United States Patent [19]

Giulie

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[54] **TOOL FOR INSERTING PAPER INTO SPINES**

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[52] **U.S. Cl.** ..... **11/1 R;** 11/1 AC

[51] **Int. Cl.** **B42f 1/02**

[58] **Field of Search** ..... 11/1 R, 1 AC

[56] **References Cited**

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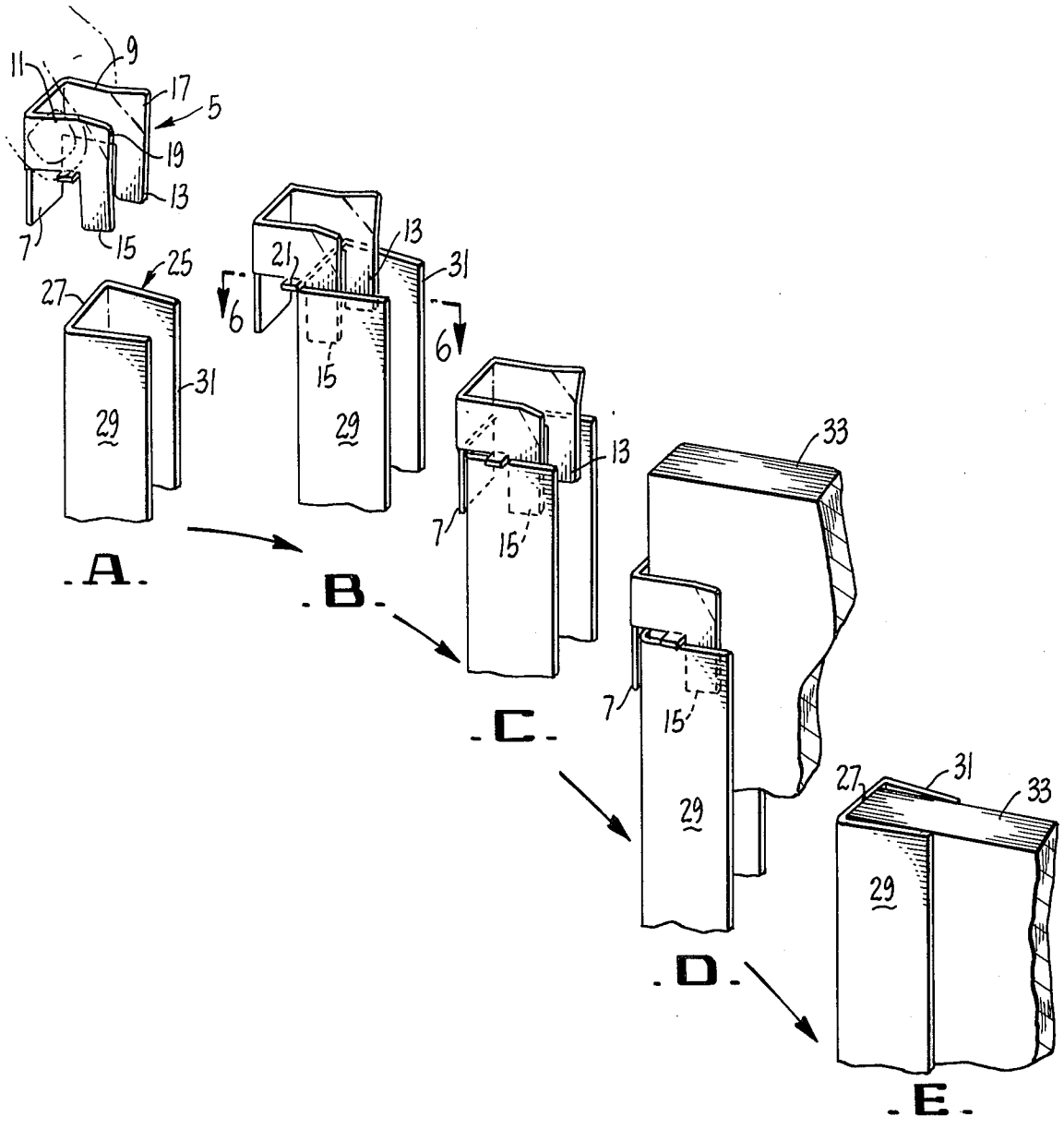
Primary Examiner—Lawrence Charles

Attorney, Agent, or Firm—Robert G. Slick; John C. Barnes

[57] **ABSTRACT**

A simple, small tool is provided for the insertion of paper into plastic slide on spines. Preferably the tool is made of metal and its structure is such that it permits the full capacity of the spine to be used.

2 Claims, 10 Drawing Figures



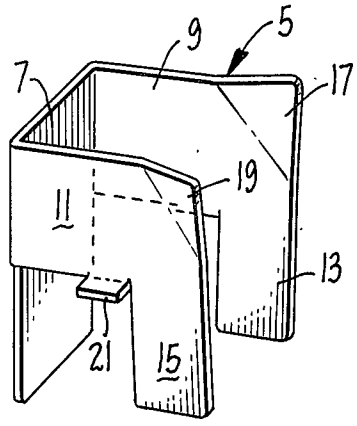


FIG. 1.

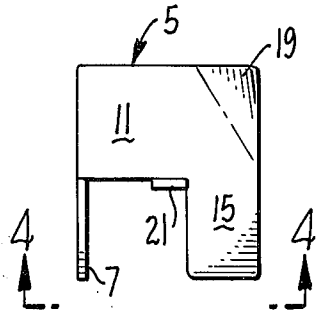


FIG. 2

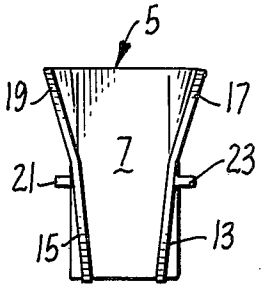


FIG. 3.

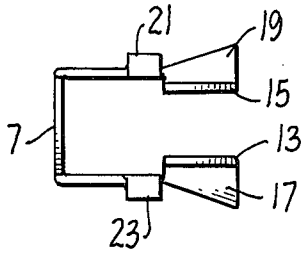
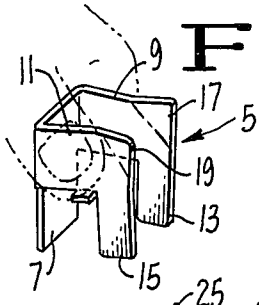
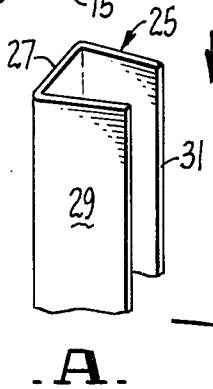
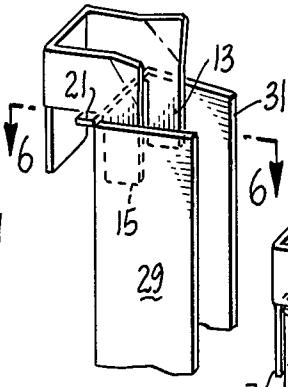


FIG. 4.

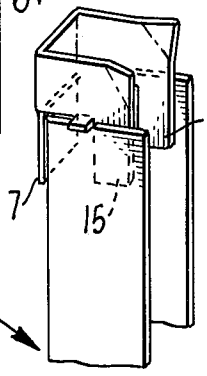




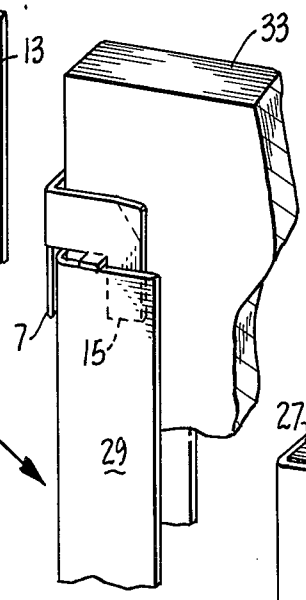
A.



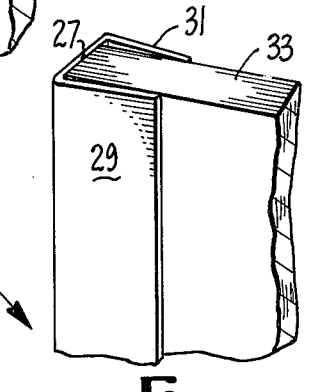
B.



C.



D.



E.

FIG. 5.

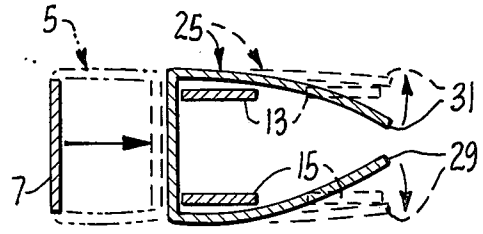


FIG. 6.

TOOL FOR INSERTING PAPER INTO SPINES

SUMMARY OF THE INVENTION

Plastic spines are frequently used for the binding of pricelists, catalogs, reports and the like. These spines are formed as a plastic channel in the general form of a U with a back portion which lies parallel and against the edge of a sheaf of papers and the two legs which lie on each side of the edge and grip the papers between them. Such spines are formed of a spring-like plastic with the free edges of the legs normally in close proximity to each other so that the legs must be sprung outwardly for the insertion of a sheaf of papers and the spring action retains the sheaf of papers in the manner of a bound volume.

Ordinarily it is difficult to insert the materials into such a spine and various devices have been proposed in the past. One is a funnel-like device which holds a sheaf of papers and temporarily forms a stiff backing which can be forced between the legs of the spine and then withdrawn. The difficulty with such insertion devices is that they are relatively bulky and furthermore, they occupy a definite amount of space between the inner portions of the legs of the spine so that they prevent the spine from ever being filled to its full capacity.

In accordance with the present invention, a simple insertion device is provided which can be formed simply of an inexpensive stiff material such as sheet metal. The device is easy to use and does not have any portion inserted adjacent to the junction between the back and the legs of the spine so that the rear portion i.e., the widest point, of the spine is completely unobstructed, allowing full utilization of the spine.

The device of the present invention is easy to insert and allows the insertion of the maximum number of papers into the spine. On the other hand it is flexible so that it equally is adapted to the insertion of only a few papers in the spine.

Various other features and advantages of the invention will be brought out in the balance of the specification.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a device embodying the present invention.

FIG. **2** is a side view of the paper insertion device.

FIG. **3** is an end view of the device from the open end of the U.

FIG. **4** is a bottom plan view on the line **4—4** of FIG. **2.**

FIGS. **5A**, B, C and E are step-by-step perspective views showing how the device of the present invention is used for binding a sheaf of papers.

FIG. **6** is a section on the line **6-6** of FIG. **5B.**

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings by reference characters, the device of the present invention is generally designated **5** and includes a back **7** and arms **9** and **11** which extend at right angles from the top of back **7.** It will be noted that the back **7** is about twice as high as the height of the arms **9** and **11.** The outer portion of arms **9** and **11** are formed into two downturned legs **13** and **15** which extend downwardly to terminate on the same level as back **7** and are spaced from the back to leave an open space therebetween. The upper portions

of the arms **9** and **11** are turned outwardly at an angle of about 15° to form the wings **17** and **19.** Preferably there are two small outstanding tabs **21** and **23** extending from the arms, just inside the leg portions **15** and **13.** These are not absolutely essential to the operation of the device but they do aid in the insertion operation as is later described.

The method of using the device is shown in FIGS. **5** and **6.** Referring specifically to FIG. **5A**, the device of the present invention is designed to be used with a plastic spine or backing member generally designated **25.** Such plastsic backing members are well known to those skilled in the art and consist of a generally U shaped channel having a back **27** and two legs **29** and **31.** The device is made of a springy plastic and the legs **29** and **31** normally spring together somewhat so that when papers are inserted between them, they grip the papers.

To use the device of the present invention one first grasps the insertion device **5** between the thumb and index finger and presses inwardly on the arms **9** and **11,** pinching the legs **13** and **15** somewhat together whereupon the legs can be inserted into the spine **25** near the back thereof at its widest part. Since the legs **13** and **15** are relatively narrow, very little pressure is needed to insert the legs adjacent to the back **27** as is shown in FIG. **5B** since at this point the sides **29** and **31** are spaced apart by substantially the full width of the back **27.** After the device is inserted as is shown in **5B**, it is now pushed forward so that the back **7** of the insertion device lies against the back **27** of the spine as is shown in FIG. **5C.** It will be noted that the tabs **21** and **23** are now resting on the top of the spine so that any tendency for the insertion device to rotate is restrained. Now a sheaf of papers **33** is inserted into the U-shaped space, which operation is facilitated by the outturned wings **17** and **19.** Since the spine **25** has now been expanded to substantially the same width as the back, papers can be pushed against the back **27** of the spine and then pushed downwardly between the legs **9** and **11** of device **5** and the legs **29** and **31** of the spine. After the papers have been fully inserted, the insertion device **5** can easily be pulled out, leaving the bound sheaf of papers as is shown in FIG. **5E.**

It will be particularly noted that during the insertion operation, there is no obstruction between the arms **29** and **31** at the widest point of the spine **25** so that the full width of the back **27** is available for the insertion of the sheaf of papers. In this way, the full width of the spine may be utilized which not only results in the possibility of inserting more sheets into a given spine, but also secures a neat result since the spine is completely filled and the arms **29** and **31** held in a parallel relationship.

As is pointed out above, the tabs **21** and **23** may or may not be used. They are helpful in inserting the sheaf of papers since they prevent any tendency of the insertion device to rotate or get out of position.

The device of the present invention is preferably formed from a single sheet of a thin, stiff material such as steel but it can be fabricated of any thin, strong material.

I claim;

1. An insertion device for inserting a sheaf of papers into a spring spine comprising in combination:

a. a flat back member,

b. arms extending at substantially right angles from the top sides of said back member, said arms ex-

tending from only the top portion of said back whereby the bottom portion of said back is free of said arms,

c. downwardly extending legs from the terminal ends of each of said side members, said legs extending downwardly to substantially the same level as said back member, said legs being spaced a substantial distance from said back member, and

d. the upper portions of said arm member being formed outwardly at an angle to facilitate the insertion of papers therebetween.

2. The structure of claim **1** wherein tabs extend outwardly from each of said arms between said back member and said legs.

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