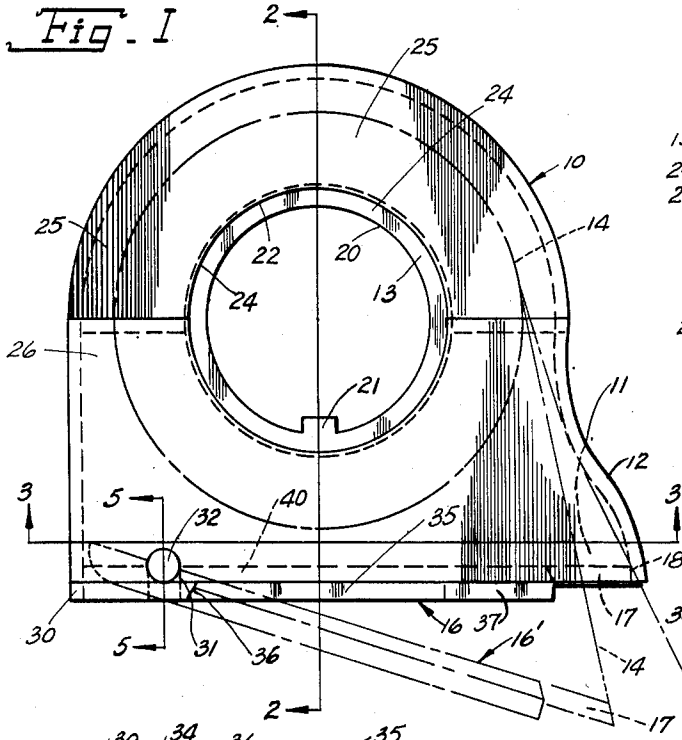
Dec. 23, 1952 N. S. WATERMAN 2,622,815

SANITARY ADHESIVE TAPE DISPENSER

Filed Nov. 16, 1950 2 SHEETS—SHEET 1

Fig. 1



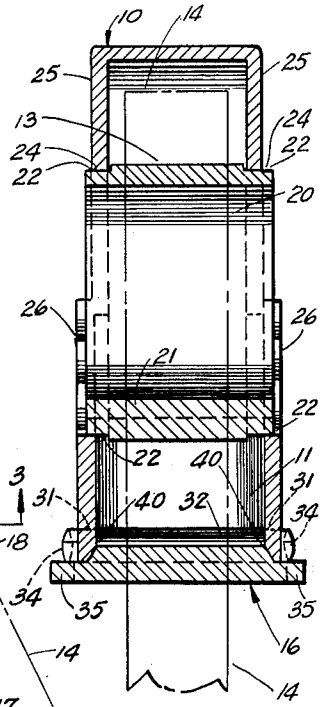


Fig. 2

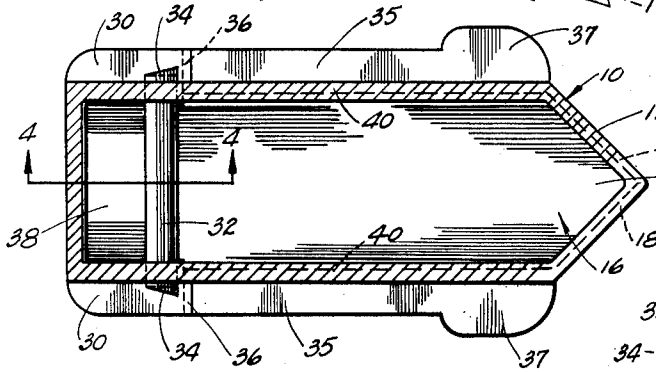


Fig. 3

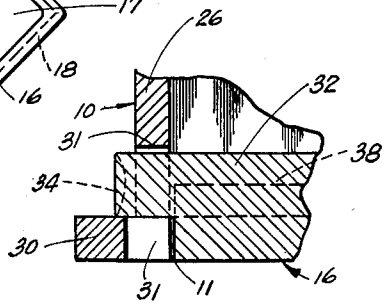


Fig. 5

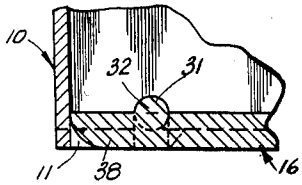


Fig. 4

INVENTOR
NEIL S. WATERMAN
BY Edward Waterman
ATTORNEY

Dec. 23, 1952 N. S. WATERMAN 2,622,815

SANITARY ADHESIVE TAPE DISPENSER

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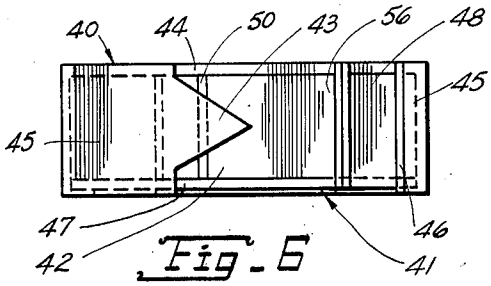


Fig. 6

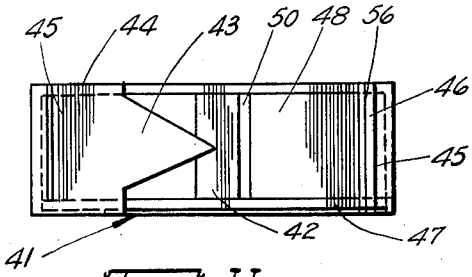


Fig. 11

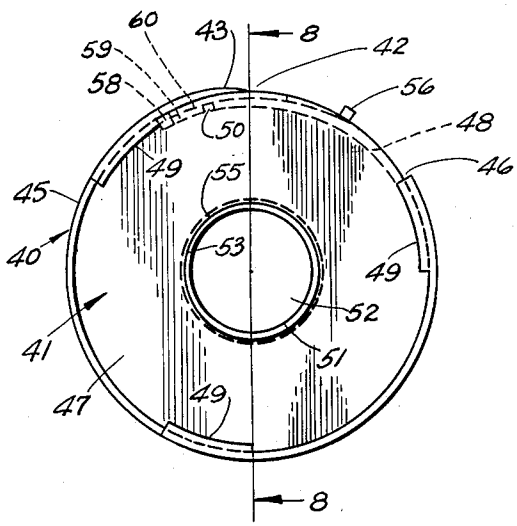


Fig. 7

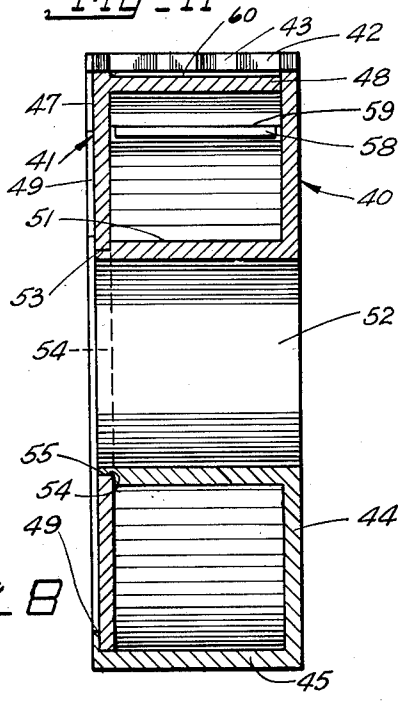


Fig. 8

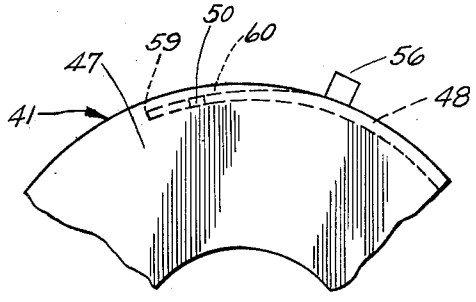


Fig. 10

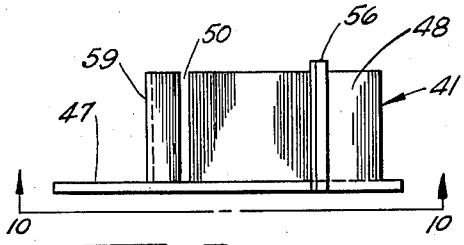


Fig. 9

INVENTOR
NEIL S. WATERMAN
BY Edward Fetherston
ATTORNEY

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UNITED STATES PATENT OFFICE

2,622,815

SANITARY ADHESIVE TAPE DISPENSER

Neil S. Waterman, Tarrytown, N. Y.

Application November 16, 1950, Serial No. 195,931

5 Claims. (Cl. 242—55.5)

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This invention relates to new and useful improvements in sanitary adhesive tape dispensers.

At the present time adhesive tape is generally sold on metal spools which snap into place in a casing formed of an annular member of sheet metal having an external rolled edge along one side and an internal rolled edge along the other side. Said annular member is formed with several inwardly pressed tits behind which one of the flanges of the spool engages when it is forced into said casing. The tape is used by snapping the spool out of the casing, putting the casing down, pulling off a desired length of adhesive tape, and then with a knife or a pair of scissors cutting off the selected length of tape. The casing is then lifted up and the spool is re-engaged into it.

This invention proposes the construction of a new dispenser from which a length of adhesive tape may easily be drawn and then torn off in an especially simple way without requiring the use of scissors, knife, or other cutting implement to sever the tape. With the new construction there with be no need to go through the process explained in the previous paragraph of separating the spool of tape from casing, placing the casing on an object, drawing a length of tape off the spool, cutting the tape with scissors, knife or other implement, and then reassembling the spool in the casing.

In accordance with this invention the new dispenser in characterized by a casing formed of several sections and adapted to fully enclose a roll of tape, and having an open portion through which the end portion of the tape may pass. One of said casing sections is provided with a point located in the vicinity of the open portion and having sharp tape tearing edges over which said tape may be torn. It is also contemplated that one of said sections of said casing should be movable and in one position of said movable section said tape shall be clamped against said point by engaging between sections of said casing to facilitate tearing off of the tape against the point. The parts are also arranged so that in another position of the movable casing section the torn end of the remaining tape is free from being clamped by said casing sections and may be gripped and pulled for drawing out as much additional tape as needed. After a desired quantity of tape has been drawn out, the movable casing section may be returned to its first position in which the new drawn piece of tape may be torn off.

The broad principals of the new dispenser as

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characterized in the previous paragraphs may be embodied in various forms of dispensers, either portable or for stationary attachment to supports. In this following specification two forms have been disclosed and described. In one of these forms the movable section is hingedly mounted in order to be movable into the two positions referred to. In the other form the movable section is rotatively mounted in order to be moved into the two positions specified.

It is another object of this invention to so construct the parts of the new dispenser that they may be made 100% from a rigid type of plastic material. This construction is highly desirable in that no metal knives, or other foreign parts are required in the dispenser for facilitating the tearing off of the tape. If desired some of said plastic material may be transparent so that the tape in the dispenser is visible so that the quantity left is easily seen. Another feature resides in the fact that the new dispenser may be of the same size as present day tape holders.

A still further object of this invention resides in so constructing the parts of the dispenser that they may be merely snapped together into assembled condition.

A further object of the invention is the construction of a device as described, which is simple and durable and which may be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a front elevational view of a sanitary adhesive tape dispenser constructed in accordance with one form of this invention.

Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a fragmentary vertical sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a fragmentary enlarged vertical sectional view taken on the line 5—5 of Fig. 1.

Fig. 6 is a plan view of another sanitary adhesive tape dispenser constructed in accordance with another form of this invention.

Fig. 7 is a front elevational view of Fig. 6.

Fig. 8 is an enlarged vertical sectional view taken on the line 8—8 of Fig. 7.

Fig. 9 is a plan view of one of the sections of the dispenser shown in Figs. 6–8.

Fig. 10 is a fragmentary enlarged elevational view looking in the direction of the line 10—10 of Fig. 9.

Fig. 11 is a plan view similar to Fig. 6 but illustrating the movable section of the casing of the dispenser in its second position.

The new sanitary adhesive tape dispenser, or dispenser for other types of tapes, ribbons and strips, in accordance with one form of this invention, includes a casing having a main section 10 having an open bottom portion 11 formed with a pointed end 12. A cylindrical support 13 for a roll of adhesive tape which is schematically indicated by reference numeral 14, is mounted in said casing 10 in order that the end of said tape 14 may be drawn through said pointed end 12 of said open bottom portion 11 (see particularly Fig. 1). A base closure casing section 16 is provided for closing said open bottom portion 11. This base closure section 16 has a pointed end 17 formed with sharp tape tearing edges 18 normally engaging in said pointed end 12 of said open bottom portion 11 in order that said tape 14 may be torn off said pointed end 17 of said base closure section 16. Said base closure section 16 is hingedly mounted on the bottom portion 11 of said main section 10 in order that it may hinge open to make additional tape 14 from said roll 14 accessible to be drawn over said pointed end 17 of said base closure section 16.

The cylindrical support 13 is formed with a central opening 20. This opening 20 is provided with an inwardly directed key portion 21 by which the support 13 may be readily turned for winding the tape 14 on it. The ends of the support 13 are formed with reduced portions 22 of slightly smaller diameter than the central portion of the support to form shoulders for turnably holding the support 13 in position in the casing 10. The main casing section 10 is provided with circular side openings 24 in its side walls into which the reduced ends 22 of the support 13 engage. Each of the side walls of the main section 10 is formed with a top portion 25 above the horizontal center of the openings 24 spaced slightly inwards of a bottom portion 26 below the horizontal center of the openings 24 in order that the section 10 may easily be formed from rigid type plastic material with a simple mold which opens up and down. By offsetting the portions 25 and 26 of each of the side walls of the section 10 as illustrated in Fig. 2 it is possible to mold the openings 24 in said side walls with a simple separation die. The support 13 is slightly wider than the distance between the bottom portions 26 of the side walls of the section 10 so that the support 13 may easily be engaged in position by flexing the bottom portions 26 of the section 10 apart while forcing the support 13 upwards from the bottom until it snaps into position in the openings 24.

The main section 10 is molded with side flanges 30 at one end portion of the said open bottom portion 11 of said casing. Openings 31 extend upwards through said flanges 30 and into the bottom portions 26 of the side walls of the section 10, see Fig. 5. The base closure section 16 is provided with a pintle rod portion 32 which normally engages through said openings 31 and which rests upon said side flanges 30 and by which the base closure section 16 is hingedly mounted upon the bottom portion of the casing 10. The dot and dash lines 16' in Fig. 1 indicate a pivoted position of the base closure section 16 using the pintle rod portion 32 as a pivot. The ends of said pintle rod portion 32 are formed with beveled portions 34 for facilitating engaging the ends of said pintle rod portion 32 into said openings 31 and upon said flanges 30. The bevels 34 diverge from the back to the front when the base closure section 16 is held in a horizontal position as illustrated by the full lines on the drawing. The base closure section 16 may be snapped into position, by first holding it in a vertical position at right angles to the bottom of the casing 10 so that the narrow portion between the beveled ends 34 of the pintle rod portion 32 may be engaged into the bottom portions of the openings 31 between the flanges 30. Then the base closure section 16 is forced upwards so that the beveled portions 34 flex the side portions of the main section 10 slightly until they reach positions above the top faces of the flanges 30. Now the base closure section 16 is free to pivot into a closed position.

The base closure section 16 is provided with projecting side portions 35 in the nature of side flanges. The left hand ends of these flanges are formed with beveled portions 36 which mate with complementary beveled ends on the flanges 30. These projecting side flanges 35 have their right hand ends provided with enlarged portions 37 which act as handle portions which may easily be gripped and by which the base closure section 16 may be pivoted open and closed.

The base closure section 16 is provided with a tail portion 38 to the left of the pintle pin portion 32 which normally engages into a portion of the open bottom 11 of the main section 10 for closing same. The base closure section 16 has a portion to the right of the pintle pin portion 32 which extends into the open bottom 11 of the main section 10. This latter portion is formed with beveled sides 40 for insuring a better closed position for the base closure section 16. The base closure section 16 preferably is molded in one piece from rigid type thermoplastic material.

The operation and use of this new adhesive tape dispenser may be understood from the following:

The end of the tape 14 extends down between the pointed end 17 of the base closure section 16 and the pointed end portion 12 of the open bottom portion 11. The base closure section 16 may be pivoted downwards by pushing against the portions 37, to reach a position as illustrated by the dot and dash lines 16'. Now a portion of the tape 14 will be projecting from the bottom of the main casing section 10 and may be manually gripped and pulled off of the pointed end 17 of the base closure 16 to which it normally adheres. Any length of tape 14 may now be drawn out and then the base closure section 16 may be pivoted back to its original position into the open bottom portion 11 of the main casing section 10. The projecting portion of the tape 14 may be torn off by holding the base closure section 16 closed and pulling the tape down against the pointed portion 17 of the base closure section 16. The operation may be repeated for removing additional lengths of tape 14.

Particular attention is called to the fact that lengths of tape 14 may be removed from the dispenser without requiring the use of a pair of scissors or a knife. Moreover, there is no need to separate the casing from the roll of tape, as

is now generally done. The new dispenser is made from three parts, namely, the casing main section 10, the support 13, and the base closure section 16. These parts hold the tape 14 as well as providing means by which lengths of tape may be torn off.

The new dispenser may be constructed of transparent rigid type plastic material so as to act as a display case for the tape therein.

In Figs. 6–11 inclusive another form of this invention has been disclosed. This dispenser includes a casing formed of several sections, namely, two sections, indicated by reference numerals 40 and 41. This casing is adapted to fully enclose a roll of tape. Said casing also is provided with an open portion 42 through which the end portion of said tape may pass. A point 43 is formed on one of said sections, namely, the section 40, and is located in the vicinity of said open portion 42. This point 43 has sharp tape tearing side edges over which the tape may be torn off. One of the sections of said casing, namely, the section 41, is movable and in one position of said movable section, the position illustrated in Fig. 6, said tape will be clamped against said point 43 by engaging between the sections 40 and 41 to facilitate tearing of said tape against said point 43. Said movable section 41 is movable to another position, the position shown in Fig. 11, in which the torn end of the remaining tape will be free from being clamped by the sections 40 and 41, and may be pulled for pulling out additional tape from the casing as required.

The casing section 40 has a disc wall 44 and a skirt wall 45 extending along the edges of said disc wall 44. Said skirt wall 45 is formed with said open portion 42. One end of this open portion 42 is formed with said point 43, and the other end 46 of the opening 42 is merely straight. The casing section 41 includes a disc wall 47 for extending across the skirt wall 45 for closing the casing. The section 41 also has a short skirt wall 48 for extending across the open portion 42 of said casing section 40 for closing said open portion 42. The short skirt wall 48 fits inside of the skirt wall 45 as may be particularly seen from an inspection of Fig. 7.

The casing section 41 is turnably connected with the casing section 40 by several inwardly directed lugs 49 from the skirt wall 45 behind which the disc wall 47 of the casing section 41 engages. The short skirt wall 48 is formed with a slot 50 through which the end of tape from within the casing may pass in order that the end portion of the tape passes through said open portion 42. Means is provided for limiting turning of the casing sections relative to each other so that the casing section 41 may be turned to one position in which said slot 50 is beneath said point 43, as illustrated in Fig. 6, to clamp said tape against said point 43 to facilitate tearing off said tape against the point 43. The casing section 41 may be turned to a second position in which the slot 50 is free of the point 43 and located within the open portion 42, as illustrated in Fig. 11, in order to free the torn end of the remaining tape so that it may be gripped and additional tape pulled out of the casing.

A cylindrical support 51 is formed on one of said casing sections upon which the roll of tape may be engaged. More particularly, the cylindrical support 51 is formed on the casing section 40. This cylindrical support 51 is provided with a central opening 52. The free end of the cylindrical support 51 is provided with a reduced

diameter section 53 forming a back shoulder 54. The disc wall 47 is provided with an opening 55 engaging upon this reduced diameter portion 53. The disc wall 47 also rests against the back shoulder 54. This construction assists in supporting the disc wall 47 and holding it spaced from the disc wall 44.

The short skirt wall 48 is provided with a projecting lug 56 which may be used as a handle for turning the casing section 41. The means for limiting turning of the casing section 41 to the two positions referred to previously, includes the lug 56 which acts as a limiting projection. When the casing section 41 is turned clockwise, in relation to Fig. 7, the lug 56 will strike the end 46 of the opening 42, as illustrated in Fig. 11. This limits turning of the casing section 41 in this direction. The inner face of the skirts wall 45 is formed with a projection 58 against which the end 59 of the short skirt wall 48 may strike to limit turning of the casing section 41 in a counter-clockwise direction in relation to Fig. 7.

The short skirt wall 48 to the left of the lug 56 extends slightly inwards of the periphery of the disc wall 47 forming a space 60, see Fig. 10, to accommodate the thickness of the tape as the tape passes from within the casing, then through slot 50 and over the short skirt wall 48 and beneath the point 43.

The operation of this form of the device may be understood from the following:

While the casing sections 40 and 41 are in a separated position, a roll of tape is placed on the cylindrical support 51. Said casing sections are then placed together with the end of the roll of tape engaging up through the slot 50 and over the short skirt wall 48 and through the opening 42. The casing section 41 is now forced inwards upon the casing section 40 so that the disc wall 47 snaps behind the lugs 49.

A length of tape may be removed from the dispenser as follows: The casing section 41 is turned clockwise by moving the lug 56 against the shoulder 46, as shown in Fig. 11. Now the end of the tape extending through the slot 50 is accessible. It may be gripped and any length of tape pulled from the roll of tape in the casing. The casing section 41 is now turned back to the position shown in Fig. 6 so that the projecting tape is clamped between the point 43 and the short skirt wall 48 of the casing section 41. The tape now may be torn off against the point 43.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by United States Letters Patent is:

1. A sanitary adhesive tape and other tape dispenser, comprising a casing formed of several sections and adapted to enclose a roll of tape, one of said sections having a disc wall, and a skirt wall along the edges of said disc wall, said skirt wall having an open portion one edge of which being formed with a point having sharp tape tearing edges over which said tape may be torn off, and another one of said sections having a disc wall for extending across said skirt wall for closing said casing, and a short skirt wall on a portion of said second named disc wall for

extending across said open portion of said first named skirt wall for closing said open portion, means for turnably connecting said sections, said second named skirt wall having a slot through which a web of said tape may pass in order to pass through said open portion, and means for limiting turning of said sections to one position in which said slot is beneath said point to clamp said tape against said point to facilitate tearing of said tape against said point, and to a second position in which said slot is within said open portion and free of said point in order to free said tape to be pulled out of said casing.

2. A dispenser as defined in claim 1, in which said means for turnably connecting said sections includes small inwardly directed lugs on said first named skirt wall behind which said second named disc wall may engage.

3. A dispenser as defined in claim 1, in which one of said disc walls is provided with a cylindrical support for said roll of tape.

4. A dispenser as defined in claim 1, in which said means for limiting turning of said sections includes cooperating limiting projections and abutting edges on said sections.

5. A dispenser as defined in claim 1, in which said means for turnably connecting said sections includes small inwardly directed lugs on said first

named skirt wall behind which said second named disc wall may engage, one of said disc walls being provided with a cylindrical support for said roll of tape and said cylindrical support acts to hold said disc walls spaced from each other.

NEIL S. WATERMAN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,026,778	Toles	May 21, 1912
1,869,729	Zuckerman	Aug. 2, 1932
1,880,950	Ewing et al.	Oct. 4, 1932
2,080,052	Lemaster	May 11, 1937
2,144,999	Welch	Jan. 24, 1939
2,295,477	Jackson	Sept. 8, 1942
2,295,679	Montbach	Sept. 15, 1942
2,333,378	Jackson	Nov. 2, 1943
2,547,569	Erhardt	Apr. 3, 1951

FOREIGN PATENTS

Number	Country	Date
431,174	Great Britain	July 2, 1935