curved extensions 90c outwardly of the screws 93 for resiliently but firmly engaging the file folder or sheet. The guide 91 is identical with the guide 90 and has a window 91a through which the element 16 extends, holes 91b for screws 93, and curved extensions 91c opposite the extensions 90c for engaging a file folder or sheet between them and also to aid in guiding the file folder or sheet through the rotating elements 15 and 16.

In the preferred embodiment of the invention, a relatively high speed motor is used and a channel 10c or similar space is provided in the upper member 10 through which electrical wires W from the motor extend to any suitable electrical outlet (not shown). In order to re-

move any shavings or particles of labels which have been removed from file folders or sheets which may accumulate in the compartments 11a and 10a, a door 11e is placed in the body member 11. Hinges 95 are provided for attaching the door 11e to the body member 11 so that such door 11e may be easily opened. A knob 96 or other suitable means is provided on the outer surface 11f of the door 11e for further facilitating the opening of the door 11e. The edge 11g (FIG. 4) of the door 11e is tapered inwardly, and the edge 11h of the housing 11 opposite the door edge 11g is tapered also so as to make a relatively tight fit of the door 11e in the housing 11. Such door of course may be eliminated and the shavings removed from the compartments 11a and 10a merely by separating the upper body member 10 from the lower body member 11 which exposes the compartments 11a and 10a so that the shavings may be quickly and easily removed by shaking or other suitable means as desired. The rotatable elements 15 and 16 are disconnected from the inserts 49 and 29 respectively when the upper body member 10 is separated from the lower body member 11. This arrangement facilitates the removal of the rotatable elements 15 and 16 for replacement or repair thereof. The tapered inserts 49 and 29 are easily fitted into the openings 15b and 16b respectively, when it is desired to join the upper body member 10 with the lower body member 11.

Friction snap-ons 12 are illustrated in FIG. 2 and are provided for easily assembling and dis-assembly of the upper body member 10 and the lower body member 11. Each snap-on 12 includes a male member 10d which is adapted for insertion in a female member 11d. As many snap-on members 12 as desired may be used, but preferably four are used.

In the operation of device R of this invention, the first step is to adjust the opening 13' between the elements 15 and 16, if necessary. Such adjustment is accomplished by means of the adjustment screws 55 and 75, as previously explained, so that the width of the opening 13' will coincide or correspond to the thickness of the file folder F or other sheet from which the label L or similar item is to be removed. The set screws 59 and 79 would then be tightened to lock the adjustable element 15 in the selected position. Then the device R, which is preferably small enough so as to fit comfortably into the palm of the hand, is firmly grasped and placed in position on the edge of a file folder F as illustrated in FIG. 1 or on any similar sheet. The motor M drives the shaft 19 to rotate the gears 17 and 18, and thus drives the gears 28 and 47 for thereby rotating the elements 15 and 16. During such rotation of the elements 15 and 16, the device R is manually moved along the folder F and the cutting blades 15a and 16a scrape and cut the label L from the folder F without damaging the folder itself.

Although the preferred form of the invention is illustrated with the rotatable elements 15 and 16 having spiral or inclined cutting blades 15a and 16a, respectively, other types of rotatable elements may be used, examples of which are shown in FIGS. 6 and 7. In FIG. 6, the modified element 115 is identical with the elements 15 and 16 except for the construction of the cutting blades 115a which are vertical or longitudinal rather than spiral or inclined, and therefore the opening 115b corresponds with the opening 15b and the axle 115c corresponds with the axle 15c.

In FIG. 7, the modified element 215 is identical with the elements 15 and 16 except for the construction of the surface 215a which is scored or knurled so as to produce a buffing, sanding or rubbing effect, rather than a cutting one. The opening 215b corresponds with the opening 15b and the axle 215c corresponds with the axle 15c.

It should also be noted that the adjustment means provided for moving the rotatable element 15 in relation to the element 16 may be eliminated, and in which case the

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opening 13' would remain fixed. The extra long gear teeth 47a and 17a on the gears 47 and 17 respectively, would not be necessary with the rotatable elements 15 and 16 mounted in a fixed position in relation to each other.

The device of the present invention solves a problem that has long plagued persons engaged in filing operations. Labels may be quickly and easily removed by the device R of the invention and file folders may be used over and over again thus creating a large saving in filing operations.

The foregoing disclosure and description of the invention is illustrative and explanatory thereof and various changes in the size, shape and materials, as well as in the details of the illustrated construction, may be made within the scope of the appended claims without departing from the spirit of the invention.

What is claimed is:

1. An apparatus for removing labels from file folders, sheets and the like, including a body housing, a motor mounted in said body housing, a pair of opposed rotatable elements having a longitudinal opening therebetween, each of said elements having means therewith for engaging a label for removing same upon rotation of said elements, connection means connecting said motor to said rotatable elements, said body housing having a slot therein coinciding with the opening between said rotatable elements thereby permitting a file folder or sheet with a label affixed thereto to be inserted therein and between said rotatable elements, means mounting said elements in said housing to maintain said slot in alignment with said longitudinal opening during rotation of said rotatable elements, and an adjustment means at each end of one of said rotatable elements for moving said one of said rotatable elements laterally and substantially parallel to the other of said rotatable elements to adjust the space between said rotatable elements for accommodating folders or sheets of different thicknesses.

2. An apparatus for removing labels from file folders, sheets and the like, including a body housing, a motor mounted in said body housing, a pair of opposed longitudinally extending rotatable elements having a longitudinal opening therebetween, connection means connecting said motor to said rotatable elements, said body housing having a slot therein coinciding with the opening between said rotatable elements thereby permitting a file folder or sheet with a label affixed thereto to be inserted therein and between said rotatable elements, spring guides in said slot, each of said spring guides having a window through which said rotatable elements extend there-through for engagement with the file folders while said spring guides engage the folders outwardly of said rotatable elements, an adjustment means for one of said rotatable elements, said adjustment means including a

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bracket having a horizontal slot therein, a bushing member connected to said one of said rotatable elements and slidably positioned in said horizontal slot, and means for moving said bushing member in said horizontal slot to thereby move said one of said rotatable elements to adjust the space between said rotatable elements for receiving folders or sheets of different thicknesses therebetween.

3. The structure recited in claim 2, including an adjusting screw on said bushing member, said body housing having a threaded opening therein adapted to receive said screw and to be engaged therewith whereby the movement of said bushing member in said horizontal slot is accomplished by the turning of said adjusting screw.

4. An apparatus for removing labels from file folders, sheets and the like, including a pair of opposed rotatable elements having a longitudinal opening therebetween, a motor for driving said rotatable elements, connection means connecting said motor to said rotatable elements, said longitudinal opening between said rotatable elements being of a width to receive a file folder, sheet or the like therebetween, and separate screw adjustment means at each end of one of said rotatable elements for moving it laterally and substantially parallel to the other of said rotatable elements to adjust the space between said rotatable elements for accommodating folders, sheets or the like of different thicknesses.

5. An apparatus for removing labels from file folders, sheets and the like, including a pair of opposed rotatable elements having a longitudinal opening therebetween, a motor for driving said rotatable elements, connection means connecting said motor to said rotatable elements, said longitudinal opening between said rotatable elements being of a width to receive a file folder, sheet or the like therebetween, means for guiding said file folder, sheet or the like through said longitudinal opening between said rotatable elements while said rotatable elements are rotating, and said rotatable elements each having a substantially cylindrical external surface and blades protruding therefrom for effecting the scraping of a label from the file folder or sheet.

References Cited in the file of this patent

UNITED STATES PATENTS

45	1,237,047	Howell -----	Aug. 14, 1917
	1,930,219	Zimber -----	Oct. 10, 1933
	2,037,330	Jackson -----	Apr. 14, 1936
	2,246,036	Farrell -----	June 17, 1941
	2,264,278	Danforth -----	Dec. 2, 1941
50	2,755,708	Rumsavich -----	July 24, 1956

FOREIGN PATENTS

2,837,973	Dunlap -----	June 10, 1958
165,164	Sweden -----	Oct. 28, 1958