

# PATENT SPECIFICATION

313,770



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PROVISIONAL SPECIFICATION.

## Improvements in and relating to Cigarette Cases and Boxes and other similar Hinged Receptacles.

We, S. MORDAN & COMPANY LIMITED, a British Company, EDWIN GEORGE STEVENS, a British Subject, and HENRY WILLIAM BROWN, a British Subject, all of 41, City Road, London, E.C. 1, do hereby declare the nature of this invention to be as follows:—

This invention relates to improvements in cigarette cases, cigarette boxes and other similar hinged receptacles of the type comprising two members hinged together, the said members being adapted to be moved longitudinally with respect to one another in order to release the catch or catches which hold the two parts together. The chief object of this invention is to provide an improved sliding joint between the two parts which will be simple and cheap to manufacture and at the same time efficient in action.

The joint, according to this invention, comprises two members each secured to or integral with one of the two parts of the cigarette case or the like, one of these two members being provided with an undercut groove to receive a similar projection on the other member and means being provided to limit the relative movement of the two parts.

Describing now one convenient form of this invention, the sliding joint comprises two strips one adapted to be soldered or otherwise suitably secured to one of the flaps of a cigarette case and hereinafter referred to as the lower strip, and the other (hereinafter referred to as the upper strip) having a plurality of hinge lugs or knuckles adapted to co-act with the hinge lugs or knuckles on the other flap of the cigarette case to form the hinge which, as will be readily understood, may be spring controlled, if so desired.

The lower strip is provided with an undercut groove of dovetail cross-section and the upper strip is provided with a projection of a similar cross-section to take into the groove in the lower strip. In order to limit the relative movement of the two strips the lower strip is provided with a slot, conveniently in the base of

the groove and the upper strip is provided with a pin to take into this slot. As will readily be appreciated the relative movement of the two strips will be limited by the pin abutting against the two ends of the slot. Should it be desired to take the joint to pieces it will merely be necessary to remove the pin when the two strips may be slidden apart.

It will readily be appreciated that the undercut groove may be of any suitable cross-section and that any other desired means may be employed to limit the relative movement of the two parts, for example, we have found that the undercut groove may conveniently be of circular cross-section and the projection on the upper member may be of similar shape. In this case limitation of the movement may be effected by filling in one end of the groove. This may also be used in the construction described above.

Many modifications may be made in the constructions described above without departing from the spirit of this invention, for example, the undercut groove may be in the upper strip and the projection on the lower strip. Also, if so desired, the slot to receive the pin may be in the side of the strip.

It will thus be seen that by this invention a joint is provided which is easy to manufacture but which will at the same time be efficient in operation. Further the joint has no openings inside the cigarette case and accordingly all liability of tobacco or other dust clogging the joint is avoided.

Although this invention has been more particularly described with reference to cigarette cases, it will be obvious that it is equally applicable to cigarette boxes and any other similar hinged receptacles.

Dated this 26th day of June, 1928.

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Price 4s 6d

## COMPLETE SPECIFICATION.

## Improvements in and relating to Cigarette Cases and Boxes and other similar Hinged Receptacles.

We, S. MORDAN AND COMPANY LIMITED, a British Company, EDWIN GEORGE STEVENS, a British Subject, and HENRY WILLIAM BROWN, a British Subject, all of 41, City Road, London, E.C. 1, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements in cigarette cases, cigarette boxes and other similar hinged receptacles of the type comprising two members hinged together, the said members being adapted to be moved longitudinally with respect to one another in order to release the catch or catches which hold the two parts together and the joint being in the form of an undercut groove in one part receiving a similarly shaped projection on the other part. The chief object of this invention is to provide an improved sliding joint between the two parts which will be simple and cheap to manufacture and at the same time efficient in action.

According to this invention, the means for limiting the relative movement of the two parts of the joint are so arranged that in the open position the end of the sliding member of the joint does not move past the inner edge of the flap carrying the other part of the joint so that there is no free space left on the inside of the case when open in which tobacco dust can collect and interfere with the working of the action. The undercut groove is preferably of dove-tail cross section and, if desired, the means for limiting the relative movement of the two parts may comprise a pin and slot device.

As an alternative method of limiting the movement of the flap, the ends of the groove may be filled in.

In order that this invention may be the more clearly understood and readily carried into effect we will proceed to describe the same with reference to the accompanying drawings which illustrate by way of example and not of limitation one convenient embodiment of this invention and in which

Figure 1 is a perspective view of a cigarette case according to this invention in the open position.

Figure 2 is a fragmentary elevation of the hinge portion of the case on an enlarged scale,

Figure 3 is a similar plan view of one end of the hinge showing the open and closed position, and

Figure 4 is a section on line 4—4 of Figure 3.

Referring to the drawings, the sliding joint comprises two strips, one *a* adapted to be soldered to one of the flaps *b* of a cigarette case and hereinafter referred to as the lower strip, and the other *c* (hereinafter referred to as the upper strip) having a plurality of hinge lugs or knuckles *c*<sup>1</sup> adapted to co-act with the hinge lugs or knuckles *d*<sup>1</sup> on the other flap *d* of the cigarette case to form the hinge which, as will be readily understood, may be spring controlled if so desired.

The lower strip *a* is provided with the undercut groove *a*<sup>1</sup> of dove-tail cross-section and the upper strip *c* is provided with the projection *c*<sup>2</sup> of a similar cross-section to take into the groove *a*<sup>1</sup> in the lower strip *a*. In order to limit the relative movement of the two strips the lower strip *a* is provided with a slot *a*<sup>2</sup> conveniently in the base of the groove (see Figure 4) and the upper strip *c* is provided with a pin *c*<sup>3</sup> to take into this slot. As will readily be appreciated the relative movement of the two strips will be limited by the pin abutting against the two ends of the slot. Should it be desired to take the joint to pieces it will merely be necessary to drill out the pin when the two strips may be slidden apart. The relative movement of the two parts is so limited that the edge of the flap *d* when in the open position as shown in full lines in Figure 3 does not move past the inner edge of the flap *b*. In this manner all chance of tobacco dust getting between these two parts of the joint and so interfering with the easy relative movement is avoided.

Further it will be seen that should any dust etc, become lodged in the open end of the groove *a*<sup>1</sup> the same will be immediately cleared out when the case is closed. The flap *b* is provided with a hook or the like *b*<sup>1</sup> adapted to take under the edge of the surround *d*<sup>2</sup> of the flap *d* and so hold the same closed. A similar hook *d*<sup>1</sup> and surround *b*<sup>2</sup> are provided on the parts *d* and *b* respectively. Relative movement of the flaps, of course, releases these hooks and allows the case to open. *f* (Figure 2) is the usual loop to receive the elastic

band to hold the cigarettes in place.

It will readily be appreciated that the undercut groove may be of any suitable cross-section and that any other desired means may be employed to limit the relative movement of the two parts, for example, we have found that the undercut groove may conveniently be of circular cross-section and the projection on the upper member may be of similar shape.

Limitation of the movement may be effected by filling in the ends of the groove in place of the pin and slot device, in which case the projection would be of less length than the groove and limitation of movement would be effected by the projection abutting against the filled in ends of the groove.

Many modifications may be made in the constructions described above without departing from the spirit of this invention, for example, the undercut groove may be in the upper strip and the projection on the lower strip. Also, if so desired, the slot to receive the pin may be in the side of the strip.

Among the many advantages of this invention may be mentioned firstly that the cigarette case or the like is easily and simply manufactured and assembled and secondly since the parts of the sliding joint are in contact throughout the whole of one side of the cigarette case or the like a very strong joint is provided and the chance of the sliding groove portion being strained and thereby put of action is reduced to a minimum.

Although this invention has been more particularly described with reference to cigarette cases, it will be obvious that it is equally applicable to cigarette boxes and any other similar hinged receptacles.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A cigarette case, box or the like of the type referred to in which the sliding joint is in the form of an undercut groove in one part receiving a similarly shaped projection on the other part, means being provided to limit the relative movement of the two parts so that in the open position the end of the sliding member of the joint does not move past the inner edge of the flap carrying the other part of the joint, whereby there is no free space left inside the case when the same is open in which tobacco dust can collect and so hinder the action.

2. A cigarette case, box or the like according to Claim 1 in which the undercut groove is of dove-tail cross section.

3. A cigarette case, box or the like according to Claim 1 or Claim 2 in which the means for limiting the relative movement of the two parts comprise a pin in one member of the sliding joint taking into a slot in the other member, substantially as described.

4. The improved cigarette case, box or the like having its parts constructed, arranged and adapted to operate, substantially as described and as illustrated by the accompanying drawings.

Dated the 6th day of March, 1929.

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[This Drawing is a reproduction of the Original on a reduced scale.]

