

↓ INSTRUCTIONS  
(a) If Convention  
application insert  
"Convention"

595543

(a) CONVENTION

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(b) Delete one

APPLICATION FOR A (b) STANDARD/~~PETTY~~ PATENT

(c) Insert FULL  
name(s) of  
applicant(s)

☒ We (c) SWINGLINE INC.

(d) Insert FULL  
address(es) of  
applicant(s)

of (d) 32-00 Skillman Avenue,  
Long Island City, New York,  
United States of America.

(e) Delete one

hereby apply for the grant of a (e) Standard/~~Petty~~ Patent for an invention entitled

(f) Insert TITLE  
of invention

(f) "STAPLER MECHANISM"

(g) Insert "complete"  
or "provisional"  
or "petty patent"

which is described in the accompanying (g) COMPLETE specification.

(Note: The following applies only to Convention applications)

Details of basic application(s)

(h) Insert number,  
country and  
filing date for  
the/or each  
basic application

	Application No.	Country	Filing Date
(h)	799,080	United States of America	18 November 1985
	860,730	United States of America	7 May, 1986

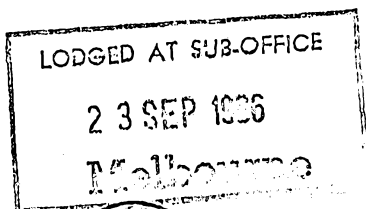
APPLICATION ACCEPTED AND AMENDMENTS

ALLOWED 31-1-90

Address for Service:

PHILLIPS ORMONDE AND FITZPATRICK  
Patent and Trade Mark Attorneys  
367 Collins Street  
Melbourne, Australia 3000

(i) Insert date  
of signing



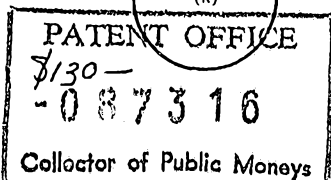
Dated (i) 23 September, 1986

(j) Signature of  
applicant(s)  
(For body  
corporate  
see headnote\*)

(j) PHILLIPS ORMONDE & FITZPATRICK  
Attorneys for:  
SWINGLINE INC.

(k) Corporate seal  
if any

Note: No legalization  
or other witness  
required



David B Fitzpatrick

PHILLIPS ORMONDE AND FITZPATRICK  
Patent and Trade Mark Attorneys  
367 Collins Street  
Melbourne, Australia

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## DECLARATION FOR A PATENT APPLICATION

## ▼ INSTRUCTIONS

(a) Insert "Convention" if applicable

(b) Insert FULL name(s) of applicant(s)

(c) Insert "of addition" if applicable

(d) Insert TITLE of invention

(e) Insert FULL name(s) AND address(es) of declarant(s) (See headnote\*)

(f) Insert FULL name(s) AND address(es) of actual inventor(s)

(g) Recite how applicant(s) derive(s) title from actual inventor(s) (See headnote\*\*)

(h) Insert country, filing date, and basic applicant(s) for the/ or EACH basic application

(k) Insert PLACE of signing

(l) Insert DATE of signing

(m) Signature(s) of declarant(s)

Note: No legalization or other witness required

In support of the (a) Convention  
(b) SWINGLINE INC.

application made by

(hereinafter called "applicant(s)" for a patent (c)  
invention entitled (d) STAPLER MECHANISM

for an

I/~~We~~ (e) John P. Vota, Vice President-Operations of SWINGLINE INC., a corporation organized under the laws of the State of Delaware, U.S.A., of 32-00 Skillman Avenue, New York, State of New York, U.S.A. do solemnly and sincerely declare as follows:

1. ~~I am/We are the applicant(s).~~

(or, in the case of an application by a body corporate)

1. I am/~~We are~~ authorized to make this declaration on behalf of the applicant(s).2. ~~I am/We are the actual inventor(s) of the invention.~~

(or, where the applicant(s) is/are not the actual inventor(s))

2. (f) Paul Olesen, a citizen of the United States of America, residing at and whose postal address is 2863 Martin Avenue, Bellmore, State of New York, U.S.A.

is/~~are~~ the actual inventor(s) of the invention and the facts upon which the applicant(s) is/~~are~~ entitled to make the application are as follows:

(g) by virtue of an assignment executed November 7, 1985 and May 5, 1986, the applicant is the assignee of the inventor.

(Note: Paragraphs 3 and 4 apply only to Convention applications)

3. The basic application(s) for patent or similar protection on which the application is based is/~~are~~ identified by country, filing date, and basic applicant(s) as follows:

(h) United States of America filed November 18, 1985 by Paul Olesen; and  
United States of America filed May 7, 1986 by Paul Olesen

4. The basic application(s) referred to in paragraph 3 hereof ~~was~~ were the first application(s) made in a Convention country in respect of the invention the subject of the application.

Declared at (k) Long Island City, N.Y.

Dated (l) October 16, 1986

(m)

Vice President-Operations  
John P. Vota

To: The Commissioner of Patents

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**(12) PATENT ABRIDGMENT      (11) Document No. AU-B-63081/86**  
**(19) AUSTRALIAN PATENT OFFICE      (10) Acceptance No. 595543**

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(54) Title  
**HAND STAPLER MECHANISM**

International Patent Classification(s)  
(51)<sup>4</sup> **B25C 005/02**

(21) Application No. : **63081/86**

(22) Application Date : **23.09.86**

(30) Priority Data

(31) Number	(32) Date	(33) Country
<b>799080</b>	<b>18.11.85</b>	<b>US UNITED STATES OF AMERICA</b>
<b>860730</b>	<b>07.05.86</b>	<b>US UNITED STATES OF AMERICA</b>

(43) Publication Date : **21.05.87**

(44) Publication Date of Accepted Application : **05.04.90**

(71) Applicant(s)  
**SWINGLINE INC.**

(72) Inventor(s)  
**PAUL OLESEN**

(74) Attorney or Agent  
**PHILLIPS,ORMONDE & FITZPATRICK**

(56) Prior Art Documents  
**AU 118690 10083/43 B25C**  
**US 2915753**  
**GB 690310**

(57) Claim

1. A stapler having a magazine, a magazine slide, a cover frame and cover frame pivot sections pivotal about spaced-apart base pivot sections and wherein

said magazine slide is mounted for reciprocal movement in the magazine;

said magazine slide has end walls and the cover frame base pivot sections have flat surfaces;

an elongated spring with one end connected to the magazine slide having end walls and the other end connected to the cover frame;

such that upon pivoting the cover frame from a closed position wherein the elongated spring is under minimum tension to an open position the spring will urge magazine slide end walls into abutting relationship with the flat surfaces of the cover frame pivot sections to hold the cover frame in said open position.

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# COMPLETE SPECIFICATION

(ORIGINAL)

Class

Int. Class

Application Number:

Lodged:

63081/86

Complete Specification Lodged:

Accepted:

Published:

Priority

Related Art:

This document contains the  
amendments made under  
Section 49 and is correct for  
printing.

APPLICANT'S REF.: 282-127-007

132/em

Name(s) of Applicant(s):

SWINGLINE INC.

Address(es) of Applicant(s):

32-00 Skillman Avenue,  
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United States of America.

Actual Inventor(s):

PAUL OLESEN

Address for Service is:

PHILLIPS, ORMONDE AND FITZPATRICK  
Patent and Trade Mark Attorneys  
367 Collins Street  
Melbourne, Australia, 3000

Complete Specification for the invention entitled:

"STAPLER MECHANISM"

The following statement is a full description of this invention, including the best method of performing it known to applicant(s):

STAPLER MECHANISM

Small desk type staplers have been available for many years (U.S. Patent No. 2,702,384). A variety of techniques have been proposed for retracting the staple stick pusher during preloading of the stapler with the cover portion pivotally swung to an open-position (U.S. Patent Nos. 308,367, 2,551,838, 2,603,781 and 4,187,971).

Briefly, the present invention comprises a magazine with a magazine slide and base having base pivot sections about which a cover frame is pivotal. A spring has one end connected to the slide and the other end to the cover frame. The slide has end walls and cover frame side pivot sections have surfaces such that as the cover is pivoted open, a slide end wall and a frame side pivot section surface engage under spring urging to hold the cover in the open position.

It is a feature that the cover frame carries a flexible spring element having a base connected to the frame and engageable with the base pivot sections. The flexible spring element also carries the stapler driver.

It is a further feature that the stapler has a snap-on cover.

~~The following description refers in more detail to the various features of the stapler of the present invention. To facilitate an understanding of the invention, reference is made in the description to the accompanying drawings where the stapler is illustrated in a preferred embodiment. It is to be understood that the stapler of the present invention is not limited to the preferred embodiment as illustrated in the drawings.~~

Fig. 1 is a side elevational view of the stapler ~~partially opened with a portion of the base removed;~~



RB

3814r

With this in mind, the present invention provides a stapler having a magazine, a magazine slide, a cover frame and cover frame pivot sections pivotal about spaced-apart base pivot sections and wherein:

said magazine slide is mounted for reciprocal movement in the magazine;

said magazine slide has end walls and the cover frame base pivot sections have flat surfaces;

10 an elongated spring with one end connected to the magazine slide having end walls and the other end connected to the cover frame;

such that upon pivoting the cover frame from a closed position wherein the elongated spring is under minimum tension to an open position the spring will urge magazine slide end walls into abutting relationship with the flat surfaces of the cover frame pivot sections to hold the cover frame in said open position.

20 The following description refers in more detail to the various features of the stapler of the present invention. To facilitate an understanding of the invention, reference is made in the description to the accompanying drawings where the stapler is illustrated in a preferred embodiment. It is to be understood that the stapler of the present invention is not limited to the preferred embodiment as illustrated in the drawings.

Fig. 1 is a side elevational view of the stapler partially opened with a portion of the base removed;



Fig. 2 is a side elevational view, partially sectioned, showing the staple partially opened with the base removed;

Fig. 3 is a side elevational view, partially sectioned, showing the stapler fully opened with the base removed;

5 Fig. 4 is a plan view of the stapler fully opened with the base removed;

Fig. 5 is a sectional view taken along line 5-5 of Fig. 1;

Fig. 6 is a plan view of the stapler closed;

10 Fig. 7 is a side elevational view of the stapler;

Fig. 8 is a sectional view taken along line 8-8 of Fig. 7;

Fig. 9 is a front view of the stapler in the Fig. 7 open position;

15 Fig. 10 is a front view of the stapler closed but in the inoperative position;

Fig. 11 is a front view of the stapler in the driving position;

20 Fig. 12 is a rear view of the stapler in the Fig. 7 position;

Fig. 13 is a sectional side elevational view of the stapler cover disassembled;

Fig. 14 is a sectional side elevational view showing the spring-frame partially assembled with the cover;

25 Fig. 15 is a sectional side elevational view showing the spring-frame fully assembled with the cover; and

Fig. 16 is a bottom plan view of the cover.

~~Description of the Preferred Embodiment~~

30 In Figs. 1-8, stapler 10 includes base 11 (Figs. 1, 6 and 7) having magazine 12 and cover frame 13 pivotally mounted about pin 14 which is journaled in upstanding spaced-apart base ear sections 16 and 17. Base 11 includes base ear sections 16, 17, ear support portions 19, 20 and



anvil portion 18. Cover frame 13 carries cover 63 as further described (Figs. 13-16).

Magazine 12 includes staple stick support bottom 21, sides 22, 23 and upstanding notch-forming front pieces 24, 26. Sides 22, 23 have longitudinal slots 25, 27 respectively, to receive detents 28, 29 positioned on the inside of the ears 16, 17. Housed in magazine 12 is staple stick pusher 31 which is urged forward or rearward by cover spring 32. Pusher 31 includes sides 34, 35, end piece 36, slot engaging slide projections 37, 38 (see Fig. 5) and spring hook 39 (see Fig. 4). Pusher 31 includes slit openings 34b and 35b.

Cover frame 13 has driver spring 15 connected to it by rivet 40. Driver spring 15 includes horizontal base portion 41 with slot openings 42, 43 forming spring finger pieces 44, 46 which rest on ear support portion 19, 20. Spring 15 also includes arm portion 47 and staple driver blade 48. Blade 48 has a rectangular opening 51 through which cover extension 52 extends. Extension 52 guides blade 48 as it is pushed down to drive a staple and thereafter moves up under spring action. All portions of spring 15 are preferably integrally formed of spring steel. Cover frame 13 has opening 49 to accommodate the spring. Cover 13 also includes side pivot sections 53, 54 which carry circular journal openings 55, 56 for rotation about pin 14. Sections 53, 54 have flat bearing surfaces 58, 59 respectively.

Turning to Figs. 1-4, it is seen that as cover 13 is opened magazine pusher spring 32 urges the staple pusher 31 rearwardly until pusher flat end walls 34a, 35a engage flat surfaces 58, 59 of cover side pivot sections 53, 54 under spring tension to hold cover 13 in the open position (Figs. 3 and 4). The force of spring 32 is sufficient to hold pusher end walls 34a, 35a against cover frame surfaces 58, 59 to cause cover frame 13 to remain in the open position without



the operator holding it in such position. This feature facilitates loading staple sticks.

5 With respect to Figs. 5-8, magazine longitudinal openings 25, 27 carry pusher slide projections 37, 38 and detents 28, 29 respectively. Spring 15 includes crown portion 15a with cutout portions 30a, 30b creating narrow front edges 15b, 15c (Fig. 6). Also shown is spring crown opening 15d.

10 In Fig. 10, cover frame 13 is positioned in magazine 12 with blisters 60, 61 providing a forced fit between frame 13 and magazine 12.

15 Turning finally to Figs. 13-16, cover 63, preferably made of moldable plastic material, includes cover top portion 64, side walls 66a, 66b including side wall skirt sections 66c, 66d (see, in particular, Figs. 13 and 16). Cover 63 also includes forward connecting lips 67a, 67b, rear deformable connecting ledge 68 and locating button 69 for ready engagement and assembly of spring 15, cover frame 13, and cover 63.

20 Forward connecting lips 67a, 67b receive the front edges 15b, 15c of spring 15 (see Figs. 6, 14 and 15). As spring front edges 15b, 15c are urged under lips 67a, 67b, locating button 69 enters spring hole 15d to locate spring 15 and to prevent its rearward movement relative to cover 63 (Fig. 14).  
25 Next, cover frame 13 is pressed toward cover top 64 causing rear connecting ledge 68 to deform until frame 13 snaps into the fully engaged position shown in Fig. 15. Also shown are side pivot section 53, rivet 70, cover extension 52 and cover ribbing 71.

30 It is thus seen that cover 63 can be readily assembled by "snapping" it on staple 10 without the use of tools.

The claims defining the invention are as follows:

1. A stapler having a magazine, a magazine slide, a cover frame and cover frame pivot sections pivotal about spaced-apart base pivot sections and wherein

said magazine slide is mounted for reciprocal movement in the magazine;

said magazine slide has end walls and the cover frame base pivot sections have flat surfaces;

10

an elongated spring with one end connected to the magazine slide having end walls and the other end connected to the cover frame;

such that upon pivoting the cover frame from a closed position wherein the elongated spring is under minimum tension to an open position the spring will urge magazine slide end walls into abutting relationship with the flat surfaces of the cover frame pivot sections to hold the cover frame in said open position.

2. The stapler of claim 1 in which the cover frame includes a spring metal drive element having a base drive element mounted on the cover frame and a flexible arm element wherein the base drive element has sections which engage the base pivot sections as the arm element is flexed.

3. The stapler of claim 1 which stapler includes a spring metal drive element connected to the cover frame and includes a cover having forward connecting lip means for connection to the spring metal drive element and rear deformable connecting ledge means connectable to the cover



frame whereby the cover is readily assembled with the spring drive element and cover frame.

4. A stapler substantially as hereinbefore described with reference to what is shown in the accompanying drawings.

DATED: 5 July, 1989

PHILLIPS ORMONDE & FITZPATRICK

Attorneys for:-

SWINGLINE INC.,

*David J. Fitzgerald*

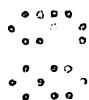
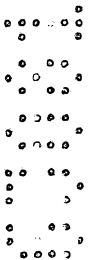


FIG. 1

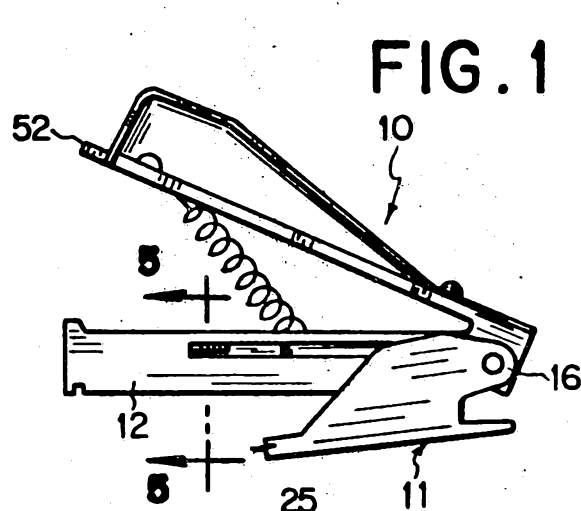


FIG. 2

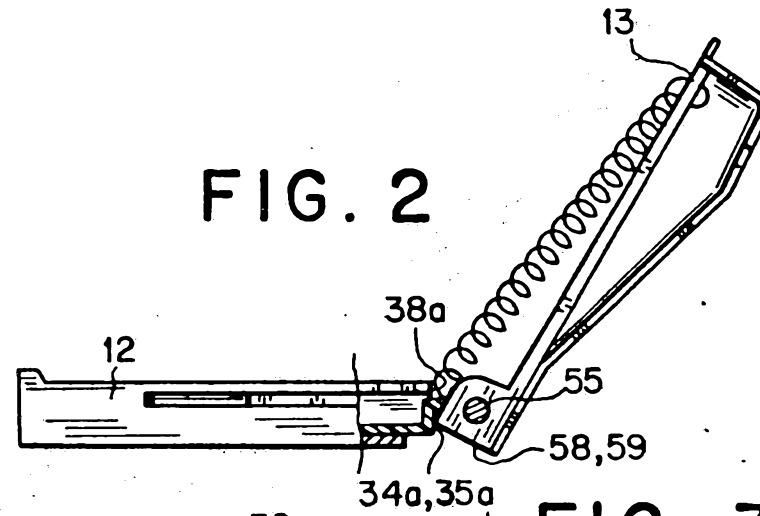


FIG. 3

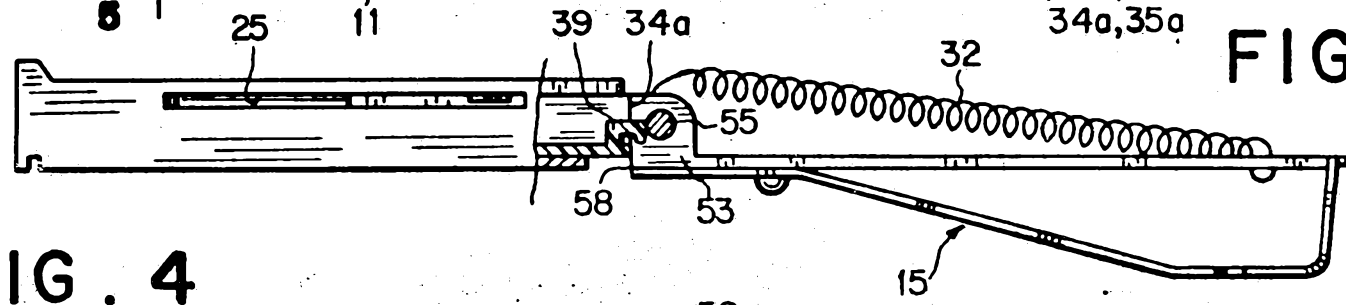


FIG. 4

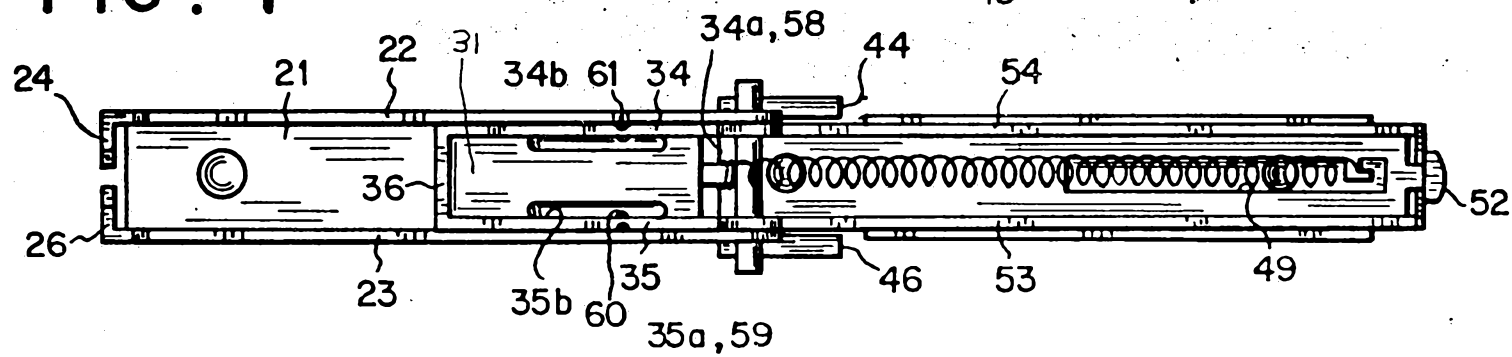


FIG. 5

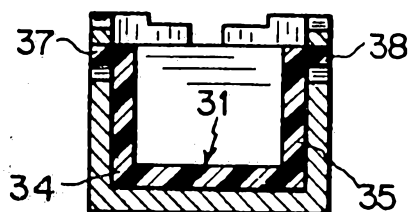


FIG. 8

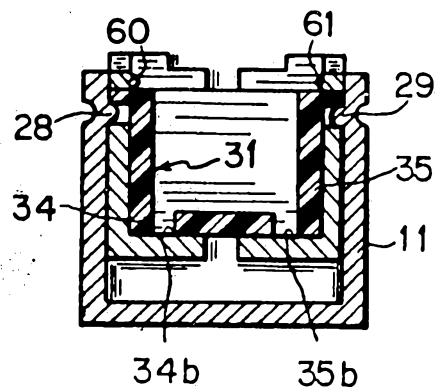


FIG. 6

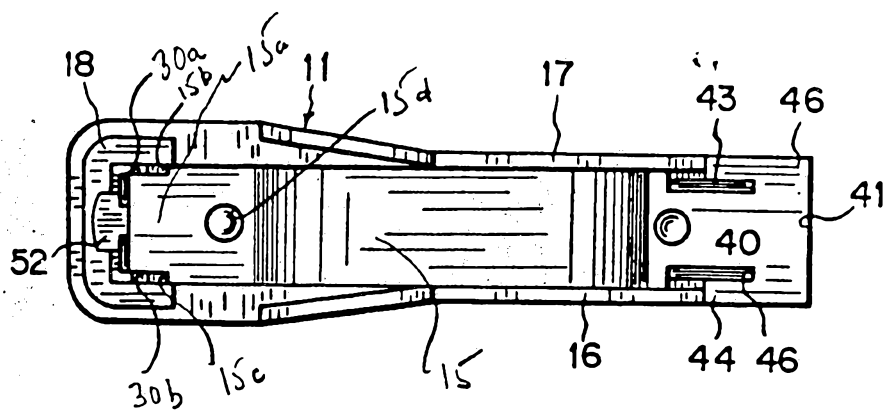


FIG. 7

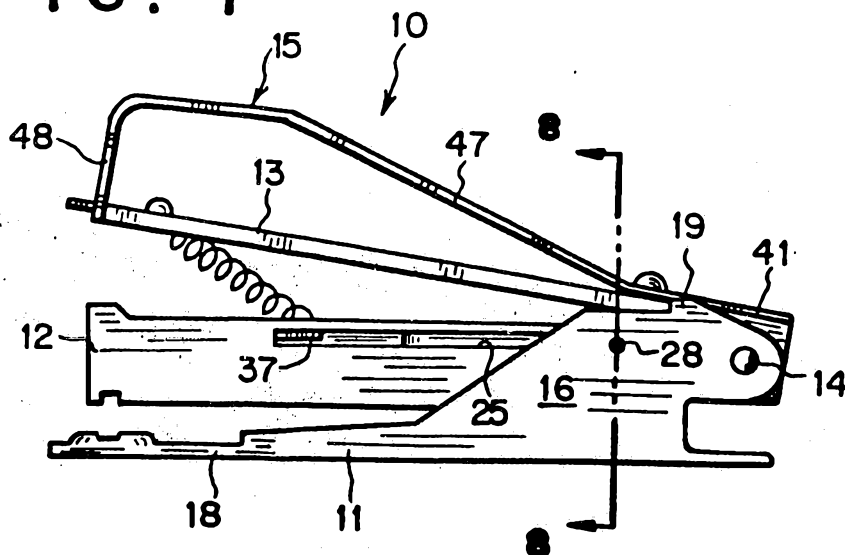


FIG. 9

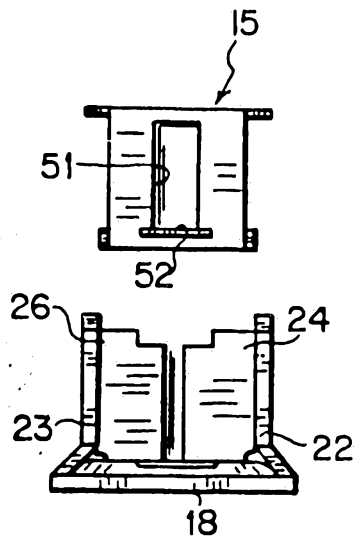


FIG. 10

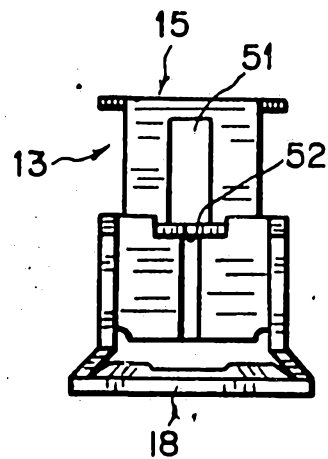


FIG. 11

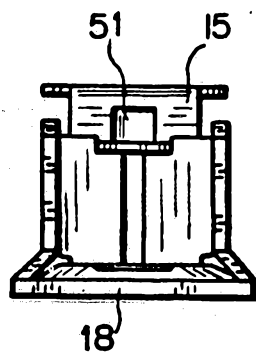


FIG. 12

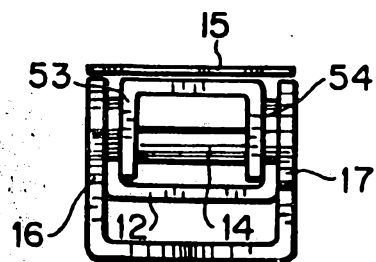


FIG. 13

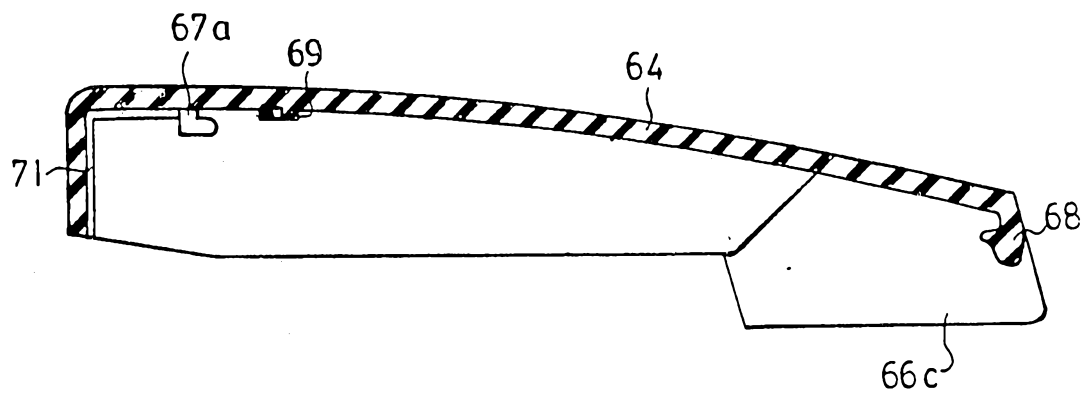


FIG. 14

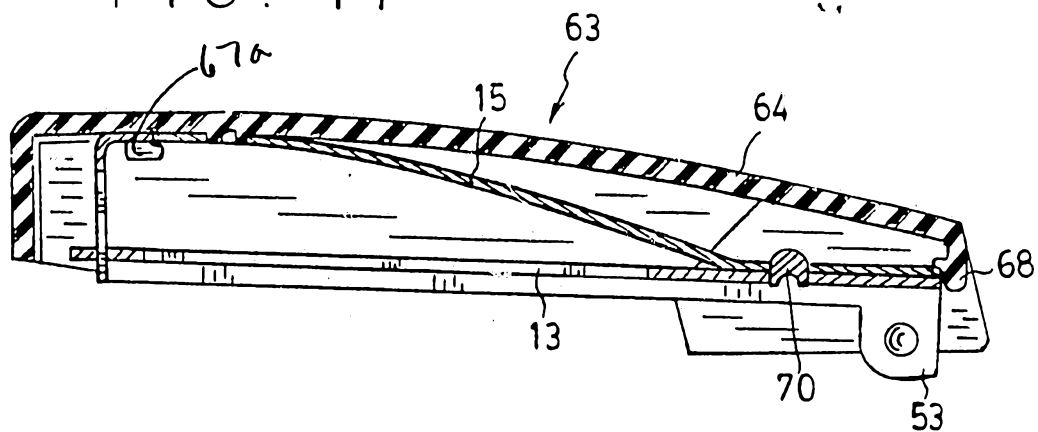


FIG. 15

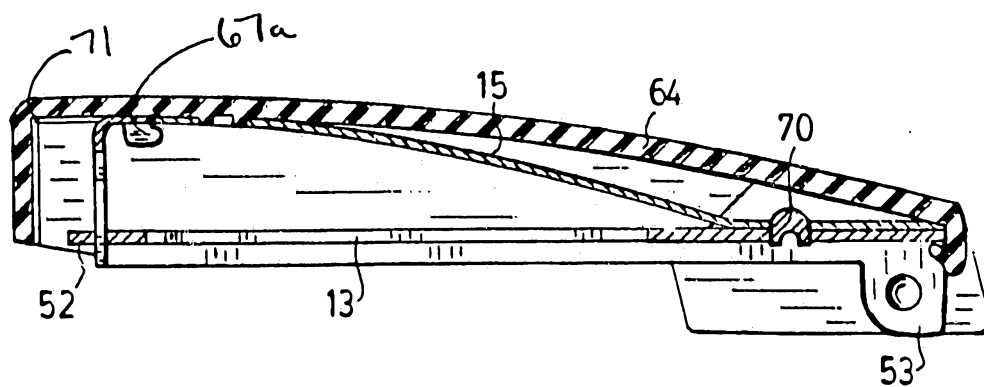


FIG. 16

