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BUNDLE TYING METHOD AND APPARATUS

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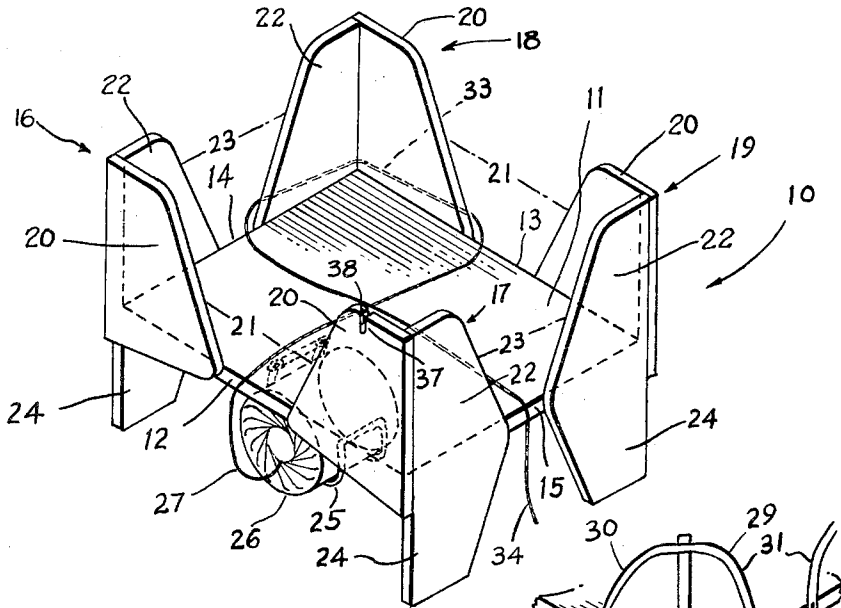


FIG. 1

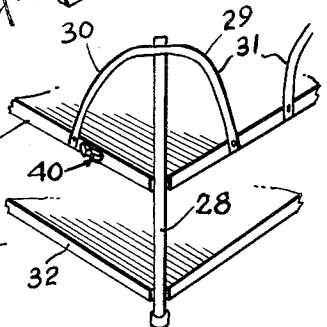


FIG. 3

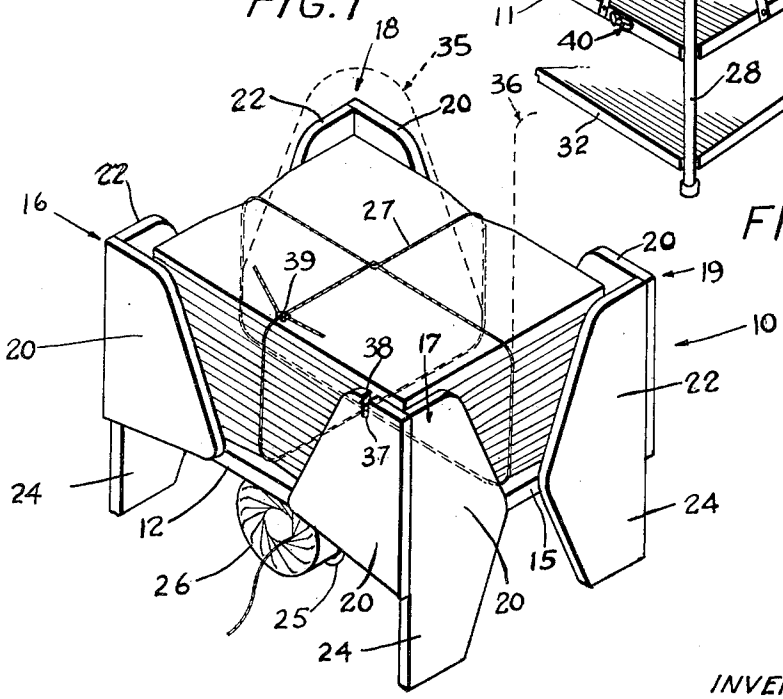


FIG. 2

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BUNDLE TYING METHOD AND APPARATUS

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This invention relates to apparatus for storing and tying material such as newspapers, magazines and the like into compact, readily transportable packages.

The invention has for one of its objects the provision of a novel means for stacking and tying papers, magazines and the like into bundles, wherein a single continuous length of strand material can be laid upon a stacking surface in a first course crosswise thereof, then looped to provide a second course crossing the first course with the free ends of the strand projecting from adjacent sides, and papers stacked on the surface with one corner of the stack within said loop, whereby the latter can be lifted over the top of the adjacent corner of the stack and the ends of the strand brought up and over the sides to the top of the stack and secured to the loop.

Another object of the invention is the provision of a simple, economical and attractive article of household furniture which functions as a receptacle for papers, etc., and which is so designed that the material stored therein may be quickly and easily tied into a compact bundle.

Another object of the invention is the provision of a pre-set bundle-tying apparatus for newspapers, magazines and the like wherein strand material fed from a supply source carried by the apparatus is first laid upon the surface on which the material is to be stacked in such a way that tying of the accumulated stack is facilitated.

A further object of the invention is the provision of a pre-set bundle-tying apparatus including a base or shelf upon which papers, magazines and the like are to be stacked having an upright on at least one corner thereof and a source of supply of strand material. Strand material withdrawn from the source is drawn across the shelf in one direction, looped around the corner upright and the free end drawn transversely across upon itself in the other direction with the free end projecting from a side of the shelf, whereupon papers may be stacked thereon to the desired height of the bundle, whereupon the loop can be lifted over the upright and over the corner of the stack and the free end of the strand threaded through the loop and brought forward to the edge of the stack, whereupon the end of the strand still attached to the source of supply is brought up to meet the free end, cutting means forming a part of the apparatus being provided to sever the required length of strand, whereupon the bundle can be tied by joining the ends of the strand in a single knot at the edge of the stack.

Other objects of the invention will become clear from the following detailed description when read in conjunction with the accompanying drawings, wherein,

FIG. 1 is a perspective view of a receptacle having incorporated therein bundle-tying means embodying the features of this invention;

FIGURE 2 is a perspective view similar to FIGURE 1 showing the receptacle of this invention with the papers stacked therein tied into a relatively neat bundle, and

FIGURE 3 is a fragmentary perspective view of a modified form of receptacle according to this invention.

Referring to the drawing, the numeral 10 designates a receptacle comprising a solid, horizontal, rectangular shelf or base, preferably of wood, upon which papers are to be stacked, having sides 12 and 13 and ends 14 and 15, the latter being somewhat shorter than the sides, al-

though it should be understood that the shelf may be of any suitable shape conforming generally to the shape of the material to be accumulated thereon.

To the four corners of the shelf there are secured upright angle members 16, 17, 18 and 19, which include side wall sections 20 separated on each side to provide opposed vertical spaces or guide openings 21, and end wall sections 22, likewise separated to provide opposed vertical spaces or guide openings 23.

Shelf 11 and side and end wall sections 20 and 22 respectively, form an open-top receptacle adapted to receive and confine therein newspapers, magazines and the like which are later to be tied into a bundle and removed. In the construction shown in FIGURES 1 and 2 the corner uprights are made of wood and form solid wall sections joined at the corners of the receptacle to form right angles corners in which the corners of the stacked papers are nested, and end wall sections 22 are extended below the shelf 11 to form legs 24.

Attached to the lower surface of shelf 11 is a bracket 25, preferably made of wire, adapted to support a source of strand material such as a ball 26 of heavy twine 27 with which the stack of papers is to be tied into a bundle.

In FIGURE 3 is shown a fragment of a receptacle in which another form of corner uprights is used. In this case the upright guide member is made of metal, such as wrought iron, in the form of bars including a vertical corner bar 28 and a bent member 29 secured to the top of bar 28 and connected to adjacent sides and ends of the shelf 11 to form wall sections 30 and 31 corresponding to wall sections 20 and 22 in FIGURES 1 and 2.

If desired, another shelf may be provided below shelf 11. Such a shelf is indicated at 32 in FIGURE 3, and where the device of this invention is utilized in the home to stack discarded newspapers and magazines for bundling, the lower shelf may serve to store periodicals before they are discarded.

To pre-set the device according to this invention, the free end of the twine is withdrawn from the ball 26, passed between the wall sections 20 at the front side of the receptacle and a first course laid crosswise upon shelf 11 and between the wall sections 20 at the opposite side of the receptacle. Still grasping the free end of twine the operator carries it around the outside of one of the adjacent uprights, in this case member 18 to form a loop 33, and it is then drawn between the adjacent end wall sections 22 and a second course laid upon and across the shelf transversely of and perpendicular to the first course, and the free end of twine being carried between the opposing end members 22 and deposited in the manner shown at 34 in FIGURE 1.

The tying apparatus being thus pre-set, the papers are then accumulated in the receptacle to the desired thickness. At this point the preferred procedure is to grasp the loop 33 with one hand and the free end 34 of the strand with the other. The loop is then drawn upwardly and over upright member 18 and the adjacent edge of the stack to the position indicated at 35 in FIGURE 2, and the free end 34 of the strand is drawn up to a position such as indicated at 36 in FIGURE 2. By proceeding in this manner the required amount of twine is withdrawn from ball 26.

The free end 34 of the strand is passed through the loop and pulled forward to the position shown in FIGURE 2. Next the unsevered twine between the ball 26 and the stack of papers is grasped with one hand and brought up in a loop to overlap the free end of the twine to such a length as is required for tying a knot. The apex of this loop is then inserted in a slot 37 provided in the upper edge of the adjacent wall section 20 and cut by being drawn against the sharpened edge of a cutting blade 38 seated in the slot. The two free ends of the twine

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are then tied together at the edge of the stack by a knot 39. The tied bundle can now be easily lifted from the receptacle and the twine again withdrawn from the ball and laid in the pattern shown in FIGURE 1 ready for the accumulation of another stack of papers.

With reference to the receptacle illustrated in FIGURE 3, a cutting device indicated by the numeral 40, somewhat similar to that shown in FIGURES 1 and 2, is provided and is mounted on one edge of the shelf 11.

My invention has been described in its preferred embodiment, and the operation thereof should be clearly understood from the foregoing description. It should likewise be understood that modifications may be made in the invention without departing from the spirit thereof or the scope of the appended claims.

What I claim is:

1. A pre-set bundle tying apparatus for newspapers and the like, comprising a generally rectangular unitary shelf, an upright member affixed to and projecting upwardly from one corner of said shelf, and a single length of strand material extending crosswise of said shelf, around the outside of said upright member and lengthwise of the shelf to provide a base upon which papers are to be stacked, whereby the stack of papers may be tied into a bundle by lifting the loop formed by the strand outside of said upright member over the top thereof and the adjacent corner of the stack, and tying the free ends of the strand to the loop.

2. A pre-set bundle tying apparatus for papers and other material, comprising a unitary shelf having four corners and four sides and conforming generally to the size and shape of the material to be bundled, angle members affixed to and projecting upwardly from the four corners of said shelf to form an open-top receptacle having vertical guide openings between adjacent angle members on opposite sides of said shelf, and a length of strand material on said shelf extending crosswise thereof through opposite guide openings and around one of said angle members to form a loop and crosswise of said first mentioned length of strand material through opposite guide openings to provide with the shelf a base upon which the papers are to be stacked, whereby said loop may be lifted over the associated angle member and the adjacent corner of the stack of papers on said shelf and the free ends of said strand lifted over the adjacent sides of the stack and tied to said loop.

3. The invention set forth in claim 2, wherein said apparatus includes a holder for a continuous supply of strand material carried by said receptacle.

4. The invention set forth in claim 3, wherein cutting

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means is provided on the receptacle adjacent said holder arranged to engage the strand to sever a length thereof from the supply.

5. A bundle tying receptacle for newspapers and the like, comprising means serving as a generally rectangular unitary shelf upon which the papers are to be stacked, right angular corner guide members projecting upwardly from said shelf adjacent the corners thereof to form a receptacle wherein open-top spaces are provided between adjacent guide members at the ends and sides of the receptacle, and a single length of strand material looped around one of said corner guide members having its free end portions extending crosswise of and upon said shelf and projecting outwardly between the guides at the corners of adjacent sides defining the corner opposite that around which the strand is looped, whereby said loop may be pulled upwardly over its associated corner guide member and the adjacent edge of the papers stacked on said shelf and the free ends of said strand may be tied thereto at the top of the stack to form a tied bundle.

6. A pre-set bundle tying apparatus for newspapers and the like to be tied into a bundle, comprising a member serving as a unitary shelf of generally rectangular shape, corner members forming side walls and end walls affixed to the respective corners of said shelf, said corner members including pairs of wall sections on each side of the shelf spaced to provide a vertical opening between each pair of sections centrally of said side and end walls and adjacent side and end wall sections are joined to form upright angle members at the four corners of the shelf, and a single length of strand material having its first course lying upon and extending crosswise of the shelf, said strand extending through opposite openings in said side walls around one of said corner members and transversely of said first course through opposite openings in said end walls.

References Cited in the file of this patent

UNITED STATES PATENTS

1,246,923	Horrigan	Nov. 20, 1917
1,357,883	McChesney	Nov. 2, 1920
1,951,972	Fraser	Mar. 20, 1934
2,085,082	Delany	June 29, 1937
2,321,802	Deubener	June 15, 1943
2,364,518	Clouser	Dec. 5, 1944
2,418,550	Edwards	Apr. 8, 1947
2,627,342	Thomson	Feb. 3, 1953
2,636,432	Sherer	Apr. 28, 1953
2,639,037	Friend	May 19, 1953