Nov. 22, 1927. 1,650,304

A. H. SIDEBOTHAM

CIGARETTE CASE

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Fig. 1.

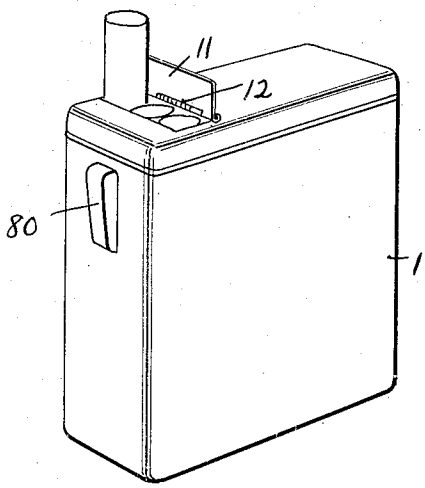


Fig. 2.

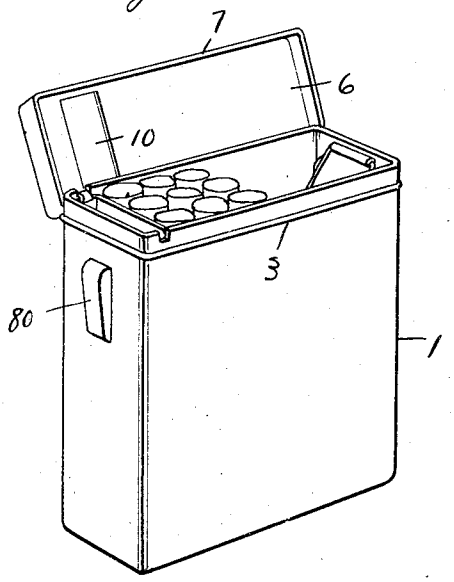


Fig. 3.

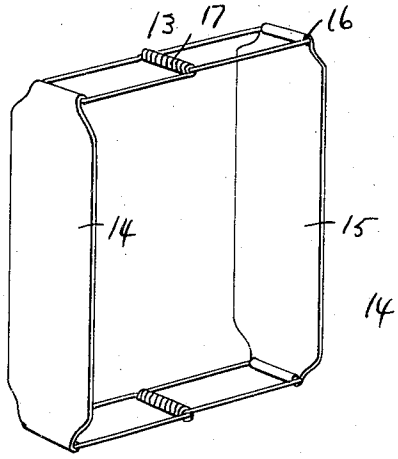


Fig. 4.

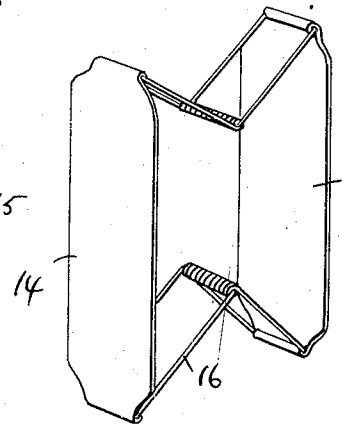
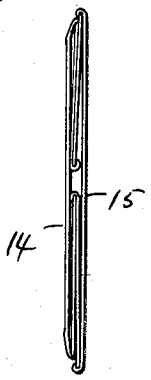


Fig. 5.



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Fig. 6.

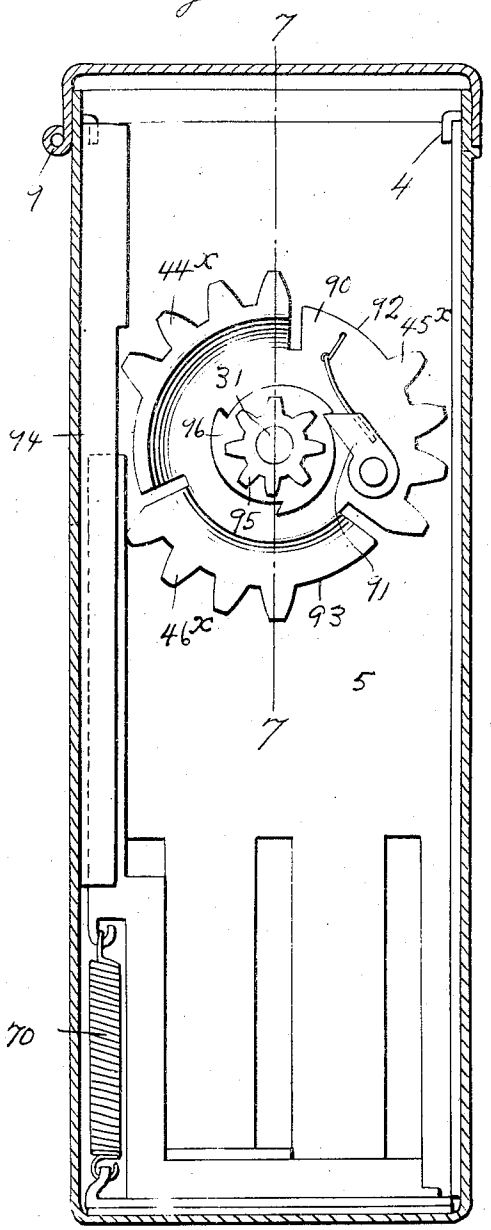


Fig. 7.

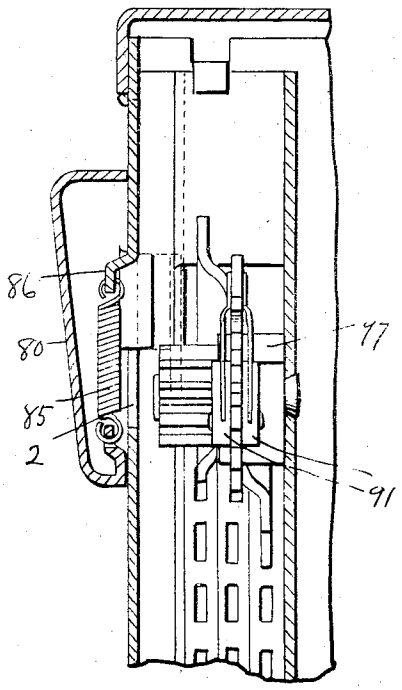
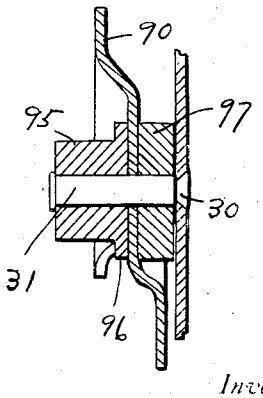


Fig. 8.



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CIGARETTE CASE

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Fig. 9.

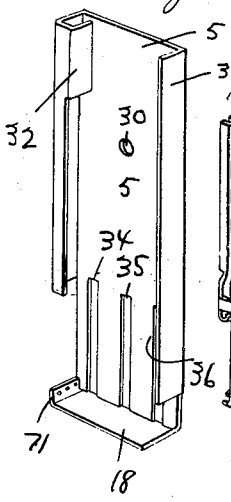


Fig. 10

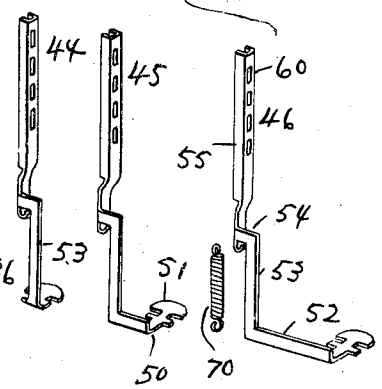


Fig. 11.

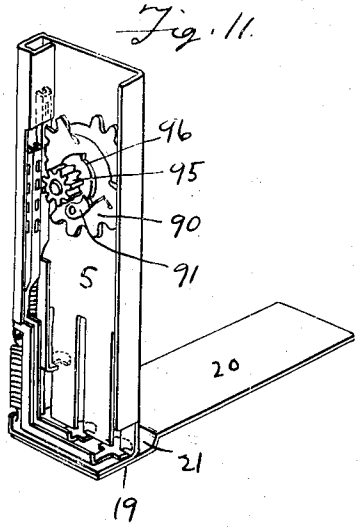


Fig. 12.

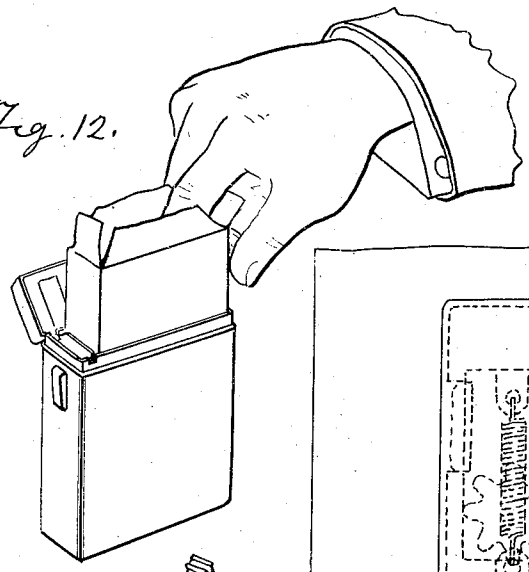


Fig. 13.

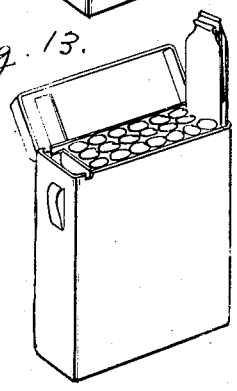


Fig. 14.

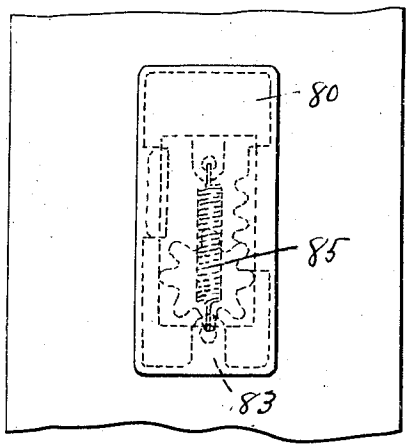
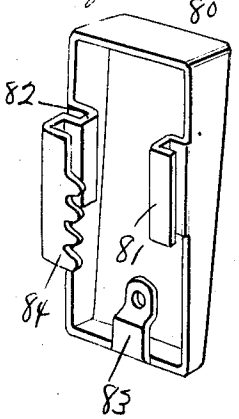


Fig. 15.



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Patented Nov. 22, 1927. 1,650,304

UNITED STATES PATENT OFFICE.

ARTHUR H. SIDEBOTHAM, OF GRAND RAPIDS, MICHIGAN.

CIGARETTE CASE.

Application filed February 21, 1827. Serial No. 169,870.

The object of my present invention is the provision of a cigarette case adapted to contain and preserve a considerable number of cigarettes in excellent condition until the last cigarette is used, and one equipped with means for partially projecting the cigarettes one by one, so that after a cigarette is partially projected from the casing, the casing may be used as a handle for the disposition of the cigarette between the lips of the user, and the completion of the withdrawal of the cigarette may be affected by the movement of the casing away from the lips.

In other words my invention contemplates the provision of a one hand cigarette case, i. e. a case so characterized that the employment of only one hand is necessary for the partial projection of the cigarettes one by one from the casing and the presentation of each cigarette as projected to the lips, through the medium of the casing employed as a handle and the removal of the casing from the cigarette held between the lips of the user.

To the attainment of the foregoing the invention consists in the improvement as hereinafter described and definitely claimed.

In the accompanying drawings, forming part of this specification:—

Figure 1 is a perspective showing my novel cigarette case with a cigarette partially projected therefrom.

Figure 2 is a similar view showing the cover complementary to the casing body as open so as to permit of the placing of cigarettes in the casing body.

Figure 3 is a perspective as showing in expanded state the spring actuated follower of my improvement.

Figure 4 is a perspective showing the follower in partially compressed state.

Figure 5 is an edge elevation showing the follower in fully compressed state.

Figure 6 is an enlarged vertical section taken in a plane extending through the chamber of my improvement in which the major portion of the mechanism for projecting the cigarettes one by one is disposed.

Figure 7 is a fragmentary section taken at right angles to Figure 6 and in the plane indicated by the line 7—7 of Figure 6.

Figure 8 is a detail view of the gearing comprised in my invention taken in the plane of the line 7—7 of Figure 6.

Figure 9 is a perspective view showing the wall which is arranged in the casing body and spaced from one end of the wall thereof to form the chamber for the reception of the said projecting mechanism.

Figure 10 comprises perspective of the three projectors included in my invention, and also comprises a retractile spring, it being understood that there is one of such a spring employed in conjunction with each projector for the retraction thereof subsequently to the projection of a cigarette from the casing after the manner shown in Figure 1.

Figure 11 is a perspective showing the wall illustrated in Figure 9 in association with the projecting mechanism and also showing said wall in proper relation to a wall through the medium of which the lower edges of the cigarettes are maintained in spaced relation to the bottom wall of the casing body.

Figure 12 is a perspective illustrative of a convenient means for placing a pack of cigarettes in the casing body of my improvement, and hereinafter explicitly referred to.

Figure 13 is a perspective illustrative of the manner in which the follower of my improvement is disposed in the casing body subsequently to the placing of a pack of cigarettes in said body.

Figure 14 is a fragmentary elevation taken from a view point at the left at Figure 1 and showing on an enlarged scale the rectilinearly movable finger piece of my improvement and certain parts adjacent thereto.

Figure 15 is an enlarged interior perspective of the said rectilinearly movable finger piece.

Similar numerals of reference designate corresponding parts in all the views of the drawings.

The casing body 1 of my improvement is provided in one of its end walls with an opening 2, Figure 7, and the said casing body is preferably provided adjacent to its upper end with a rib 3. I would also have it understood that retaining lips 4 are struck from side walls of the body 1 adjacent to one end thereof, and are bent inwardly and downwardly as best shown in Figure 6 so as to engage the wall 5 and serve to retain said wall 5 in proper working position in the body 1.

Associated with the casing body 1 is a cover 6 which is flanged as designated by 7 and is hinged at one longitudinal edge to the

body 1 as designated by 9 in Figure 6 and is designed when closed to be detachably retained on the upper end of the body 1 by frictional contact.

In the cover 6 is an opening 10 for the projection of cigarettes one by one from the case, and it will be noted by particular reference to Figure 1 that the said opening 10 is normally closed by a door 11 which is hingedly connected to the cover 6 and is designed to be normally, though yieldingly maintained in a closed position through the medium of a spring 12. Manifestly the said door 11 will serve to effectively close the case of my invention when the said case is carried in the pocket, but when a cigarette is ejected from the case after the manner shown in said Figure 1, the door 11 will be opened by the projection of the cigarette and will be held in open position until the cigarette is completely withdrawn from the case in the manner before described, after which by virtue of the spring 12, the door 11 will be promptly closed, and will be held in tightly closed position by the said spring 12.

The follower or cigarette pressing and feeding element of my improvement is designated generally by 13 and is best illustrated in Figures 3, 4, and 5. The said follower is removably arranged in the casing body 1, and is designed to be inserted in the casing body 1 after the placing in the said body 1 of a pack of cigarettes removed from an ordinary wrapper. The said follower 13 is made up of opposite plates 14 and 15, lever members 16 interposed between the plates 14 and 15 and hingedly connected to the end thereof as designated by 16, and coiled springs 17 through the medium of which the lever members 16 are hingedly connected together and this in such manner that when the follower is partially compressed as shown in Figure 4 or fully compressed as shown in Figure 5, the springs 17 will tend to move the follower plate 14 in a direction away from the follower plate 15 or toward the plate or wall 5 disposed in the casing body 1. Manifestly this capacity of function of the follower 13 will insure the three foremost cigarettes of a group being maintained laterally against the side wall 5, after the manner shown in Figure 2.

The lower end of the wall 5 is not disposed directly on the bottom wall of the casing body 1. On the other hand the flange 18 at the lower end of the wall 5 is disposed on the portion 19 of a wall 20, the wall 20 being provided with a deflection 21, Figure 11, whereby its major portion disposed at the right of the wall 5 will be spaced above the bottom wall of the casing body 1. The said major portion of the plate 20 supports the cigarettes or in other words the lower ends of the cigarettes are opposed to said major portion of the plate 20 with the result that the lower ends of the cigarettes immediately adjacent to the wall 5 will be maintained above the bottom wall of the casing body 1 so that the feet of the projectors may readily act against the lower end of the cigarettes for the lifting of the cigarettes and the projection of the same from the case.

The wall 5 is apertured at 30 for the reception of the shaft 31 which is fixed to said wall and constitutes an important part of my invention as hereinafter explicitly referred to. It will also be noted that the wall 5 is flanged at 32 and 33, Figures 9 and 11, and is provided in its lower portion with vertical slots designated 34, 35, and 36 respectively. The shank of the cigarette projectors 44, 45, and 46, respectively, are disposed and movable vertically in the said slots 34, 35, and 36, the said shanks being numbered 50, and each being equipped with a horizontally disposed foot 51 adapted to rest below the lower end of a cigarette superposed in upright position on the major portion of the plate 20. In addition to the shank 50 and the foot 51, the projector includes a horizontal portion 52, an upright portion 53, a lateral arm 54 at the upper end of the portion 53 and a channel portion 55 that extends upwardly from the portion 54. It will be noted that the portion 52 of the projector 46 is longer than the corresponding portion of the projector 45, and that the projector 44 lacks the said portion 52, the shank 50 of the foot 51 complementary to the projector 44 being joined directly to the lower end of the vertical portion 53 of said projector 44. It will also be noted by comparison of Figures 7 and 11 that the channel portion of the three projectors are arranged side by side within the flanged portions of the wall 5, and that each channel portion is provided with a plurality of apertures 60, the said apertures 60 being arranged in vertical series as will be clear from Figures 7, 10 and 11.

A retractile spring 70 is employed in conjunction with each projector, the said springs 70 being connected at their lower ends to a flange 71 on the wall 5, and being connected at their upper ends to the arms 54 of their respective projectors. By virtue of this provision, the projectors 44, 45, and 46 will be normally and yieldingly retained with their lower ends on the base flange 18 of the wall 5.

The rectilinearly movable finger piece 80 is arranged at the outer side of one end wall of the casing body 1 and over the opening 2 in said end wall, Figure 7. The said finger piece 80 is of dish form, Figures 1 and 15, and is provided with a flange 81 to engage the wall of the casing body 1 at one side of the opening 2 and is also provided with a flange 82 to engage the end wall of

the casing body 1 in the opposite side of the opening 2, and is further provided with a tongue 83 and a rack 84, the latter being carried by the said flange 82. By virtue of the described engagement of the finger piece 80 with the casing body 1, it will be apparent that the finger piece is strongly held to and on the casing body 1 and yet is free to move rectilinearly up and down on said end wall of the body 1. The tongue 83 reaches upwardly from the lower end of the finger piece 80, Figures 7 and 15, and serve for the connection of one end of a retractile spring 85, Figure 7, the upper end of the said spring 85 being connected to a lug 86 on the end wall of the casing body 1. The said spring 85 serves to yieldingly maintain the finger piece 80 in and return the same to the position shown in Figure 7, relative to the casing body 1 and the remainder of the improvement.

Loosely mounted on the before mentioned shaft 31 is a mutilated gear 90 which is equipped at its opposite sides with spring pressed pawls 91. The said mutilated gear 90 is provided in three different vertical planes with toothed portions 44^x, 45^x, and 46^x, the said toothed portion being arranged at the opposite ends of three neutral portions 92, 93, and 94 comprised in the gear.

Loose and rotatable on the shaft 31 is a spur gear 95 in mesh with the rack 84 of the finger piece 80 and also loose on the shaft 31 is a ratchet disc 96. At 97 is a ratchet disk fixed to shaft 31, the said ratchet disks 96 and 97 being disposed at opposite sides of the gear 90 loose on shaft 31 and being adapted for cooperation with the before-mentioned pawls 91 at opposite sides of the gear 90.

As will be readily understood from Figure 7 one of the toothed portions of the gear 90 engages the opposite portion of the projector 44, another of the toothed portions of the gear 90 engages the apertured portion 45 of the projector 45 and the third of the toothed portions of the gear 90 engages the apertured portions of the projector 46. From this it follows that in operation, the projectors 44, 45, and 46 will be independently actuated in the order named. It will also be understood that subsequently to an operation of the case, the projector that was in play will through the medium of its retractile spring 70 be returned to its lowermost normal position.

In practice, when the finger piece 80 is moved downwardly in mesh with the spur gear 95 the ratchet 96 fixed to said spur gear will be turned, and said ratchet 96 acting against the adjacent pawl 91 causes said pawl to turn the gear 90 around one-third motion, and one of the cigarettes will be projected a considerable distance beyond the cover of the case, so that the case may be conveniently used after the manner of a handle to position the cigarette end between the lips of the user whereupon by moving the case in a direction away from the lips, the cigarette will be completely withdrawn from the case and will be left between the lips of the smoker.

Immediately following the withdrawal of the cigarette as stated, the door 11 will be immediately closed.

After the operation described, the spring 85 returns the finger piece 80 to its normal position and at the same time turns the spur gear 95 and ratchet 96, and then the pawl 91 drops into the next tooth of the ratchet 97, thereby preventing retrograde turning of the gear 90, and the device is ready for another operation.

In charging the casing body 1 of my improvement with a pack of cigarettes I prefer to proceed as follows: First, I remove the follower 13 from the casing body 1. Then I tear off one end of the package of cigarettes. I then push the package of cigarettes about half way down in the casing body 1. Then the other end of the cigarette package is unfolded and the cigarettes are pushed downwardly in the casing body 1 until their lower ends bear against the upper side of the major portion of the plate 20. The cigarette wrapper is then removed, and after compression of the follower 13, the said follower is inserted in the casing body between the end wall thereof remote from the wall 5 and the mass of cigarettes, after which the cover 6 is closed and the device is in readiness of operation in the manner before described.

It will be apparent from the foregoing that notwithstanding the adaptability of my novel cigarette case to be used in the manner described, the said case is simple and compact in construction, is reliable in operation and in general is well adapted to withstand the usage to which devices of corresponding character are ordinarily subjected.

I have entered into a detailed description of the construction and relative arrangement of parts embraced in the present and preferred embodiment of my invention in order to impart a full, clear, and exact understanding of the said embodiment. I do not desire, however, to be understood as limiting myself to the construction and relative arrangement of parts as disclosed, my invention being defined by my appended claims within the scope of which modifications may be made without departure from my invention.

Having thus described the invention, what I claim is:—

1. A cigarette case comprising in combination, means for containing a plurality of cigarettes, means in the first named means for pressing cigarettes toward one portion of said first mentioned means, a plurality of cigarette projectors arranged in said portion

of the first named means and arranged to be operated in succession, means for returning said projectors to their normal position, and finger operated means associated with the first named means and equipped with means for moving the projectors in succession for the projection of cigarettes in succession from the first named means.

2. A cigarette case comprising in combination, means for containing a plurality of cigarettes, means in the first named means for pressing cigarettes toward one portion of said first mentioned means, a plurality of cigarette projectors arranged in said portion of the first named means and arranged to be operated in succession, means for returning said projectors to their normal position, and finger operated means associated with the first named means and equipped with means for moving the projectors in succession for the projection of cigarettes in succession from the first named means; the said finger operated means being arranged exteriorly of and movable relative to the first named means, and the equipment operable by the finger operated means being disposed within the first named means for the engagement of the cigarette projectors.

3. In combination, means for containing a plurality of cigarettes, cigarette supporting means spaced above the bottom of the first named means, a plurality of cigarette projectors having feet normally resting below the plane of the said cigarette supporting means at one end thereof, means for pressing cigarettes toward said end, means in the first named means for engaging and operating the projectors in succession, and operative controlled means exterior of the first named means for actuating the said projector moving means.

4. In combination, means for containing a plurality of cigarettes, cigarette supporting means spaced above the bottom of the first named means, a plurality of cigarette projectors having feet normally resting below the plane of the said cigarette supporting means, means in the first named means for engaging and operating the projectors in succession, and operative controlled means exterior of the first named means for actuating the said projector moving means; each of the said projectors being connected with spring means for returning the projector to its normal position subsequently to an operation of the projector.

5. In combination, a plurality of projectors movable rectilinearly in succession, means for returning each projector to normal position subsequently to an operation thereof, and means of turnable character for moving said projectors in succession, said turnable means comprising gear sectors arranged in different planes and each engaged with one of the projectors.

6. In combination, a plurality of projectors movable rectilinearly in succession, means for returning each projector to normal position subsequently to an operation thereof, and means of turnable character for moving said projectors in succession, said turnable means comprising gear sectors arranged in different planes and each engaged with one of the projectors; each of the projectors being provided with a portion of channel cross section and being provided in said channel portion with apertures to receive each of the gear sectors.

7. In combination, a casing body, a wall arranged in said body in spaced relation to one end wall thereof, a wall arranged in the body and spaced above the bottom thereof and extending to a point adjacent to said upright wall, said upright wall having a plurality of vertical slots, projectors arranged and movable side by side between walls in the body and having feet and shanks carrying said feet and movable in said slots and also having upright apertured portions, means in the body for passing cigarettes toward the slotted wall, a shaft fixed to the slotted wall and having a spur gear and a ratchet disk loose on the shaft and a ratchet disk fixed to the shaft, a gear loose on said shaft and having pawls to engage said ratchet discs and also having toothed portions in different planes to engage the apertured portions of the projectors and also having neutral portions between said toothed portions, springs for returning the projectors to normal position, a rectilinearly movable finger piece guided on one wall of the body and having a ratchet projecting through an opening in said wall of the body and meshed with said spur gear, and a spring connected to the finger piece and the body for the return of the finger piece to its normal position.

8. In combination, means for receiving a plurality of cigarettes, projectors operable in succession for projecting cigarettes in succession from said means, finger operable means, and means in the first named means and operable by the finger operable means for moving the projectors in said succession; the said projectors and the means for operating the same in succession being carried by a wall disposed in the first named means.

9. In combination, a casing body having an opening in one end wall thereof, a wall fixed in the casing body adjacent to the apertured wall thereof and spaced from said wall, and having an aperture and also having a plurality of slots, and further having a flange at one vertical edge, a plurality of projectors having channel portions, and also having arms and portions depending from the arms and provided with shanks movable in the slots of the wall and terminating in feet, means in the body for pressing ciga-

rettes against said slotted wall, a shaft fixed tight in the aperture of the slotted wall, a spur gear and ratchet disc loose on said shaft, a ratchet disk fixed to the shaft, a gear loose on the shaft and arranged between said ratchet disc and having toothed portions in different planes in engagement with the channel portions of the projectors, and also having pawls to engage said ratchet disc, a finger piece guided on the apertured wall of the body and having a ratchet disposed in said aperture and within the body and meshed with the spur gear on the shaft, and a retractile spring connecting the body and the finger piece and adapted to return the latter to normal position.

10. In combination, a casing body having an opening in one end wall thereof, a wall fixed in the casing body adjacent to the apertured wall thereof and spaced from said wall, and having an aperture and also having a plurality of slots, and further having a flange at one vertical edge, a plurality of projectors each having channel portions, and also having arms and portions depending from the arms and provided with shanks movable in the slots of the wall and terminating in seats, means in the body for seating cigarettes against said slotted wall, a shaft fixed tight in the apertures of the slotted wall, a spur gear and ratchet disc loose to said shaft, a ratchet disk fixed to the shaft, a gear loose on the shaft and arranged between said ratchet discs and having toothed portions in different planes in engagement with the channel portions of the projectors, a finger piece guided on the apertured wall of the body and having a rack disposed in said aperture and within the body and meshed with the spur gear on the shaft, and a retractile spring connecting the body and the finger piece and adapted to return the latter to normal position; the said finger piece being of dish form whereby it closes said aperture in the wall of the body and hides said retractible spring from view.

In testimony whereof I affix my signature.

ARTHUR H. SIDEBOTHAM.