June 3, 1952 H. L. NEILSEN ET AL 2,598,819

ADDRESS LISTING DEVICE

Filed March 3, 1950

Fig. 1.

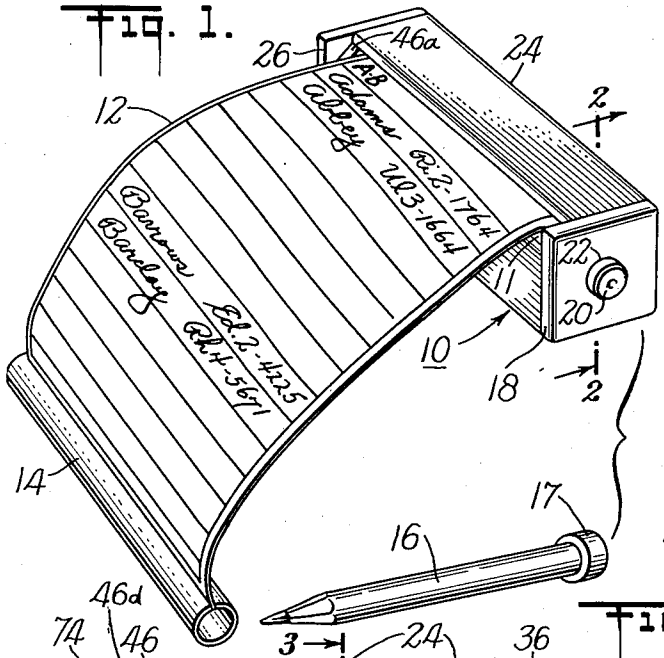


Fig. 4.

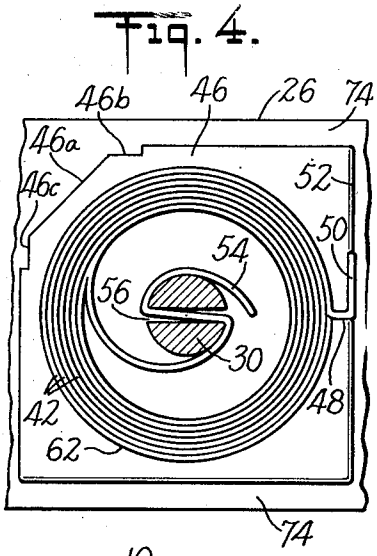


Fig. 2.

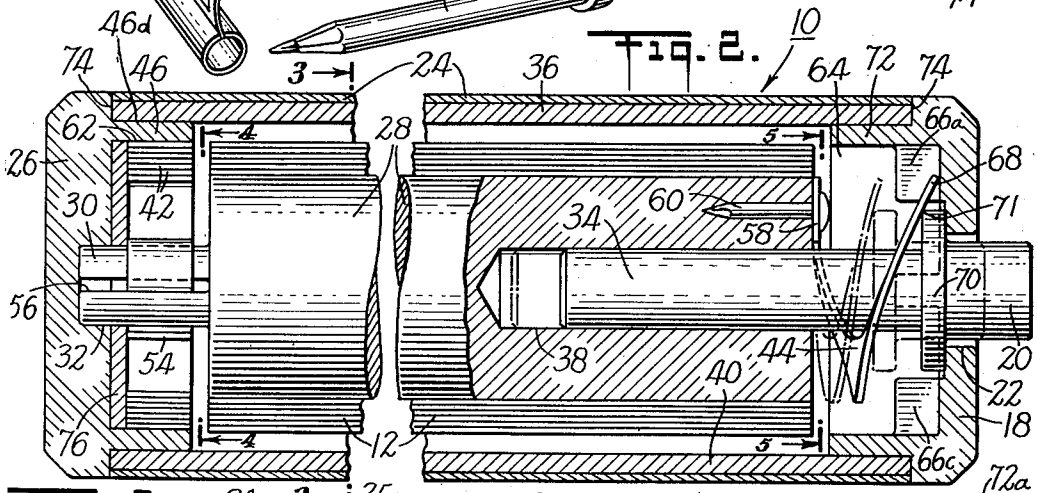


Fig. 3.

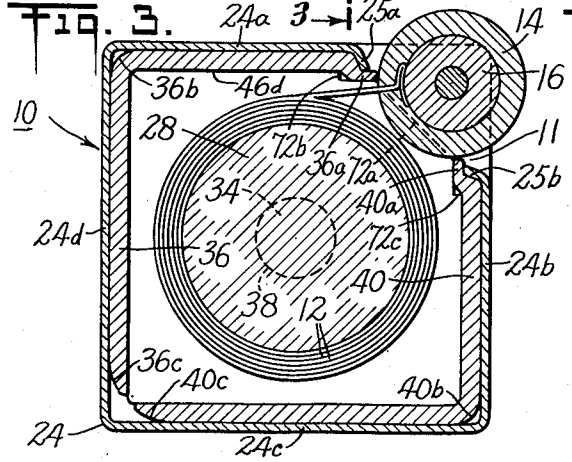
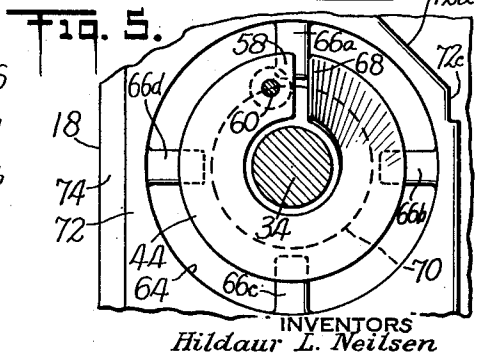


Fig. 5.



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ADDRESS LISTING DEVICE

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2 Claims. (Cl. 220—4)

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Our invention relates to an address listing device characterized by a rolled web of paper or fabric that may be withdrawn from or retracted into a casing, and more particularly to such a device suitable for a pocket memorandum sheet.

Frequently one desires to make a notation of a name or telephone number and the like and finds himself without a pencil and paper, or else after the notation is recorded it is misplaced and cannot be found when required. Then, too, if such notes are made on several pieces of paper they collect as a bulky, dishevelled mass.

Accordingly, it is among the objects of my invention to provide a compact, attractive memorandum sheet and pencil, which is convenient to carry and not likely to be misplaced. Another object is to provide such a device which is simple to use, durable and of foolproof design. A further object is to provide a construction which will roll a memorandum sheet into a spool and thereby retain it normally in a retracted position, and which will allow the sheet to be withdrawn and automatically locked at any desired position for use, and which may be automatically retracted when desired.

Another object is to provide a case and spool which are made from inexpensive parts so designed as to lend themselves to rapid assembly. A still further object is to provide fittings which permit smooth operation and which may not be tampered with or removed once all parts are assembled.

These and other objects will be in part obvious and in part pointed out below.

The invention accordingly consists in the features of construction, combinations of elements, arrangements of parts and in the several steps and relation and order of each of the same to one or more of the others, all as will be illustratively described herein, and the scope of the application of which will be indicated in the claims.

In the drawings:

Fig. 1 is a perspective view of the memorandum case with the sheet partially unrolled and a pencil removed from its housing;

Fig. 2 is an enlarged fragmentary vertical section of the memorandum case shown in Fig. 1,

Fig. 3 is a vertical section taken along line 3—3 of Fig. 2;

Fig. 4 is a fragmentary vertical section taken along line 4—4 of Fig. 2; and

Fig. 5 is a fragmentary vertical section along line 5—5 of Fig. 2.

In the illustrative embodiment of the present invention a strip of special cloth that is tear resistant, washable, and capable of being written

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on, is attached to and rolled upon a spool which is mounted in a plastic-lined metal case. The case is provided with plastic end pieces molded from the same material as the lining, so that after assembly a small amount of suitable organic solvent may be injected underneath the edges of the liner to weld the parts together. The spool has a spindle on one end which journals into an end piece and attaches to a flat spiral spring which is seated in that end piece, while the other end is bored to receive a shaft which has a flange and a button at one extremity. The button protrudes through a hole in the center of the other end piece, and a helical spring attached to the spool encircles the shaft and rests against its flange. The helical spring coacts with teeth in the end piece to provide a ratchet type lock which releases the strip when the button is depressed. The outer extremity of the writing strip is attached to a hollow pull bar which may be adapted to receive a pencil.

Referring now to Fig. 1, a memorandum case 10 with a square cross-section is illustrated with a writing strip 12 partially withdrawn through longitudinal opening 11. Strip 12 may be paper or fabric, but we prefer to use a specially treated cloth which can be written on with either pencil or pen, which is washable, and which resists tearing and fraying. It may be ruled and lettered as shown for the convenience of the user, and is suitable for making notations such as the fictitious names and telephone numbers illustrated. A cylindrical pull bar 14, fixed to the end of strip 12, has the threefold purpose of preventing strip 12 from completely retracting inside case 10, of providing a grip for pulling the strip, and serving as a housing for a writing instrument, such as a lead pencil 16 which may be inserted inside to be friction held to the assembly. An enlarged cap 17 is provided to prevent pencil 16 from sliding completely into pull bar 14.

A push button 20 protrudes through a hole 22 in a square end piece 18 and serves to release strip 12 for retraction, as described below in detail. A square end piece 26 is situated at the opposite end of case 10, while a metal jacket 24 forms the side walls of the case between end pieces 18 and 26.

The internal details of case 10 are shown in Fig. 2. A cylindrical spool 28 on which strip 12 is rolled is rotatably mounted between end pieces 26 and 18. A spindle 30 affixed to the left side of spool 28 journals into bore 32 in end piece 26 to hold one end in position, while an elongated shaft 34 extending from release button 20 journals into a deep bore 38 of spool 28 to hold the other end

in position. Release button 20 projects through hole 22 in end piece 18 and accordingly provides the bearing for the right end of spool 28. Spool 28 is therefore supported and turned on spindle 30 on the left end and around shaft 34 on the right end.

The mechanism is constructed so that strip 12 may be drawn by pull bar 14 through opening 11 in the casing to a desired length or position and automatically held there until released. By depressing release button 20 strip 12 will be returned to its normal rolled up position. This type of operation is accomplished by the use of a flat spiral or coil spring 42 at the left side of spool 28 and a helical spring 44 at the right side. Coil spring 42 fits into a circular well 62 formed in end piece 26 (Fig. 4), the outer end 50 of the spring being bent over and extended through a slot 48 and against end piece side 52, the inner end 54 of the spring being S-shaped and inserted through a slot 56 formed in the end of spindle 30. Consequently, when spindle 30 is rotated counterclockwise as viewed in Fig. 4, coil spring 42 will be placed under tension and will urge spindle 30 in the opposite direction to rewind strip 12 when spool 28 is released.

The locking means is provided by a ratchet arrangement shown in Fig. 5 and at the right side of Fig. 2. Helical spring 44, which has one end 58 secured to spool 28 as by a nail 60, encircles shaft 34 and projects into a circular well 64 in end piece 18 in which ratchet teeth project, four such teeth 66*a*, 66*b*, 66*c* and 66*d* being shown in the illustrative embodiment (Fig. 5). End 68 of helical spring 44 will snap over ratchet teeth 66*a*, 66*b*, 66*c* and 66*d* as spool 28 revolves when strip 12 is withdrawn, while simultaneously coil spring 42 is placed under tension as above described; however, when strip 12 is released, coil spring 42 will urge spool 28 in the reverse direction and end 68 of helical spring 44 will lodge against one of the ratchet teeth to lock spool 28 so that strip 12 will be held in its extended position. Spring end 68 rests against a flange 70 on shaft 34 adjacent button 20. Thus button 20 is normally retained in an extended position and permits release of spool 28 when button 20 is depressed, as shown in broken lines in Fig. 2. Such depression of button 20 causes end 68 to clear ratchet tooth 66*a*, and by holding in button 20 spool 28 will continue to rewind strip 12 since end 68 of helical spring 44 will slide around edge 71 of flange 70.

The enclosure for rolled memorandum strip 12 provides a sturdy and durable structure which is economical, easily assembled, and tamper proof. It consists of an outer metal jacket 24 surrounding plastic liners 36 and 40 (see Fig. 3) to provide a plastic-lined elongated casing which embraces portions 46 and 72 of end pieces 26 and 18 respectively. Each end piece has a peripheral shoulder 74 against which the edges of the jacket and liners abut.

The enclosure is constructed for easy assembly, and is so designed that its components once assembled may not be taken apart. Jacket 24 is made from a suitable resilient material such as sheet metal with sides 24*c* and 24*d* (Fig. 3) at right angles and sides 24*a* and 24*b* prestrained inwardly to exert a compression force when the parts are assembled as shown in Fig. 3. Sides 24*a* and 24*b* are foreshortened and edges 25*a* and 25*b* are bent over to form opening 11 through which strip 12 may be withdrawn.

Liners 36 and 40 are substantially identical in size and shape, and form bisymmetric L-shaped liners for jacket 24 when they are assembled over inserts 46 and 72 of end pieces 26 and 18 respectively. The aforementioned spring compression of jacket 24 retains these parts in position, while as to one another the parts are loosely fitted to facilitate rapid assembly. One corner 72*a* of insert 72 of end piece 18 is bevelled and is inset at 72*b* and 72*c* on each side of the bevel (Fig. 3) to permit pull bar 14 to rest partially within the corners of the casing and to accommodate the shaped edges 36*a* and 40*a* of liners 36 and 40 respectively, while insert 46 of end piece 26 (Fig. 4) has a bevelled corner 46*a* with insets 46*b* and 46*c* which serve the same purposes. Edges 25*a* and 25*b* of jacket 24 fit against the upper curved portions of shaped edges 36*a* and 40*a* of the liners respectively hence any danger of strip 12 rubbing or fraying on the metal edges of jacket 24 is avoided.

Liners 36 and 40 are designed to fit snugly within jacket 24 and against inserts 46 and 72, and yet any binding of parts is eliminated by increasing the radius of corners 36*b* and 40*b* and foreshortening and beveling edges 36*c* and 40*c*. End pieces 18 and 26, liners 36 and 40, and jacket 24 may be quickly assembled without need for adjustment for tolerances. The entire memorandum case is put together simply by inserting liners 36 and 40 in place along diametrically opposed corners of jacket 24 (Fig. 3), flexing the right side of jacket 24 outwardly to fit end piece 18 into place, inserting spool 28 between the liners with shaft 34 in hole 38 and strip 12 rolled up (but pull bar 14 of course being on the outside of opening 11), then engaging spindle 30 with end 54 of spring 42 which is seated in end piece 26 and turning piece 26 to load spring 42, and finally flexing the left side of jacket 24 outwardly to allow end piece 26 to be seated. If desired a washer 76 may be placed between coil spring 42 and end piece 26 to prevent binding of parts.

Liners 36 and 40 are preferably molded from the same plastic material as end pieces 18 and 26 so that these parts may be held together permanently after they are assembled by injecting between the overlapping edges (such as 46*d* in Figs. 2 and 3) a suitable cement or organic solvent which causes the plastic parts to adhere. The end pieces are then incapable of removal without destruction, and jacket 24 is spring locked around the liners, thereby forming a strong, compact casing. By using plastic liners 36 and 40 a sturdy foundation for metal jacket 24 is provided. Thus the jacket may be made of very light gage sheet metal which is costly relative to the plastic liners.

As many possible embodiments may be of the above invention, and as many changes might be made in the embodiment above set forth, it is to be understood that all matter hereinabove set forth or shown in the accompanying drawings is to interpreted as illustrative and not in a limiting sense.

What we claim is:

1. As a sub-assembly, a casing construction with a longitudinal opening consisting of a light weight sheet metal jacket which is sprung inwardly, plastic liners adapted to fit loosely against the inside walls of said jacket, and end pieces flanged to extend between said liners when said jacket is sprung outwardly, thereby to pre-

vent disassembly of component parts when said liner flanges are welded to said end pieces.

2. As a sub-assembly, a casing construction with a longitudinal opening, consisting of a metal jacket which is sprung inwardly, bisymmetric plastic liners adapted to fit loosely against the inside walls of said jacket, and plastic end pieces flanged to extend between said liners when said jacket is sprung outwardly, thereby to permit said end pieces to be secured permanently to said liners by injecting suitable fluid material between the overlapping portions of said liner and said end piece flanges to cause cementing of the plastic parts.

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