March 8, 1960 H. A. WORKMAN 2,927,726

SIGNALLING DEVICE FOR ROADSIDE DELIVERY RECEPTACLES

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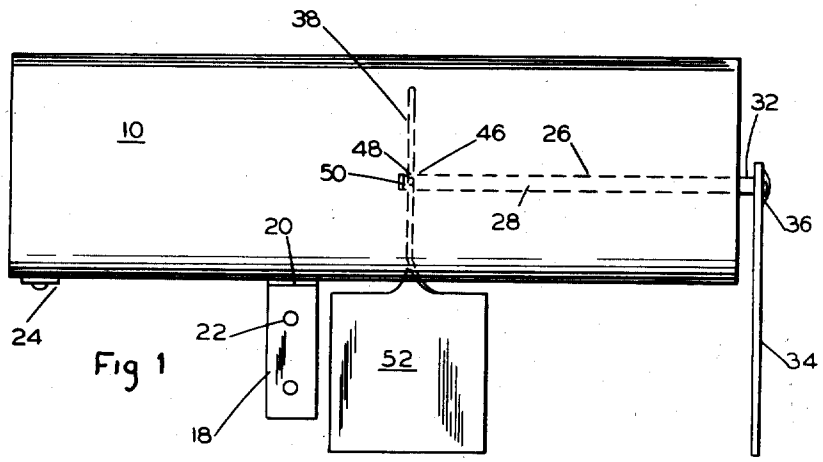


Fig 1

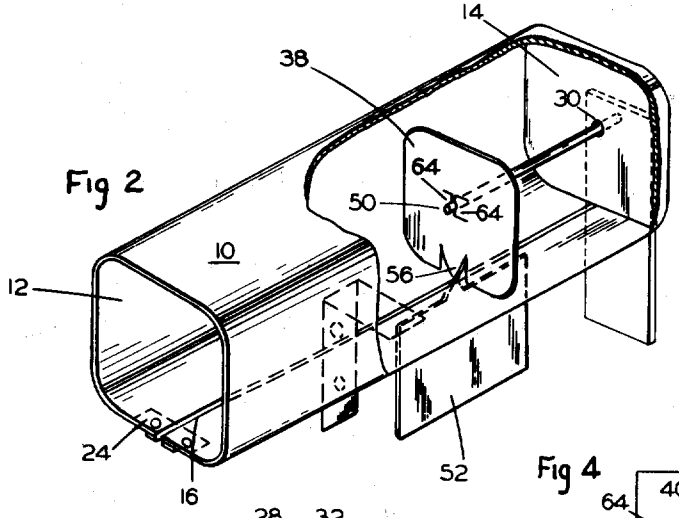


Fig 2

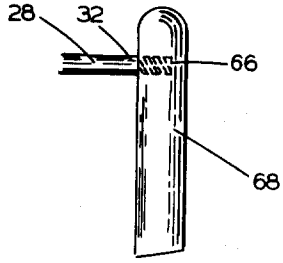


Fig 5

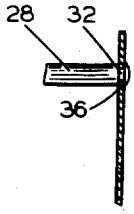


Fig. 3

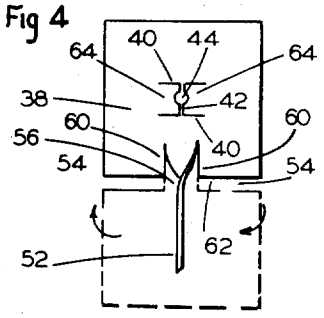


Fig 4

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SIGNALLING DEVICE FOR ROADSIDE DELIVERY RECEPTACLES

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1 Claim. (Cl. 232—34)

My invention is directed to a novel signalling device for roadside delivery receptacles such as mail boxes and the like designed for the reception of mail remote from the residence of the recipient. More specifically, it is directed to a signalling receiver of the type designed for the reception of particular items of delivery such as newspapers and the like, situated remotely from the house of the subscriber, and to the signalling mechanism forming a part thereof.

Newspapers often undertake delivery to their subscribers in rural areas or areas of scattered population by providing the subscriber with a receptacle for the paper which is mounted on a post adjacent the nearest highway or road and into which the newspaper is deposited daily by newspaper carriers delivering from automobiles or delivery trucks. Such receptacles are often some distance from the residence or place of delivery for which the paper is intended.

The receptacles are usually provided at no cost to the subscriber and are mounted near the road by the newspaper delivery men. The receptacles are tailored rather exactly, both as to interior cross section and length, to the size of the newspaper to be deposited therein when the newspaper is folded and rolled in some particular fashion most convenient and manageable for the handling and inserting of the newspapers. The receptacle will, of course, be designed to be as small as possible for purposes of economy consonant with providing for easy and quick insertion of the papers and good protection thereof from damage by rain or snow. In order to protect the papers to the desired extent, the receptacles must enclose fully the folded and rolled paper but obviously in the interests of economy, the tube will be no longer than just enough for such enclosure.

Most subscribers to a morning newspaper like to read the paper with their breakfast or coffee. Since the newspaper receptacles are open toward the road and the houses for which the newspapers are intended lie away from the road, a person cannot see into the container from his home to determine whether the paper has been delivered.

My invention has as a major object the provision of a container for the reception of remotely delivered literature such as newspapers and the like which indicates at a distance whether the literature has in fact been delivered.

Another object of my invention is the provision of a signalling device which may cheaply and readily be incorporated in existing and already placed receptacles of the character above to indicate the delivery of literature into the receptacles at a distance.

Yet another object of my invention is to provide a signalling device of the character set forth above which is simple and inexpensive and yet which operates surely and effectively and whose operation will not be affected by unfavorable weather conditions such as sleet, ice, etc.

Another object of my invention is the provision of a signalling device as described above which may be attached to existing and already placed receptacles and not

impair the protection which the receptacle gives the material.

Still a further object of my invention is the provision of a signalling receptacle or signal for such receptacle which can be read at a substantial distance from the receptacle and through a wide range of angles about the receptacle to indicate the deposit of material therein.

Other objects and advantages of my invention will be apparent from the following description and drawings, of which:

Fig. 1 is a side elevation of a newspaper delivery tube incorporating an embodiment of my invention;

Fig. 2 is a perspective view of the delivery tube of Fig. 1, having a portion of the wall thereof broken away;

Fig. 3 is a section taken substantially along the line 3—3 of Fig. 2, looking in the direction of the arrows;

Fig. 4 is a front elevation of the operating plate of my invention; and

Fig. 5 is a view similar to Fig. 3 showing, however, an alternative form of signalling device.

A representative newspaper delivery tube **10** of the type to which my invention may be applied is shown in Figs. 1 and 2. The tube consists of a sleeve **12** formed of a continuous sheet of metal which is formed into a generally rectangular tube having rounded longitudinal edges. Other commonly seen tubes are circular in section. The tube is closed at one end by a sheet metal base **14** crimped in conventional fashion to the end of the sleeve. The adjoining edges of the curved sleeve may be crimped together to make a closed tubular sleeve or they may be spaced apart slightly as illustrated in Fig. 2 at the bottom of the sleeve to define a longitudinal slot **16** for the drainage of water possibly getting into the tube. An L-shaped bracket **18** has one leg **20** thereof secured transversely to the bottom of the sleeve in approximately the center thereof and spanning slot **16**, and the other leg **22** of the bracket extends downwardly from the sleeve in a plane outside the vertical edge thereof to provide means for attaching the delivery tube to a post. The tube may likewise have a small sheet metal member **24** secured transversely across the underside of the sleeve adjacent the open end thereof to secure together the spaced edges of the slot **16** and impart additional strength to the sleeve. The end member **14** serves to secure the sleeve together at the closed end thereof. In this tube is incorporated a signalling device, indicated generally by **26**, illustrative of my invention.

The signalling device of my invention includes a shaft or rod **28** which may be, as illustrated, about one-half the length of the tube. The base member **14** of the tube has a hole **30** bored therein through which the rod **28** extends. The outer end **32** of the rod **28** is of reduced diameter and a relatively large, elongated, rectangular metal plate **34**, constituting a flag or signal, has a hole **36** therein adjacent one end thereof which fits over the reduced end **32** of rod **28**. The end **32** of the rod is peened over on the signal as at **36** to secure the signal **34** against the end of the rod. The hole **30** through which the rod **28** extends is centered in the end **14** of the tube in the side to side direction and may be slightly below center in the vertical direction.

The plate **34** should desirably be coated both for protection from the weather and to achieve maximum visibility thereof. The signal should extend well below the bottom surface of the delivery tube and should be of sufficient width so that it can be seen from a substantial distance.

I contemplate that the other end of the rod **28** inside the sleeve **12** carry a vertical pusher or operating plate **38**, oriented transversely of the sleeve, riding on the bottom of the sleeve and extending closely to the sides of the sleeve. Desirably the plate has a pair of parallel

slots **40** formed in the center thereof and a third slot **42** extends perpendicularly to the parallel slots and interconnects the centers thereof. A hole **44** is formed in the center of the transverse slot. The slots **40** and **42** and hole **44** define opposite ears **64** having opposite semicircular notches in the facing edges thereof.

The inner end **46** of rod **28** has an annular groove thereabout to define a rod section **48** of reduced diameter and a head **50** at the extremity of the rod is equal to the full diameter thereof. Hole **44** in plate **38** is formed to about the same diameter as the reduced portion or neck **48** of the rod **28**.

In the illustrated embodiment, the plate **38** of my invention likewise carries a second signalling device or flag **52**. To provide the flag I contemplate that the sheet of metal of which the flag and plate are formed consist of a rectangle substantially greater in height than the plate itself, the upper portion of the rectangle constituting the plate **38** as may be best seen in Fig. 4. The dimensions of the plate **38** are determined and the metal sheet is notched in toward the center with notches **54** of appreciable width to define a neck **56** and the flag **52** extending downward from the neck and spaced appreciably from the plate **38** by the width of the notches **56**. The effective length of the neck is increased by slotting of the plate **38** upwardly as at **60** to extend the edges of the neck **56** into the plate **38**. Thereafter, the portion of the sheet which constitutes the flag **52** is twisted about its central vertical axis through 90° so that the flag and plate lie in planes at right angles to each other. The twist is so made as to lie wholly in the neck **56** and in that portion of the neck defined by the vertical slots **60** or that portion thereof upwardly of the bottom edge **62** of the plate. The flag and neck prior to twisting are shown in the dotted lines of Fig. 4.

Among the requirements of a signal such as I contemplate, is that it be capable of easy installation on already installed newspaper delivery tubes. The installation of my signalling device into a delivery tube will be largely the same whether factory performed or done on a tube already placed at a residence for newspaper delivery. The hole **30** of a size to receive comfortably rod **28** will be drilled approximately centrally in the rear end **14** of the tube. Precise centering is not essential since plate **38** occupies sleeve **12** only loosely. Thereafter, the inner end **46** of the rod **28** is inserted into the hole **30** from the outer side of the delivery tube, signal **34** being already permanently attached to end **32** of the rod. In the meantime plate **38** is inserted into the tube in a horizontal plane with flag **52** leading. When flag **52** passes the L-shaped bracket **18**, plate **38** is tilted to drop the flag through the slot portion **16** behind bracket **18** or that portion of the slot between bracket **18** and the closed rear end of the tube. Plate **38** is turned to vertical and the inner end **46** of rod **28** forced against the hole **44**. Forcing the end of the rod against the hole will spring out the ears **64** defined by the slots **40** and **42** and permit the head **50** at the inner end of rod **28** to pass through hole **44**. The ears **64** will spring back into plane about the groove **48** in rod **28** and so secure plate **38** to the inner end of the rod.

The function of my signalling device will be apparent from the foregoing description. When a person goes out to pick up his newspaper from the delivery tube, he will push signal **34** up against the closed rear end **14** of the tube, so moving plate **38** forward in the tube about half way toward the open end thereof. When the next delivery is made, the newspaper will be inserted into the delivery tube and by the insertion of the paper, the plate **38** is pushed backward in the tube and the signal **34** carried out well away from the end of the tube to signal to the subscriber that the newspaper has been delivered.

The flag **52** which hangs down from the underside of

the delivery tube is, as stated, at right angles to the plane of the signal **34**. The flag likewise should be coated for good visibility. When a person's point of observation of the newspaper delivery tube is at right angles to the tube, it will be difficult to see signal **34** since only the edge thereof will be in view. In this position, however, the full face of the flag **52** will be visible and its displacement from the position in which it was originally left can be readily detected at a great distance from the point of observation. By providing the two signalling devices at right angles to each other, a good visible signal of newspaper delivery is provided to the subscriber regardless of where his point of observation may be in relation to the delivery tube. Where the point of observation is at right angles to that point on the roadside where the tube is to be installed so as to provide a dead-on view of the rear of the newspaper tube, the tube may be inclined slightly relative to the road to avoid that angularity. Thus, when the flag **34** is against the end of the tube it will appear centered against the back plate **14**. When, however, the newspaper has been inserted and the flag, therefore, shifted away from the rear of the tube, there will be an apparent shift of the flag relative to the center of the back plate which would indicate positively the presence of the newspaper therein.

It will be appreciated from the foregoing description that my device is exceedingly simple and yet exceedingly effective. Its ease of installation on the rod will be readily appreciated. It will be further noted that the protection which a newspaper tube provides the delivered paper in the event of bad weather is not impaired in any way by holes bored through upper surfaces of the tube. It will also be noted that I employ no hinge joints and no exposed connections or movements of a type whose movement could be impaired by ice or snow. The sliding movement of the rod **28** in hole **30** is free; it enjoys a substantial degree of protection; and the movement of the rod will necessarily be forced as the newspaper is inserted into the tube.

It will be evident that the above is an embodiment of my invention and is not to be regarded as limitative thereon. Thus, the flag **52** may be omitted and the plate **38** be a simple rectangle. In that event, it may be desired to change the nature of the signal **34** so as to provide visible dimension from all points of view. Thus, in Fig. 5 the outer end **32** of rod **28** is shown as being threaded as at **66** and a relatively large diameter dowel **68** secured thereto, the dowel again being of sufficient length to extend well below the bottom of the delivery tube. The dowel likewise should be coated for good visibility. Instead of a dowel, a tube section may be used.

In the illustrated embodiment I have described rod **28** as being about half the length of the tube **10**. The rod, of course, need not be so limited. It must be at least long enough to be moved to a degree noticeable at a ditsance, for instance, one eighth of the length of the tube. It should not be longer than the tube to permit the pusher plate to fall out the front end thereof. The flag **52** and bracket **18**, together, impose a limitation on the length of the rod in the illustrated embodiment.

Likewise I have described the connection of the flag **34** to the rod **28** as a permanent connection to be made at the time of manufacture. It may be desired to make the connection of these two members in the same fashion as the rod **28** is connected to the plate **38** in the interests of more economical use of shipping space, the connection between the rod and rear flag **34** to be made at the time of attachment of the signalling mechanism to the newspaper tube.

Other alternatives as to structure and design will suggest themselves and I, therefore, desire that my invention be regarded as being limited only as set forth in the following claim.

I claim:

A newspaper delivery receptacle comprising a sleeve and a rear wall at one end of said sleeve, said sleeve being proportioned as to length to contain a newspaper, said sleeve having a longitudinal slot therein on the underside thereof adjacent the rear wall and said rear wall having a bore therein, a rod at least one eighth as long and no longer than said receptacle, slidably contained in said bore, a plate secured to that end of said rod in said receptacle transversely of said receptacle and slidable longitudinally within said receptacle, the face of said plate being proportioned to span substantially the interior of said sleeve so as to intercept necessarily the end of a newspaper inserted into said receptacle, said plate including an integral signalling device of substantial area depending therefrom and through said slot to extend downwardly of said receptacle, having a neck connecting said device to said plate upwardly of the bottom edge of said plate, said neck having a twist therein maintaining said signalling device in a vertical plane at right angles to the plane of said plate, and a second signalling device of substantial area secured to the other end of said rod exteriorly of said receptacle, said second device being oriented in a vertical plane generally perpendicular to the vertical plane of said first signalling device.

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