Sept. 28, 1965 R. W. E. MOSSE ETAL 3,208,588

CAN LABELLING

Filed Sept. 18, 1962

Fig. 1.

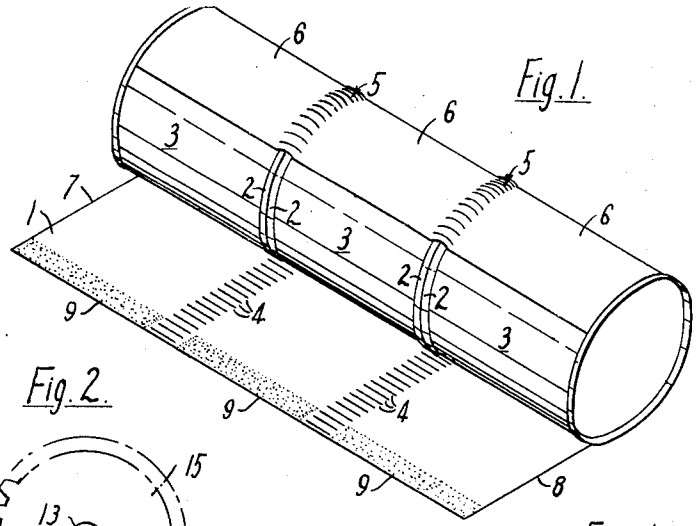


Fig. 2.

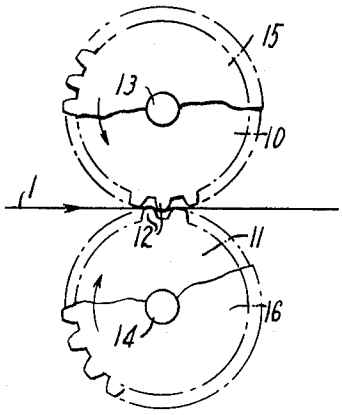


Fig. 4.

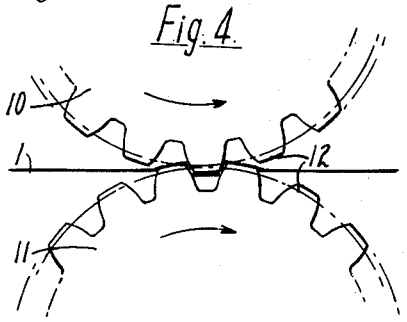
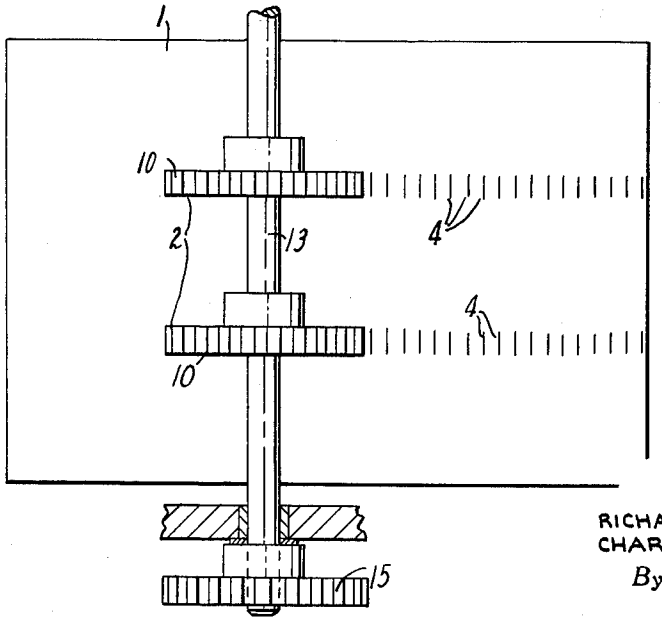


Fig. 3.



Inventors
RICHARD W. E. MOSSE
CHARLES D. V. STILL
By Innis and Innis
Attorneys

United States Patent Office 3,208,588 Patented Sept. 28, 1965

3,208,588

CAN LABELLING

Richard Wolfgang Emil Mosse, London, and Charles David Valentine Still, Swindon, England, assignors to The Metal Box Company Limited, London, England, a company of Great Britain

Filed Sept. 18, 1962, Ser. No. 224,469
Claims priority, application Great Britain, Oct. 12, 1961, 36,686/61
3 Claims. (Cl. 206—65)

This invention relates to the labelling of cans and in particular to the simultaneous labelling of two or more cans disposed in end-to-end relation with a chime of one can abutting a chime of another can.

It has previously been proposed to package two or more cans in end-to-end relation with a chime of one can abutting a chime of another can, but the cans have been previously individually labelled and the wrapper for retaining the cans in position relatively one to another has been an integer separate from the labels. It is a main object of the present invention to provide a cheaper pack than those previously employed by dispensing with the previously used special wrapper and connecting the endwise arranged cans by the labels which are applied thereto.

According to the invention there is provided a package comprising at least two cans disposed in end-to-end relation with a chime of one can abutting a chime of another can, and a label including for each can a body portion which extends between the chimes of the can, said body portions being connected by a weakened area integral therewith and expanded about the abutting chimes to permit the smooth application of the body portions to the cans, the securing of the body portions about the cans to retain them in said abutting relation, and to facilitate separation of one can from the other.

In order that the invention may be clearly understood one embodiment thereof will now be described, by way of example, with reference to the accompanying drawings, in which:

FIGURE 1 is a pictorial view of three cans each in end-to-end relation to be retained in this relation by a label according to the invention and in which the label is shown partly applied to the cans,

FIGURE 2 illustrates apparatus for making a label according to the invention,

FIGURE 3 is a top plan of FIGURE 2,

FIGURE 4 illustrates, to an enlarged scale, the mode of operation of the apparatus illustrated in FIGURE 2,

Referring to FIGURE 1, a multiple label **1** is provided in the regions thereof which are to be applied over the abutting chimes **2** of cans **3** with slits **4** having a length and spacing such as to permit the expansion of the label about the abutting chimes **2** when the label is applied to the endwise abutting cans as illustrated at **5** in FIGURE 1, and the smooth application of the body portions **6** of the multiple label to the bodies of the cans **3**.

As illustrated in FIGURE 1, the slits **4** are formed at right-angles to the edges **7** and **8** of the label which extend circumferentially about the cans, and adhesive **9** is applied to the multiple label to secure it about the cans when the multiple label has been completely folded round the can assembly.

From the foregoing it will be understood that there is provided a package which comprises at least two cans, three being shown in FIGURE 1, disposed in end-to-end relation with a chime of one can abutting a chime of another can and a label which surrounds and is secured about the cans to secure them relative one to the other, the label in the region thereof which is applied over the abutting chimes **2** having the slits **4** formed therein and

extending across the abutting chimes to permit expansion of the label about the chimes. By this means the package is retained as a unit solely by the application to the cans of the multiple label which is applied thereto and when one can is to be separated from the package this may be easily effected by twisting one can relative to the adjoining can so that the label is broken across the slits **4** or, alternatively, breaking of the weakened areas **5** can be effected by pulling one can away from the adjoining can.

The labels for use as described above are made by apparatus as illustrated in FIGURES 2 to 4, a label **1** being moved in the direction of the arrow, FIGURE 2, and past rotatable meshing involute gears **10**, **11** the teeth of which are truncated substantially on the pitch cylinders of the gears but in a manner such as to leave a residue **12**, FIGURE 4, of the addenda sufficient to effect slitting of the label as it is passed between the gears. With the arrangement of apparatus illustrated in the drawings the addenda portions **12** produce a shearing action normal to the plane of the label at intervals equal to one-half of the circular pitch of the teeth of the gears **10**, **11**. The gears **10**, **11** are secured respectively to shafts **13**, **14** which are rotated by gears **15**, **16**.

In the foregoing description the slits **4** have been described as being formed at right-angles to the edges **7**, **8** of the label but, if desired, the weakening of the label in the region thereof which is to be applied over abutting can chimes may be effected by slits of other form, for example by slits in the form of chevrons, oblongs, or arcs. Further, the weakening may be effected by patterns of perforations and such patterns may be in the form of a legend, for example a trade mark or a descriptive or advertising legend.

We claim:

1. A package comprising at least two cans closed at their ends, each of said cans having a tubular wall with a laterally outwardly projecting chime at each end, said cans being disposed in end-to-end relation with a chime of one can abutting a chime of another can, and a unitary label comprising the sole means both for indicating the contents of the cans and for retaining the cans in abutting relation as a package, said label being secured about and contacting the tubular walls of the cans, and said label in the area overlying said abutting chimes having a weakened portion which extends peripherally of the chimes, includes apertures in a pattern extending lengthwise of the cans, and is expanded to form an inwardly opening groove in which the abutting chimes seat.

2. A package according to claim **1**, wherein said label covers substantially the entire surfaces of said tubular walls of the abutting cans.

3. A package according to claim **1**, wherein said pattern of the weakened portion of the label comprises slits spaced apart peripherally of the chimes and extend lengthwise at right angles to the longitudinal edges of the label.

References Cited by the Examiner

UNITED STATES PATENTS

538,219	4/95	Baskerville	217—29
2,220,912	11/40	Ringler	206—45.32
2,423,224	7/47	Card	206—47
2,604,256	7/52	Whitehead	229—89
2,679,281	5/54	Paulucci.	
2,756,821	7/56	Phipps	83—345
2,996,180	8/61	Bruce	206—65
3,005,370	10/61	Nye	83—345
3,101,847	8/63	Bruce	206—65

THERON E. CONDON, *Primary Examiner.*