March 28, 1944. E. E. KRUMWIEDE 2,345,484

FILE FASTENER

Filed July 25, 1942

Fig. 1

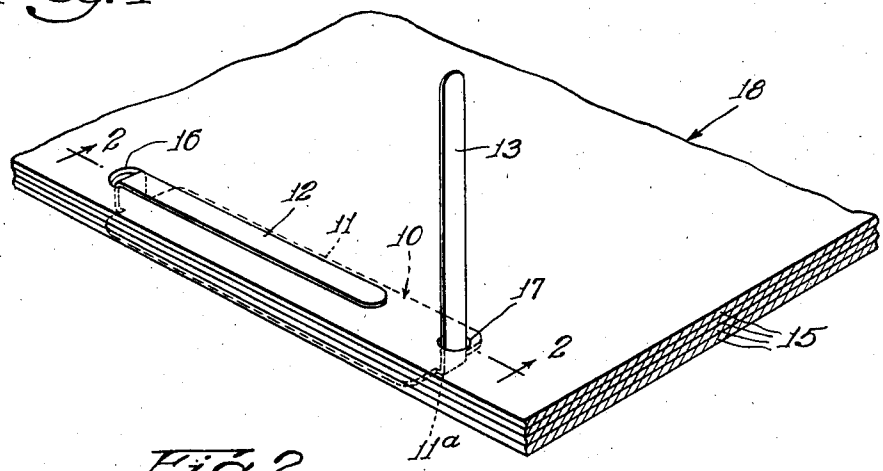


Fig. 2

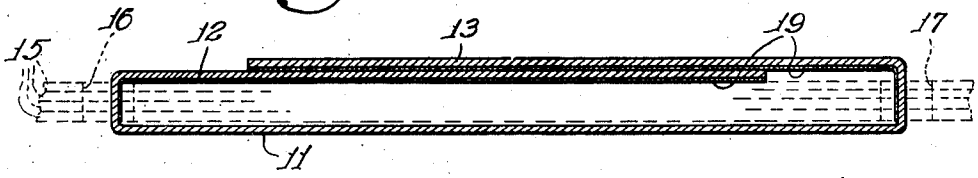




Fig. 5

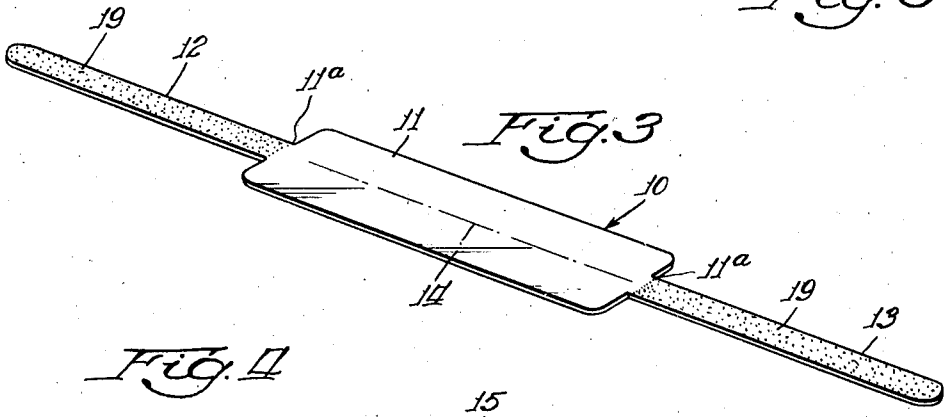
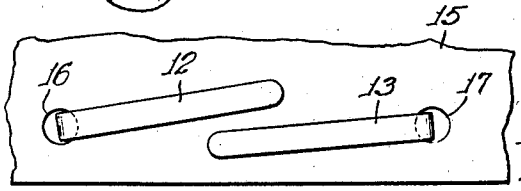


Fig. 3

Fig. 4



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FILE FASTENER

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Application July 25, 1942, Serial No. 452,279

2 Claims. (Cl. 24—153)

This invention relates to the art of making and using file fasteners of the class embodying a base and flexible tongues extending from each end of the base adapted to be passed through perforations in a margin of a file of papers or the like to hold the papers together. the ends of the tongues being then bent down into a plane substantially parallel with the sheets and releasably secured in such position to retain the fastener and file of papers together until it is desired to open or remove the fastener for withdrawing a sheet or sheets from the file, or, conversely, adding to it.

Such fasteners have heretofore commonly been made of metal or have been made in two parts, an additional part being considered necessary to act as a keeper for holding down the ends of the tongues. The accumulation of such metal or two-part fasteners in a filing system has meant the building up of objectionable bulk and weight at the file margins, requiring enhancingly heavier and roomier file containers such as drawers, cabinets or the like.

The present invention, among other objects, aims to provide a file fastener of this general type which may be formed of a single piece of preferably non-metallic fiber material provided with integral means for retaining the ends of the tongues releasably in position substantially in the plane of the sheets which the file comprises, thus materially reducing the cost of such fasteners while simplifying their operation and effecting marked savings not only in the cost of manufacture but also in critical materials and in the weight and capacity of the file containers required.

Another object of the present invention is the provision of an improved method of using such fasteners to make up a file of papers or the like with enhanced rapidity and expedition, thus conserving the time and labor of an office staff in the handling of such files.

These and other objects and advantages will be apparent and the invention will be readily understood from the following detail description, taken together with the accompanying drawing showing an embodiment of the invention as made and as used, the invention being inclusive of both article and method.

In the drawing—

Figure 1 is a perspective view illustrating my present invention in an intermediate step in its use with a file of paper sheets or the like;

Figure 2 is an enlarged sectional view taken on the line 2—2 of Fig. 1 but showing the file, with the invention associated therewith, in normal condition;

Figure 3 is a perspective development view of a fastener of my invention itself;

Figure 4 is a plan view showing a somewhat modified use of the invention; and

Figure 5 is a fragmentary longitudinal cross-sectional view of a further modification.

Referring to the illustrative drawing, in detail, I have indicated my improved fastener generally by the numeral 10 which desirably comprises a base element 11 and tongues 12 and 13, the whole being elongated in the direction of its longitudinal axis 14 and desirably stamped out integrally, or otherwise rapidly formed, from a plate-like flexible material such as light fibreboard which is capable of being bent right-angularly many times without splitting or cracking. In practice, the tongues 12 and 13 are first bent upwardly at right-angles to the base 11, as at 11a adjacent where they join the base, and then paper sheets 15, having perforations 16 and 17 therein, equally spaced apart along one margin thereof, are placed thereon, with the tongues 12 and 13 extending upwardly through the perforations 16 and 17 respectively. As is well known in the art, the sheets 15 may be letters, catalogue pages, price lists, account leaves, or other sheets which are desired to be retained together in a single useful file with say the oldest sheet next to the base member 11 of the fastener, and each succeeding sheet 15 as it is added taking its place upon the tongues 12 and 13 as the sheet then uppermost. A suitable punch, which need not be here described, may be provided for the punching of the perforations 16 and 17 if the sheets 15 do not come already so perforated.

Further, in practice, the tongues 12 and 13 are again bent at right-angles in the plane of the uppermost sheet 15 and are disposed to lie substantially parallel with the sheets. Thus the file 18 as a whole comprises the sheets 15 and fastener 10.

In accordance with the present invention, the tongues 12 and 13 themselves carry means for releasably retaining the tongues in position parallel with the sheets 15 so as to make the file 18, comprising the sheets and fastener, an integrated unit which may be readily handled in the manner of a book, with the fastener constituting the binding means and the sheets 15 being openable from their margins opposite to the fastener for examination, perusual, or entry of account or other data.

In this instance to provide such self-carrying means, I have shown the tongues 12 and 13 each faced as at 19 with a coating of adhesive upon their faces which lie uppermost when the base member is in position as shown in Fig. 3 and ready to have the tongues 12 and 13 bent upwardly at right-angle to have placed thereon the sheets 15. The adhesive coating 19 is of a material which is well known to the art and available upon the market, and it is sufficient here to say that it is a somewhat tacky, non-drying substance, which is impervious to water and may be used without moistening, being energizable by pressure on the opposite face of the tongue, but which nevertheless is readily releasable by the use of sufficient force to overcome its inherent holding power while at the same time the adhesive will remain upon the tongues, being desirably of a character which has greater affinity for the surface of the tongue than for the surface upon which it is pressed.

A material which is suitable for the facing 19 is one known as Scotch drafting tape and is readily purchasable upon the market under this name. The facing 19 in such instance may, as shown in Figure 5, include a carrier layer 20 between the adhesive and the tongue 12 or 13 as the case may be, the carrier layer 20 also being serviceably of a flexible, fibrous material and itself permanently adhered to the tongue 12 or 13 as by a suitable fast-holding glue as indicated at 19a of, say, a resinous character, or other appropriate securing means. The carrier layer 20 may be impregnated with a suitable adhesive which will cause it to adhere to the surface of the tongue 12 and which will adhere the coating 19b thereto, such coating having advantageously a rubber constituent, somewhat as in rubber cement. To aid in releasing a tongue from say a sheet 15, the carrier layer 20 and consequently the coating 19b may be given a somewhat crinkled character as by the rugosities 21 therein.

As shown in Fig. 2, the tongue 12 may be bent over onto the uppermost sheet 15 and adhered thereto by the adhesive 19, and then the tongue 13, which is shown upright in Fig. 1, may be bent down also parallel with the sheets 15 but superposed upon the already bent tongue 12, the adhesive 19 upon the now under face of the tongue 13 releasably adhering this tongue to the other tongue 12. As an alternative, and as shown in Fig. 4, the tongue 12 may be bent parallel with the sheets 15 but somewhat at an angle with respect to the principal axis 14 of the fastener, this being permitted by the flexibility of the material of the fastener, and the tongue 13 may also be bent somewhat at an angle with respect to the principal axis 14 but in the opposite direction from the tongue 12, so that both may lie side by side in the same plane upon the surface of the uppermost sheet 15 and parallel therewith.

When, now, it is desired to withdraw a sheet or sheets from the file 18, for example, or to add another sheet or sheets to the file, the tongues are grasped, say at their tips, and are pulled up to the vertical position, as that shown occupied by the tongue 13 in Fig. 1, at which time, both tongues being in this position, sheets may be readily added to or withdrawn from the file 18. Thereupon, the tongues are again bent into the plane parallel with the sheets 15 and adhered to the uppermost sheet of the file, or one to the other, as already described.

It will be understood that as more sheets 15 are added to the file 18, the file will become correspondingly thicker and that less of the tongues 12 and 13 will project above the file, as sheets are placed thereon. As this occurs, also, a less extent of the tongues will lie parallel with the sheets when the tongues are so bent, but it has been found that, constructed and arranged as here disclosed, the tongues, if a sufficient length thereof protrude to be bent over onto the sheets 15 any reasonable distance, will have sufficient holding power, by reason of the adhesive 19, to prevent accidental release of the tongues from the uppermost sheet of the file and to retain the tongues in such holding position until they are again manually released by being grasped at their extremities by the fingers of the operator and pulled away from the uppermost sheet 15. Also, it will be understood, that, as in common with file fasteners of this type, varying sizes of fasteners may be provided having their base member 11 say of equal length but having their tongue members 12 and 13 of varying lengths to accommodate files of varying thicknesses.

The tongues are desirable attenuated at their extremities, as in this instance by rounding, to facilitate entering the tongues into the perforations, and thus guiding the tongues.

Thus following my invention, I have disclosed a simple and economical file fastener of the class herein referred to and a rapid and economical method of making up files of correspondence or the like with the use thereof. I have found that repeated applications of the tongues so coated do not dissipate the adhesive or materially diminish their holding power, and consequently that file fasteners constructed in accordance with my invention may be opened or closed, as described, a large number of times without substantial deterioration of their effectiveness as fasteners. Furthermore, the fastener here disclosed may be made so cheaply that it may be discarded after fewer operations than would be economical with say a metal fastener or one which is made of two parts.

Having described my invention, I claim:

1. As an article of manufacture, a one-piece file fastener of fibrous material comprising an elongated base portion, a pair of tongues reduced in width from the width of the base portion extending respectively from opposite ends of the base portion, whereby shoulders are provided between the base portion and said tongues, and the tongues are adapted to be passed through perforations in paper sheets and then bent down thereon to hold the sheets together with the faces of the tongues which are uppermost when the tongues and base portion are in the flat facing the sheets when the tongues are bent down, and integral means including a pressure energizable releasable adhesive coating carried on the faces of the tongues which are uppermost when the base portion and tongues are in the flat for retaining the tongues in said bent down position on the sheets while permitting repeated removal therefrom without marring the sheet or dissipating the adhesive, said base portion being without the adhesive coating and the extremities of the tongues being attenuated for guiding the tongues.

2. The structure of claim 1 wherein the coating is carried by an intermediate layer of rugous material carried by each tongue.

ELMER E. KRUMWIEDE.