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PATENT SPECIFICATION

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(54) CASSETTE STORAGE CONTAINERS

(71) We, IISI PRODUCTS AG, of Grabenstrasse 15, Chur, Switzerland, a Swiss Aktiengesellschaft do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to a container for the storage of magnetic tape cassettes, especially in cartridge form, in the shape of a rectangular housing which is open on one of its narrow sides for the insertion and removal of the cassettes, wherein the cassette pre-tensions an ejector member against a spring force when it is inserted, and the ejector member is locked in the insertion position, but after the locking means has been released the cassette is automatically conveyed out into a convenient removal position by the ejector member.

Containers of this type are already marketed. The known containers are so constructed that the cassette which is to be stored is placed in a sliding transport slider which when pushed into the container together with the inserted cassette pre-tensions an ejector spring, by means of which the transport slider is conveyed out into a convenient position for the removal of the cassette when a locking means is released. Several such containers may be interlocked to form stacking blocks.

The embodiments of the invention to be described with reference to the drawings are intended for the larger cassettes marketed, the so-called 8-track cassettes or cartridges, which have on one side edge a notch-like excision. However, the invention can also be applied to cassettes which have some kind of depressions or holes at other points, or notches just off-centre at this point.

According to the invention there is

provided a cassette storage container for a cassette incorporating an excision in the body thereof, the container including:

a resiliently biased ejection member operative to allow insertion of a cassette into the body of the container against the force of the resilient bias, and

a releasable locking means to lock a cassette in a storage position, wherein:

the ejection member has a lug to enter the excision of a correctly inserted cassette and is mounted so as to be movable to engage and disengage the lug with the excision,

the releasable locking means is arranged to lock a cassette in the storage position when the cassette is inserted into the container against the force of the resilient bias and the lug engages the excision, but is inoperative to lock a cassette in the storage position if the lug and the excision of the cassette are not engaged.

The embodiments all comprise containers for cartridges, in which, whilst retaining the advantages — stackability, manufacture from plastics material by the injection-moulding method—a drawer-like transport slider which takes a great deal of material is not used but there is an ejector mechanism which costs less in material from the point of view of injection-moulding technique, and also automatically conveys cartridges out into a convenient removal position when a locking means is released, in order for example to be able to remove any required cartridge unhindered and easily from a block of stacked containers.

These advantages are obtained in embodiments of the invention by the fact that the ejector member is a lever which is movable in the ejection direction and can be rotated, pivoted or tilted in a second plane, and which engages under the cassette with one arm and with the other arm is

guided in a channel running parallel to a side edge of the cassette; that the other arm has a cap projecting into the insertion path of the cassette which is complementary in shape to an excision in the cassette housing; that the cam only drops into the excision when the correct side of the cassette is pushed in, the cassette is held firmly by the lever and is locked in the housing, and that after the locking means is released the cam can be pivoted, tilted or rotated out of the excision by the removal of the cassette against a restraining force.

15 With this construction the housing can fit closely on the cassette since the channel which accommodates the ejector and locking members can be very narrow. It is of particular advantage that the ejector lever simultaneously carries out the following functions:

20 First: due to its engagement in the excision the cam holds the cassette firmly in the housing for as long as it is stored.

25 Second: it transports the cassette into the removal position, with the spring force coming fully into effect (unbraked), since the cam still moves with it in the excision.

30 Third: the lever brakes the cassette when the removal position is reached—but not until this position is reached—due to the fact that for the further movement of the cassette the cam must be pushed out of the excision and then rests with a braking action against the narrow side of the cassette; in this way the cassette itself cannot then fall out if the container is arranged with its open side inclined slightly downwards.

35 Finally, fourth: since the cassette is provided with a notch like excision the lever ensures that the cassette is always stored in the correct position in the container (i.e. ready for use), since it is only then that the retaining effect is produced.

40 The lever can be actuated from the open side of the housing, where the channel also opens towards the outside. When the lever is so actuated it may project out from the cassette in the removal position. This can be avoided by providing an unlocking key associated with the lever in such a way that the lever and the key can slide past one another in a telescopic manner during the ejection movement.

45 By way of example only, certain illustrative embodiments of the invention for cassettes of the cartridge type will now be described with reference to the accompanying drawings in which:

50 Fig. 1 shows a diagrammatic exploded view of a container embodying the invention, Figs. 2-4 show longitudinal sections through the container of Fig. 1 along the line A-A; they show the position of the

individual components in the storage position, an intermediate position, and in the removal position for the cassette.

Fig. 5 is a partial sectional view of a second embodiment along the line V-V of Fig. 6, 70

Fig. 6 is a side view of the container in Fig. 5 along the line VI-VI of Fig. 5.

Fig. 7 shows a partial section through a third container embodying the invention along the line VII-VII of Fig. 8, 75

Fig. 8 shows a sectional partial view of the container in Fig. 7, along the line VIII-VIII of Fig. 7.

Fig. 9 shows a partial section through the container in Fig. 7 along the line IX-IX of Fig. 7, 80

Fig. 10 is a detail from Fig. 9.

Fig. 11 shows a partial section through a fourth embodiment along the line XI-XI of Fig. 12, 85

Fig. 12 is a sectional view along the line XII-XII of Fig. 11, and

Figs. 13 and 14 show a modified form of the fourth embodiment taken along lines XIII-XIII and XIV-XIV respectively. 90

The preferred embodiment according to Figs. 1-4 will first be described.

The reference 1 indicates the storage container which consists of a U-shaped frame housing with side walls 2,2', covering walls 3,3' and a base 4. On the outside the covering walls 3,3' have projecting strips 5 and complementary grooves 6 respectively in order that the containers can be stacked or joined together to form blocks. 95

The reference 7 indicates a key which serves as locking member and is to be moved by finger pressure in order to unlock it, 8 indicates a lever acting as ejector, and 9 a helical spring, and during assembly these parts are fitted in the order spring 9, lever 8, key 7 into a channel 11 which is rectangular in cross-section and divided off from the main part of the housing by means of inner strips 10,10' on the covering walls 3,3'. 100

The key 7 has a rectangular hollow profile section *a* which fills the cross-section of the channel with a slight sliding play. The hollow profile section *a* forms the actual guide for the slider movement of the key within the channel 11, which is bounded by the outer side wall 2 of the frame, its covering walls 3,3' and the inner strips 10,10' on the covering walls. 105

The profile section *a* has projecting side edges *b* and *c* which help to form the finger pressure surface 12. These projecting side edges, together with a lug 13 on one narrow side of the profile section *a* which has associated with it a slot guide 14 in the covering wall 3 facing it, form limiting surfaces for the displacement movement of the key. When pushed in, the side edge *b* comes to rest on the top edge 15 of the 110

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side wall 2 which is cut off deeper than the covering walls 3,3', and the side edge c comes to rest on the inner strips 10,10' which are also cut off lower, whilst the return movement of the key towards the outside is limited by means of a perpendicularly projecting stop surface 13' on the lug 13 which meets the outer edge 14' of the slot 14. During assembly the key is pushed in, flexibly deforming the covering wall 3, until the lug 13 engages in the slot guide 14.

On the profile section *a* on the side furthest from the finger pressure surface 12 a considerably thinner flat profile section *d* is formed, which extends the base surface of the profile section *a* sliding on the inner strip 10. This flat profile *d* is only half the width of the broad side of the profile section *a*, so that it leaves free spaces above and near it in relation to the cross-section area of the profile section. A stop and guide extension *e* is finally formed on the flat profile *d*, and the end edge *f* of the profile *d* is reinforced and provided with an ablique ramp *g* for the ejector lever 8.

The longitudinally movable lever 8 serving as ejector has two arms 19 and 23 and has on its longer lever arm 19 an angled supporting side strip 20 tapering towards its free end, and in addition a flat support lug 21 angled at right angles to the arm 19, on which the ejector compression spring 9 acts. The support lug 21 is reinforced by means of a triangular strip 22.

The longer lever arm 19 is slit longitudinally to form a detached spring tongue 24, and on this tongue is fitted an engaging cam 25 which is complementary in shape to the side notch on the cartridges and placed accordingly. On the end of the longer lever arm 19 a side projection 26 with a bevelled lower edge 26' is also formed, and has associated with it a ramp strip 27 on the adjacent covering wall 3.

The shorter arm 23 of the flat profile lever is obliquely angled; the cassette meets it when pushed in, and thus brings about a tilting movement of the ejector lever 8.

A guide strip 28 for the spring 9 is also formed on the side wall 2 in the channel 11 in order to prevent the helical spring from kinking.

Fig. 2 shows the position of the parts with the cassette pushed in; the cassette 30 is shown by dash-dotted lines. The cassette 30 is thereby held in its storage position by the fact that the cam 25 on the spring tongue 24 is engaged in the notch 31 which is to be found on commercially available cartridges, and the pre-tensioned ejector lever 8 is blocked by the engagement of its longer lever arm 19 beneath the end

edge *f* of the flat profile *d* of the key 7.

If pressure is now exerted on the finger pressure surface 12 of the key 7 (Fig. 3), the result is that the side projection 26 on the ejector lever 8 slides on the ramp strip 27 causing the upper part of the side projection 26 to move outwardly so that the top of the lever is disengaged from the end edge *f* of the flat profile *d* of the key 7 and the ejector lever is thus disengaged. The result of this is that the ejector lever 8 accelerates upwards, taking the cassette 30 with it, and slides past the flat profile *d* of the key 7 until it meets the lower edge of the profile section *a* of the key or meets the stop extension *e* with the bottom edge of the longitudinal slot. When the finger pressure is removed, the key 7 thereby executes an outward movement which is limited by the lug 13 meeting the outer edge 14' of the slot guide 14.

When finger pressure is applied to the finger pressure surface 12, the cassette is conveyed into and held in a position in which it can easily be grasped and pulled out. A certain braking effect has to be overcome when pulling out the cassette since, in order that the cam 25 on the spring tongue 24 is pushed out of the notch 31 in the cartridge, the spring tongue 24, whose distal end is supported on the side wall 2, must be flexed.

The off-centre placing of the cam 25 on the spring tongue 24 offers the advantage that the cartridges can only be introduced into the containers in a certain position in order for the locking and holding mechanism to take effect. Otherwise the cassette can in fact be pushed in without damage to the mechanism or the cassette itself, but the lever cannot engage beneath the key and conveys the cassette out again immediately.

A second embodiment of the invention is shown in Figs. 5 and 6.

The container 40 has a similar outline to the first sample embodiment and, like the latter, has side walls 42, 42' covering walls 43,43', and a base 44. The container in this embodiment is also stackable, but for the sake of simplicity the strips and grooves provided for this purpose are not shown.

Beside the actual receiving chamber a channel 45 is again provided, being limited by inner strips 46 which project inwards from the covering walls 43,43' parallel to the cassette ejection direction. A lever 48 is guided in this channel. It projects with one arm 49 into the cassette receiving chamber, whilst its other arm has longitudinal slits 50 and is thereby divided into three tongues. The tongue 51 carries a retaining cam 60 which also projects into the cassette receiving chamber. The middle

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tongue 52 is bent outwards and projects
 with a lug 53 through the side wall 42' of
 the container, which has an aperture 54
 at this point. The aperture is in the form
 of a slot which widens into a rectangle 55
 at its lowest point. The lug 53 is comple-
 mentary in shape to this rectangle, but in
 addition carries a guide extension 56 which
 can slide along the slot 54 when by means
 of finger pressure on the extension 56 the
 remainder of the lug is moved inwards
 out of the rectangle. This sliding movement
 takes place under the influence of a helical
 spring 57 which is tensioned between the
 base wall 44 and a lug 58 arranged on the
 lever 48. Finally, the tongue 59 of the lever
 48 is similar in form to the tongue 51 and
 is used for guiding. The whole lever 48 is
 made of a plastics material which is
 resiliently deformable to a limited extent.

On the covering wall 43,43' inside the
 channel, guide strips 61,62 are also formed,
 by means of which the tongues 51 and 59
 of the lever in the storage position of the
 cartridge shown in the drawing are held
 against the inner strips 46, without however
 hindering the sliding movement of the
 lever.

As long as the cassette is stored, it is
 secured by means of the cam 60 and the
 spring 57 is tensioned. If pressure is
 exerted on the lug 53, resiliently deforming
 the tongue 52, the lug in the rectangle 55
 is released, its guide extension 56 can slide
 upwards along the slot-like aperture 54,
 and the spring 57 releases itself from
 tension. The tongues 51 and 59 of the lever
 thereby come free of the guides formed
 between the inner strips 46 and the guide
 strips 61,62 when the guide extension 56
 approaches the top of the aperture 54.
 The relative dimensions of the tongues
 51,59, strips 61,62 and aperture 54 are as
 shown in the drawings. The cassette can
 now be removed, since pulling on the latter
 causes the cam 60 to be pushed resiliently
 out of the cassette notch. The cassette is
 prevented from being catapulted out by
 the friction between cam 60 and the edge
 of the cassette.

If an attempt is made to push the
 cassette in the wrong way round, the lever
 cannot be pushed downwards, since the
 cam 60 is then clamped in between cassette
 edge and guide strips 61.

In the embodiment according to Figs. 7-10,
 the container 70 again has a substantially
 U-shaped outline, and by means of an
 inner strip 71 a lateral channel 72 is
 separated from the actual cassette receiving
 chamber. A lever 73 is slidably arranged
 inside the channel 72. With its arm 74
 the lever engages beneath the lower edge
 of the cassette. The lever 73 is anchored by
 means of a hinge strip 75 in a slot 76 in

the side wall of the container 77, and can
 be pivoted to a limited extent about the
 inside edge of this slot 76. Above the hinge
 strip there is on the lever 73 a cam 78
 which is complementary in shape to that
 of the cassette notch, but is not quite as
 deep as the latter, being cut off. Finally,
 the same side wall 77 of the container has
 an elongated hole 80 in which a lug 81 of
 the lever 73 can lock itself. The lug 81 has
 an oblique surface 82. Between the lug 81
 and the cam 78 a helical traction spring
 83 engages which is anchored in the side
 wall 77 of the container above the slot 76
 at 84.

Finally, between the side wall 77 and
 the base 85 of the container a slide 86 is
 formed, with an actuating slope 87.

In Fig. 7 the cassette is locked in the
 storage position. It is held by the cam 78
 and can only be removed if pressure is
 exerted with the finger on the lug 81. The
 lever in the hinge—hinge strip 75 and slot
 76—is thereby pivoted in an anticlockwise
 direction (Fig. 9), so that the cam 78 is
 rotated out of the cassette notch. This is
 indicated by dash-dotted lines in Fig. 9.
 The lever arm 74 is also pivoted, but still
 engages beneath the cassette. Finally, during
 the pivoting movement the oblique surface
 82 on the lug 81 comes under the locking
 edge 88 of the elongated hole 80, so that
 the spring 83 can convey the lever 73 out-
 wards, and with it the cassette. The
 dimensions are such that the cam 78 still
 rubs against the side edge of the cassette
 so that the latter is braked when it is
 pulled out completely. The upper end of
 the slot 76 limits the outward movement
 of the lever.

When a cassette is pushed in, the lever 73
 at first remains in the unlocked position,
 since the lug 81 still rests against the side
 wall of the container and can only engage in
 the elongated hole in the end position. In
 order to bring this about automatically, the
 slide 86 is provided having the actuating
 slope 87 across which the lever slides and
 is rotated accordingly. This is of course
 only possible when the notch in the cas-
 sette is opposite the cam 78, otherwise the
 lug does not drop into place and the cas-
 sette is rejected.

A further sample embodiment is shown
 in Figs 11 and 12. The container 100 is
 again divided by means of inner strips 101
 into a cassette receiving chamber and a
 lateral channel in which the lever 102 can
 move. The lever 102 engages with its arm
 103 beneath the cassette and is preten-
 sioned towards the outside by means of the
 helical compression spring 104 which en-
 gages with the lug 105 of the lever. As in
 the sample embodiments described pre-
 viously, the lever 102 has a cam 106 which

is complementary in shape to that of the notch in the cassette.

The lever is guided in the container by means of two studs 107 which are anchored in lateral guide slots 107a inside the container; the guide slots are formed in the covering walls 108, 108' of the container 100.

Beyond the cam 106 the lever arm 109 extends as far as the front opening of the container 100, where the lever arm 109 is cut off so that a key 110 is formed. The key is provided with a lug 111 with oblique surface 112, which engage in excisions 113 in the inner strips and can thus be locked.

The cassette is in this way held in the storage position according to Fig. 11. When pressure is exerted on the key 110 the lug 111 is released and the spring 104 conveys the lever 102 outwards, and with it the cassette resting on the lever arm 103. The extension of the lug 105 is so calculated that in the outer end position of the lever the lug rests against the side wall 114 of the container and thus limits the outward pivoting movement of the lever 102 about the stud 107, but allows the cam 106 to come so far out of the notch in the cassette that the latter can now be removed completely, as the cam 106 is resiliently deflected sideways (the whole lever 102 is made of a plastic which is resiliently deformable to a limited extent). It is easily apparent that "incorrect" insertion of the cassette is impossible.

Figs. 13 and 14 show a further sample embodiment. It differs from the one described last in that the locking is not effected by means of a key fitted on the lever 102', but the key 120 is formed on the side wall 121 of the container for which purpose two slot-like cuts are made in the latter. The key 120 is accordingly arranged on the end of a tongue 122 which can be deflected sideways, and its lug 123 engages over the cassette itself. Incorrect insertion of the cassette is again impossible, since the cam-carrying lever arm 109' with cam 106' is pressed by the guide rail 124 into the cassette notch and, if the latter is absent, is jammed.

WHAT WE CLAIM IS:

1. A cassette storage container for a cassette incorporating an excision in the body thereof, the container including:

a resiliently biased ejection member operative to allow insertion of a cassette into the body of the container against the force of the resilient bias,

a releasable locking means to lock a cassette in a storage position, wherein:

the ejection member has a lug to enter the excision of a correctly inserted cassette and is mounted so as to be movable to

engage and disengage the lug with the excision,

the releasable locking means is arranged to lock a cassette in the storage position when the cassette is inserted into the container against the force of the resilient bias and the lug engages the excision, but is inoperative to lock a cassette in the storage position if the lug and the excision of the cassette are not engaged.

2. A container as claimed in claim 1 in which the ejection member is so arranged in the body of the container that when a correctly inserted cassette is released from the storage position the ejection member carries the cassette out of the storage position to a position in which the ejection member resiliently bears against the cassette to oppose removal of the cassette but does not prevent removal of the cassette.

3. A container as claimed in claim 1 or 2 in which the resilient bias is provided by a spring.

4. A container as claimed in any preceding claim in which the ejection member comprises a lever having two arms, one arm being arranged to engage under an inserted cassette and the other arm carrying the lug.

5. A container as claimed in any preceding claim in which manually actuable means for releasing the locking means are located adjacent an opening in the container through which a cassette is to be inserted.

6. A container as claimed in any preceding claim in which the releasable locking means includes a key movable between a first position in which it interengages with the ejection member to lock the ejection member and a second position in which it is disengaged from the ejection member.

7. A container as claimed in claim 6 when dependent on claim 5 and claim 4 in which the key has a flat portion the innermost edge of which is in the form of a stop and guide surface which interengages with the ejection member in the first position and past which the lug carrying lever arm is guided during movement of the ejection member out of the storage position.

8. A container as claimed in claim 7 in which the body of the container comprises a housing of generally rectangular cross-section having side walls and front and back face walls and in which the ejection member and locking means are located in a channel formed adjacent one side wall of the housing and bounded by opposite parallel face walls and said one side wall of the housing on three sides and on the fourth side by strips projecting inwardly from the opposite parallel face walls to define a slot through which the lug on the ejection member passes to engage a cassette when, in

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is complementary in shape to that of the notch in the cassette.

The lever is guided in the container by means of two studs 107 which are anchored in lateral guide slots 107a inside the container; the guide slots are formed in the covering walls 108, 108' of the container 100.

Beyond the cam 106 the lever arm 109 extends as far as the front opening of the container 100, where the lever arm 109 is cut off so that a key 110 is formed. The key is provided with a lug 111 with oblique surface 112, which engage in excisions 113 in the inner strips and can thus be locked.

The cassette is in this way held in the storage position according to Fig. 11. When pressure is exerted on the key 110 the lug 111 is released and the spring 104 conveys the lever 102 outwards, and with it the cassette resting on the lever arm 103. The extension of the lug 105 is so calculated that in the outer end position of the lever the lug rests against the side wall 114 of the container and thus limits the outward pivoting movement of the lever 102 about the stud 107, but allows the cam 106 to come so far out of the notch in the cassette that the latter can now be removed completely, as the cam 106 is resiliently deflected sideways (the whole lever 102 is made of a plastic which is resiliently deformable to a limited extent). It is easily apparent that "incorrect" insertion of the cassette is impossible.

Figs. 13 and 14 show a further sample embodiment. It differs from the one described last in that the locking is not effected by means of a key fitted on the lever 102', but the key 120 is formed on the side wall 121 of the container for which purpose two slot-like cuts are made in the latter. The key 120 is accordingly arranged on the end of a tongue 122 which can be deflected sideways, and its lug 123 engages over the cassette itself. Incorrect insertion of the cassette is again impossible, since the cam-carrying lever arm 109' with cam 106' is pressed by the guide rail 124 into the cassette notch and, if the latter is absent, is jammed.

WHAT WE CLAIM IS:

1. A cassette storage container for a cassette incorporating an excision in the body thereof, the container including:

a resiliently biased ejection member operative to allow insertion of a cassette into the body of the container against the force of the resilient bias,

a releasable locking means to lock a cassette in a storage position, wherein:

the ejection member has a lug to enter the excision of a correctly inserted cassette and is mounted so as to be movable to

engage and disengage the lug with the excision,

the releasable locking means is arranged to lock a cassette in the storage position when the cassette is inserted into the container against the force of the resilient bias and the lug engages the excision, but is inoperative to lock a cassette in the storage position if the lug and the excision of the cassette are not engaged.

2. A container as claimed in claim 1 in which the ejection member is so arranged in the body of the container that when a correctly inserted cassette is released from the storage position the ejection member carries the cassette out of the storage position to a position in which the ejection member resiliently bears against the cassette to oppose removal of the cassette but does not prevent removal of the cassette.

3. A container as claimed in claim 1 or 2 in which the resilient bias is provided by a spring.

4. A container as claimed in any preceding claim in which the ejection member comprises a lever having two arms, one arm being arranged to engage under an inserted cassette and the other arm carrying the lug.

5. A container as claimed in any preceding claim in which manually actuable means for releasing the locking means are located adjacent an opening in the container through which a cassette is to be inserted.

6. A container as claimed in any preceding claim in which the releasable locking means includes a key movable between a first position in which it interengages with the ejection member to lock the ejection member and a second position in which it is disengaged from the ejection member.

7. A container as claimed in claim 6 when dependent on claim 5 and claim 4 in which the key has a flat portion the innermost edge of which is in the form of a stop and guide surface which interengages with the ejection member in the first position and past which the lug carrying lever arm is guided during movement of the ejection member out of the storage position.

8. A container as claimed in claim 7 in which the body of the container comprises a housing of generally rectangular cross-section having side walls and front and back face walls and in which the ejection member and locking means are located in a channel formed adjacent one side wall of the housing and bounded by opposite parallel face walls and said one side wall of the housing on three sides and on the fourth side by strips projecting inwardly from the opposite parallel face walls to define a slot through which the lug on the ejection member passes to engage a cassette when, in

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use, it is inserted into the housing.

9. A container as claimed in claim 8 in which the flat portion of the key is arranged for sliding movement along the inwardly projecting strips and is supported against the adjacent side wall of the housing by an extension projecting from the flat portion of the key.

10. A container as claimed in claim 9 in which the inward displacement of the key is limited by the abutment of the key against the outer edges of both the adjacent side wall and strips, the abutting position being said first position of the key, and in which the outward displacement of the key is limited by the engagement of a lug having a blocking surface and being located on the key with an associated slot guide having a blocking surface, the engaging position being said second position of the key.

11. A container as claimed in any of claims 4 and 6 to 10, or claim 5 when dependent on claim 4, in which the lug carrying arm is longitudinally divided, one of the longitudinal sections carrying the lug and having a spring tongue extending towards an adjacent side wall of the body of the container and the other longitudinal section having a lateral projection formed thereon and arranged for camming engagement with a control strip formed on a wall of the body of the container adjacent the projection, the arrangement being such that the camming engagement is caused by inward movement of the ejection member beyond the position corresponding to the storage position of a cassette and the engagement is operative to initiate tilting of the outer end of the ejection member toward the said adjacent wall of the body of the container.

12. A container as claimed in claim 3 or any of claims 4 to 11 when dependent on claim 3 in which another lug is formed on the ejection member and in which the spring means is a compression spring acting against said another lug.

13. A container as claimed in claim 12 in which the spring is a helical compression spring and its movement is guided by an elongate member which abuts the spring over at least part of its length.

14. A container as claimed in any of claims 1 to 4 in which the releasable locking means are provided by a tongue formed on the ejection member and guided in a slot guide in a side wall of the container the arrangement being such that when a cassette is fully inserted an enlarged part of the tongue is located in a correspondingly enlarged region of the slot guide.

15. A container as claimed in claim 14 or any of claims 1 to 4 in which the lug on the

ejection member is resiliently biased by a guide strip toward the middle of the container when the ejection member is in a position corresponding to the cassette storage position.

16. A container as claimed in any of claims 1 to 4 in which the ejection member is mounted for pivotal movement about an axis parallel to the direction of insertion of a cassette between a locking position and an unlocking position.

17. A container as claimed in claim 16 in which a control camming slide is provided which cooperates with the ejection member when a cassette is inserted to cause the ejection member to pivot from the unlocking position to the locking position.

18. A container as claimed in any of claims 1 to 5 in which the ejection member is provided with a pair of studs extending on opposite sides of the member and located in elongate guides to allow pivotal and sliding movement of the ejection member.

19. A container as claimed in claim 18 or any of claims 1 to 5 in which the ejection member is provided with a resilient portion which is arranged to engage the body of the container when the ejection member is in the position corresponding to the cassette storage position and which is resiliently deformable out of engagement with the body of the container to release the locking means.

20. A container as claimed in claim 18 or any of claims 1 to 5 in which the body of the container is provided with a resilient portion which is arranged to engage a correctly inserted cassette when the cassette is in the cassette storage position and which is resiliently deformable out of engagement with the cassette to release the locking means.

21. A container as claimed in any preceding claim in which walls of the body of the container which, in use, abut the faces of the cassette are provided on their exterior faces with stacking guides extending in the direction of insertion of a cassette.

22. A cassette storage container for a cassette incorporating an excision in the body thereof, the container being substantially as herein described with reference to and as illustrated by Figures 1 to 4, by Figures 5 and 6, by Figures 7 to 10, by Figures 11 and 12 or by Figures 13 and 14 of the accompanying drawings.

ABEL AND IMRAY,
Chartered Patent Agents,
Northumberland House,
303-306 High Holborn,
London, WC1V 7LH.