April 27, 1943. W. ZIMMERMANN 2,317,507

TIE FOR NEWSPAPERS AND THE LIKE

Filed Aug. 31, 1942

Fig. 1.

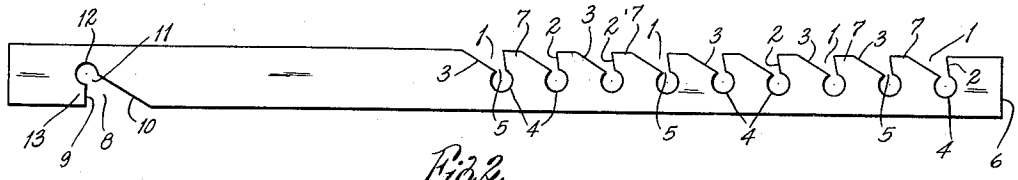


Fig. 2.

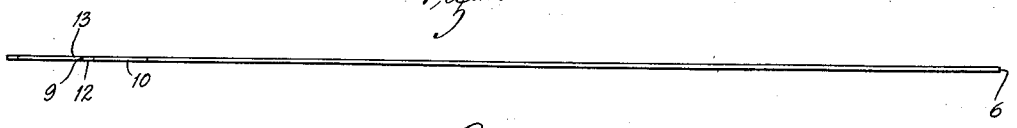


Fig. 3.

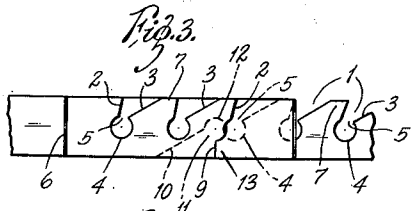


Fig. 4.

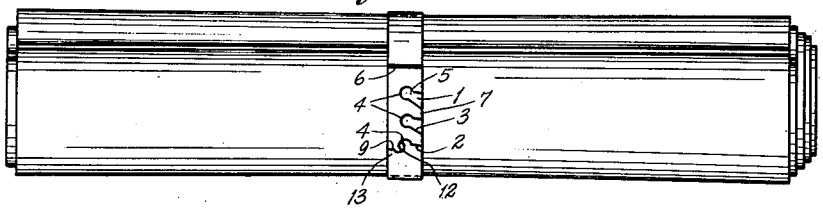


Fig. 5.

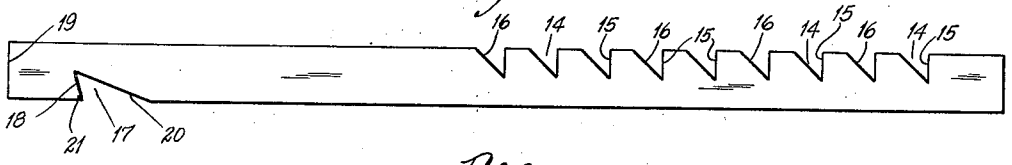
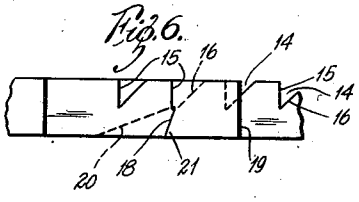


Fig. 6.



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UNITED STATES PATENT OFFICE

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TIE FOR NEWSPAPERS AND THE LIKE

Wilmer Zimmermann, St. Louis, Mo.

Application August 31, 1942, Serial No. 456,747

2 Claims. (Cl. 24—17)

This invention relates to ties for newspapers and the like; and has special reference to a tie comprising a strip made of a plastic substance or other pliable material having interengaging devices near its ends whereby the tie may be secured around a roll of one or more newspapers or other articles.

Under existing conditions and regulations, restrictions have been imposed preventing the use of wire or metallic strips for various purposes. Newspapers and the like are, in many instances and localities, delivered to customers and subscribers rolled, and bound into rolls by sections of wire. It is substantially necessary to secure the newspapers in rolled form in order that the newspapers may be thrown by the carriers or distributors, and also in order to prevent the newspapers from being blown apart and becoming separated during or after delivery. The wires heretofore used are substantially circular in cross-section and are so very bendable or flexible that they do not tear or otherwise seriously deface or damage the sheets of the newspaper with which they are contact. Due to the restrictions making such wires unavailable, and the continuing necessity for delivery of newspapers to customers and subscribers, the serious problem has arisen of providing a satisfactory substitute for the wires. This serious problem has resulted in considerable difficulty, and is solved by the present invention.

Objects of the present invention are to provide a tie for use in securing newspapers and the like in rolled or in packaged form and provided with novel structural elements and formations whereby the end portions of the tie may be interengaged to hold the tie about and around the rolled newspaper or other article; to provide a tie in the form of an inelastic strip or band and composed essentially of non-metallic material or substance which is not flimsy, and yet is substantially pliable and bendable along its edges so that it will not cut or tear or otherwise deface or damage the sheets of newspaper or other paper or like materials against which the edges and corners of the strip or band engage and press; to provide a tie composed of a non-metallic plastic substance having along one end margin thereof a series of notches of novel formation having enlargements at their inner portions approximately midway between the side edges of the strip and providing hooks adapted to interengage with a notch and hook device near the opposite end margin in a manner to hold the tie about and around a rolled newspaper or other article and to prevent lateral movement of the overlapping end portions and consequent disengagement of said portions; and to provide a tie composed of a strip of non-metallic plastic material having a hook device adjacent to one end and a series of shoulders extending longitudinally from the opposite end adapted to be engaged by said hook and thereby hold the band secured closely around a rolled newspaper or similar article, leaving the side edges of the band bendable and yielding so as not to tear or damage the sheet of newspaper or other paper engaged thereby.

Other objects will be apparent from the following description, reference being made to the annexed drawing, in which—

Fig. 1 is an extended plan view showing one form of my improved tie for newspapers and the like.

Fig. 2 is a side elevation thereof showing the thinness of the band in comparison with its width as shown in Fig. 1.

Fig. 3 is a fragmentary view showing the interengaged end portions of the tie.

Fig. 4 is a view showing the tie secured about and around a newspaper in rolled form.

Fig. 5 is an extended plan view showing a modification of the invention.

Fig. 6 is a fragmentary view showing the interengaged end portions of the tie shown in Fig. 5.

The specific form of the tie for newspapers and the like which is shown extended in Fig. 1 comprises an elongated inelastic strip or band composed essentially of non-metallic material or substance such as cardboard or some available plastic. The strip must not be flimsy; and it must be sufficiently pliable and bendable along its edges so that it will not cut or tear, or in any way seriously deface and damage the rolled newspaper or other material against which the corners of the strip engage. The longitudinal corners of the pliable and bendable strip are formed so that they do not cut into the rolled newspaper or other article, as a metal strip would cut unless provided with rounded corners.

As shown, the inelastic strip is elongated and relatively wide and thin. The strips may be cut from suitable cardboard or sheets formed of plastic material. Along one end margin of the strip a longitudinal series of notches 1 are formed. These notches are spaced apart longitudinally of the strip so that they do not open into or communicate with each other. Each notch is formed by cutting out a portion of the strip to provide a wall 2 extending transversely from one side edge toward the opposite side edge of the strip; and

to provide a wall 3 inclining from the same side edge of the strip toward intersection with the wall 2. Each notch 1 opens into a circular hole 4 through a relatively narrow mouth or opening 5. The relatively narrow mouth or opening 5 is formed by intersection of the walls 2 and 3 with the wall of the hole 4.

The wall 2 of each notch 1 constitutes substantially a continuation of a radius of the hole 4, so that approximately one-half of the opening 4 is between the plane of the wall 2 and the end 6 of the strip from which the series of notches 1 extend. Thus, the openings into the notches 1 at the side edge of the strip are very substantially wider than the mouths or openings 5 of said notches into the holes 4; and the holes 4 are of less diameter than the width of the outer portions of the notches 1 in order to provide sufficient strength for the several tongues 7 formed between the several holes 4 and the side edge of the strip. All of the notches 1 are formed along the same side edge of the elongated strip.

An interengaging device is formed near the opposite end of the strip and is adapted to cooperate with the tongues 7 and notches 1—4 in order to secure and hold the tie around a rolled newspaper or other article. Said interengaging device comprises a notch 8 formed by cutting or removing a portion of the opposite margin of the strip to provide a wall 9 and a wall 10 inclining substantially from the side edge of the strip toward intersection with the wall 9. The notch 8 has a relatively narrow mouth or communication 11 into a round hole 12 similar to the round holes 4. The wall 9 which extends almost transversely of the strip is an approximate extension of the radius or diameter of the hole 12, thus providing a tongue 13 adapted to cooperate with any one of the tongues 7 along the opposite end margin of the strip to hold the end portion of the strip interengaged or tied around a rolled newspaper or other article, as shown in Figs. 3 and 4. The tongues 7 and 13 are pliable and bendable and are easily interengaged to secure and tie the device around a roll of newspapers or other articles, and yet are not objectionably flimsy.

When the device is made of cardboard or plastic sheet material having the characteristics of cardboard, it may be easily torn or broken manually and detached without cutting or otherwise injuring the hand of the person tearing or breaking and detaching the tie and without cutting, tearing or otherwise damaging the newspaper. In these particulars, the device meets an existing need and requirement, and also differs in essential characteristics and functions from metal strips or bands which could not be used in this manner.

The device shown in Figs. 5 and 6 also comprises an elongated and relatively wide and thin inelastic strip which may be cut from suitable cardboard or a sheet formed of plastic material. The series of notches 14 formed along one end margin of the strip are spaced apart longitudinally so that they do not open into or communicate with each other. Each notch is formed by cutting out a portion of the strip to provide a wall 15 extending transversely toward the opposite side edge of the strip; and to provide a wall 16 inclining from the side edge of the strip in which the notch is formed to intersection with the wall 15 approximately at the longitudinal axis of the strip.

An interengaging device is formed near the opposite end of the strip and comprises a notch 17 formed by cutting or removing a portion of the margin of the strip. The wall 18 of said notch 17 inclines toward the adjacent end 19 of the strip. The wall 20 of the notch 17 inclines from the side edge of the strip in which the notch is formed to intersection with the wall 18 approximately at the longitudinal axis of the strip. The walls 18 and 20 forming the notch 17 provide a hook 21 which is pliable and easily bendable. The strip is secured around a rolled newspaper, or around rolled newspapers, or other articles, in the manner shown in Fig. 6 by interengaging the notch 17 with the proper one of the notches 14, the hook 21 substantially preventing lateral displacement or disengagement of the engaged portions of the tie.

Like the device previously described, this tie may be easily torn or broken manually and detached without cutting or otherwise injuring the hand of the person tearing or breaking and detaching the tie and without cutting, tearing or otherwise damaging the newspaper. Possessing these desirable and improved features of construction, characteristics and functions, this device differs essentially from the construction, characteristics and functions of metal strips or bands which could not be used in this manner and which are now unavailable for many purposes.

From the foregoing, it should be apparent that this invention attains all of its intended objects and purposes economically, efficiently, and satisfactorily. In the particular that it may be easily broken manually without injury to the hand or to the newspaper or other article, it is even more satisfactory than the wire heretofore generally used for these purposes.

I claim:

1. A manually breakable tie for securing and holding newspapers and the like in rolled form, comprising an inelastic strip of non-metallic material having substantially pliable and bendable edges and corners to prevent injury to the person manually breaking the tie and also to prevent damage to the newspaper or other article, said strip having a longitudinal series of notches along one side edge of one end portion thereof, each notch having a transverse wall extending nearly at right angles from said side edge and having another wall diverging from said first wall to intersection with said side edge and toward the opposite end of the strip, leaving said first wall toward the end of the strip from which said series of notches extend, said strip also having a series of circular holes along the longitudinal axis thereof having their peripheries that are toward the said side edge of said strip intersecting said walls of said notches respectively and forming relatively narrow openings into said respective notches and co-operating with said transverse walls to form tongues extending longitudinally of said strip toward said second named walls respectively, said strip also having a notch in its opposite side edge adjacent to the opposite end thereof adapted to be interengaged with said first named notches and holes respectively, and a tongue at the side of said last named notch that is toward said last named end extending longitudinally of said strip toward the opposite side of said last named notch, one of said first named tongues and said last named tongue overlapping said strip at opposite sides of said notches and holding the end portions of

said strip substantially from lateral displacement when said last named notch is interengaged with any one of said first named notches.

2. A manually breakable tie for holding and securing newspapers and the like in rolled form comprising an inelastic strip of non-metallic substance having substantially pliable and bendable edges and corners to prevent injury to the person manually breaking the tie and also to prevent damage to the newspaper or other article, said strip having a longitudinal series of notches along one side edge of one end portion thereof extending approximately to the longitudinal axis of the strip, and each of said notches including a wall extending transversely of the strip and another wall diverging outwardly therefrom whereby each of said notches comprises a wide outer portion at one side edge of the strip and a narrow inner portion, said strip also having a notch in the opposite side and adjacent to the opposite end thereof and adapted to be interengaged with said first notches selectively, and a tongue integral with said strip at the side of said last named notch that is toward said end projecting longitudinally toward the opposite side of said notch and extending beyond the plane of said transverse wall of any one of said first named notches that is interengaged with said last named notch.

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