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C. B. FOWLER
ROLL PAPER HOLDER

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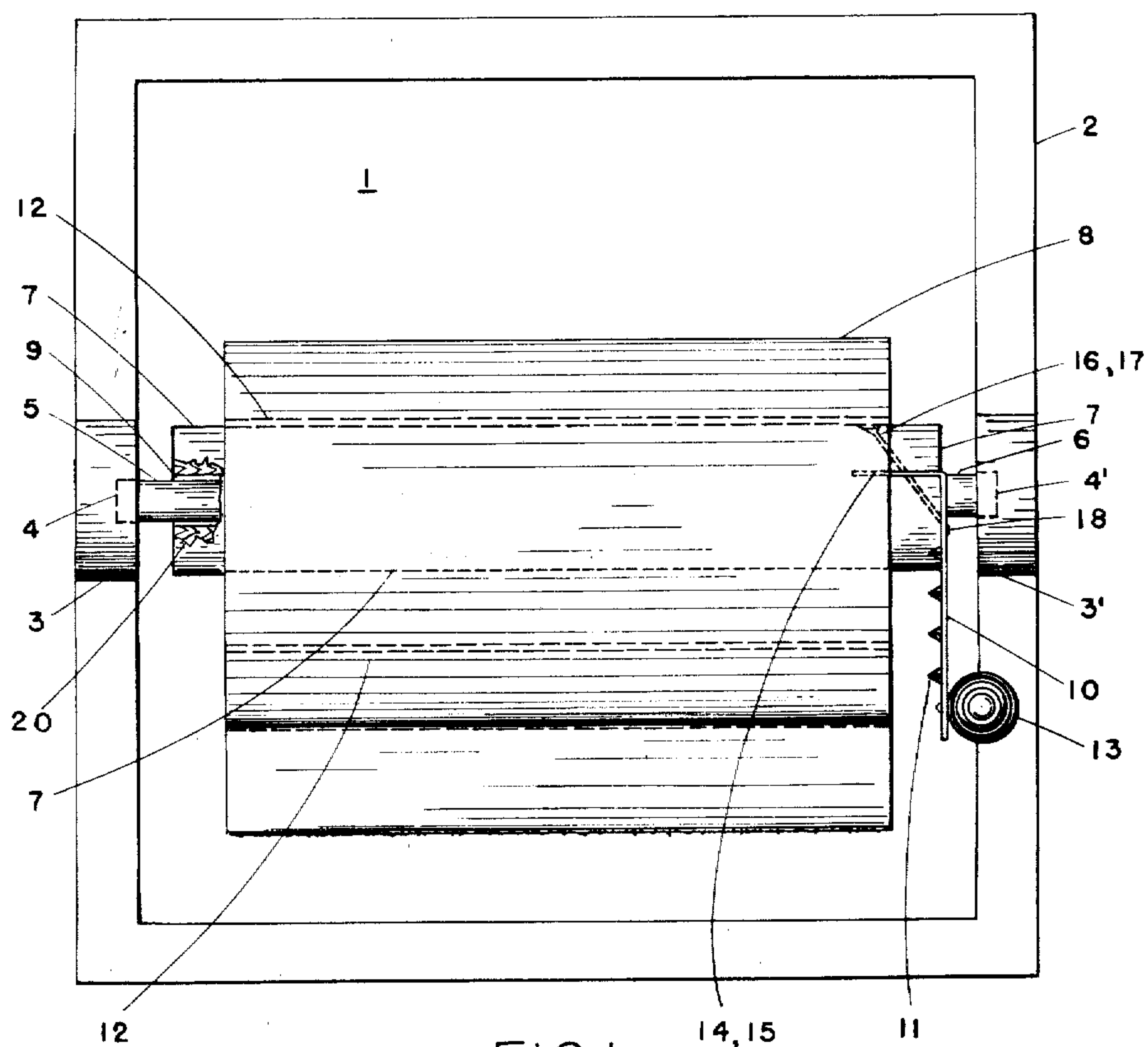


FIG. 1

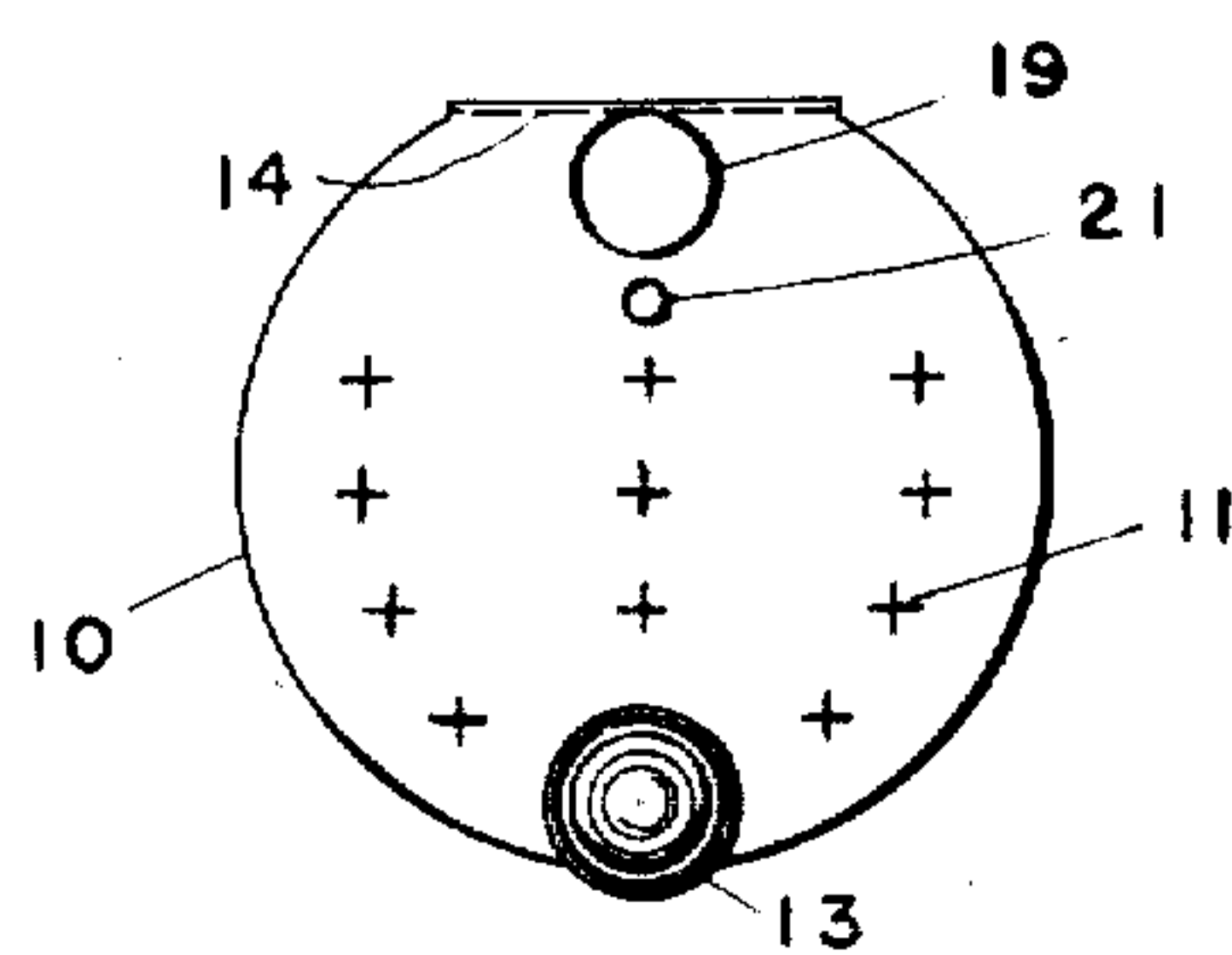


FIG. 2

INVENTOR
Clarence B. Fowler

UNITED STATES PATENT OFFICE

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ROLL PAPER HOLDER

Clarence B. Fowler, Philadelphia, Pa.

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This invention relates to dispensing holders for rolls of paper or similar material, such as is commonly used in kitchens or toilet rooms. This type of paper is usually mounted on cardboard tubes and is perforated or indented transversely at predetermined sections so as to facilitate their separation from the roll. The rolls are usually loosely mounted on wooden or metal cylindrical rods, the ends of which are secured in brackets extending outwardly from the back of the holder. In certain other cases the brackets themselves function as roll supports. In operation, the roll of paper is rotated by manually grasping and pulling forward on an unreeled, unsevered sheet of the paper until the desired quantity is unreeled. Intentional rotation is then discontinued, and a transverse force is manually exerted against the paper where it emerges from the roll. However, this transverse force often subjects the roll to further rotation, resulting in unreeling more paper than desired, or unsightly tears. The operator is compelled, as a result of this defective operation, to use both hands; holding the roll with one hand and tearing the paper apart with the other. This is particularly necessary in the case of relatively heavy kitchen paper.

In efforts to overcome the above defective operation, various methods of exerting friction against the roll of paper have heretofore been proposed. Remedies of this type, however, have proven unsatisfactory, due to continual friction being exerted against the roll; excessive friction resulting in the paper being severed prematurely, whereas too little results in ineffective stoppage of the roll at certain diameters.

An object of this invention is to provide a roll paper holder normally exerting no appreciable friction or tension against a roll of paper installed therein or while in rotation, but designed to instantly stop, when desired, all rotation of the roll, so that the unreeled paper can always be cleanly severed, whether thick or thin.

Another object is to provide a roll paper holder with rotation stopping means adapted to be manually operated by one hand of the operator, a particularly desirable feature for one-handed persons.

Other objects and many of the attendant advantages of this invention will be readily appreciated by reference to the following detailed description when considered in connection with the accompanying drawings, in which like reference numerals designate like parts throughout the figures thereof, and wherein:

Fig. 1 is a front elevation of one form of the

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roll paper holder, with a roll of paper shown mounted on the novel roll rod which incorporates my improvement.

Fig. 2 is a front elevation of the roll paper rotation stopper, prior to attachment to the roll rod of Fig. 1.

Referring to Fig. 1 of the drawing, 1 indicates the roll holder assembly. This particular type of holder has a ceramic base adapted for mounting in a wall or recess, and has a box shaped frame 2, open at the front. Attached to each of the two front vertical edges is a forwardly projecting bracket 3—3', in the inner facing side of each of which is a socket 4—4', adapted to receive the wooden socket studs 5 and 6, respectively, at the ends of wooden roll rod 7. Loosely mounted on rod 7 and free to slide back and forth thereon, is roll of paper 8. Socket stud 6 on one end of rod 7 is integral therewith, whereas socket stud 5 on the opposite end of rod 7 is adapted to slide back and forth a limited distance inside a tubular recess 9 in the adjacent end of rod 7, shown in cut away section 20, against the tension of an internal spring, by means familiar to those versed in the art. Attached to rod 7, adjacent to fixed stud 6, is a roll paper rotation stopper 10 of spring temper sheet metal, and having on its face several miniature pyramids formed from the metal, as shown at 11. Certain of these pyramids face the adjacent wound edges of roll of paper 8, and others the open space between the cardboard tube 12 on which the paper is wound, and rod 7, the sides of such pyramids engaging the inner surface of the tube, to insure functioning of the device with tubes having a minimum of paper thereon. Attached to the opposite side of rotation stopper 10 is a plastic knob 13.

An angular upper end 14 of rotation stopper 10 is attached to the end of rod 7 by being passed over stud 6 through hole 19 in the rotation stopper, and positioned in longitudinal slot 15 in the end of rod 7 adjacent to the base of stud 6. Angular section 14 is locked in place by means of a pin 16, positioned in hole 17 through part of the rotation stopper end of rod 7 and rotation stopper plate 10 beneath stud 6, terminating outside of hole 21 in rivet 18.

A front elevation of rotation stopper 10 is shown in Fig. 2, before being attached to rod 7. Circular opening 19 permits centering rotation stopper 10 over stud 6.

When it is desired to mount a roll of paper 8 in the roll paper holder 1, the roll of paper is placed on rod 7, and stud 5 is then inserted in socket 4 in bracket 3. In this position the roll

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rod with its socket studs is longer than the distance between brackets 3 and 3'. This length is, therefore, decreased by manually pressing against knob 13, thereby sliding stud 5 into tube 9, thus decreasing the exposed length of stud 5 until the opposite stud can be fitted into socket 4' in bracket 3'. The rod and its roll of paper are thus mounted in the roll paper holder, and the roll of paper is free to revolve without appreciable friction.

After a satisfactory quantity of paper is unreeled from roll of paper 8, a slight transverse force towards the right is exerted against the unreeled paper, sliding the roll of paper along the smooth roll rod 7 into contact with rotation stopper 10. The wound edges of the roll of paper and the cardboard tube 12 on which it is wound make an initial frictional contact with the apexes of the pyramids 11, immediately followed by wedge action exerted by the pyramids. One or more of the pyramids also enter the space between the cardboard tube 12 and roll rod 7. The result of these actions is immediate stoppage of any further forward motion of the roll of paper, without damage thereto. The unreeled paper can then be cleanly and precisely torn from the roll, after which it releases itself from contact with rotation stopper 10 by release of the relatively light manual pressure. The flexibility of the sheet metal constituting the rotation stopper enables it to adapt itself to rolls of paper with uneven edges. After initial use, as described, the roll of paper will remain just out of contact with the rotation stopper.

When it is desired to remove the roll of paper or the cardboard tube from the roll paper holder, the roll rod with its socket studs is shortened by pressing against knob 13 until stud 5 can be released from socket 4' and the roll and its contents removed from the holder.

Knob 13 functions both as a means of exerting longitudinal pressure against the roll rod, as previously described, and as a stop to prevent rotation of the roll rod, such rotation being blocked by contact of the knob with bracket 3'. It is thus always available for easy removal of the roll rod and its contents. It has heretofore been difficult to remove the roll rod or roller and its contents from this type of roll paper holder.

The paper rotation stopper is shown as added to a type of roll rod or roller well known to those versed in the art. It may, however, be omitted

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from the roll rod and instead be installed, without the knob, on the inner surface of one of the brackets, so as to contact, when desired, the edges of the roll of paper.

The knob, instead of being located adjacent to the pyramidal wedges, as shown on the drawing, may be located on a suitable extension of the rotation stopper so positioned that the wedges will be less exposed.

The invention may be applied to a wide variety of holders of toilet paper, paper towels, waxed paper and wrapping paper; such holders being fabricated from ceramic, plastic, metal and wood.

Having described the invention, what is claimed is:

1. In a roll paper dispensing holder, a rod for loosely mounting the roll of paper thereon, brackets for mounting said rod therebetween, and rotation stopping means for optional engagement with the roll of paper adapted to wedge into the edges thereof and into the space between said rod and said roll of paper.

2. A dispensing holder for a roll of flexible material wound on a hollow tube comprising a rod for mounting said tube thereon adapted to permit either rotation of the tube or its transverse sliding movement on the rod, brackets for mounting said rod therebetween, rotational stopping means on one end of said rod for optional engagement with the roll of flexible material adapted to both wedge into the wound edges thereof and between the hollow tube and the rod, and a stop device on said roll rotational stopping means adapted to limit rotary movement of said rod, by engagement with the forward edge of the adjacent bracket.

CLARENCE B. FOWLER.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
551,040	Morgan	Dec. 10, 1895
678,756	Norris	July 16, 1901
2,158,659	Holman	May 16, 1939
2,253,664	Vigo	Aug. 26, 1941
2,299,626	Hunt	Oct. 20, 1942
2,313,776	Segal	Mar. 16, 1943
2,412,396	Hanna	Dec. 10, 1946