May 22, 1956 I. S. GOTTSCHO 2,746,380

MARKING DEVICES

Filed Oct. 16, 1952 3 Sheets-Sheet 1

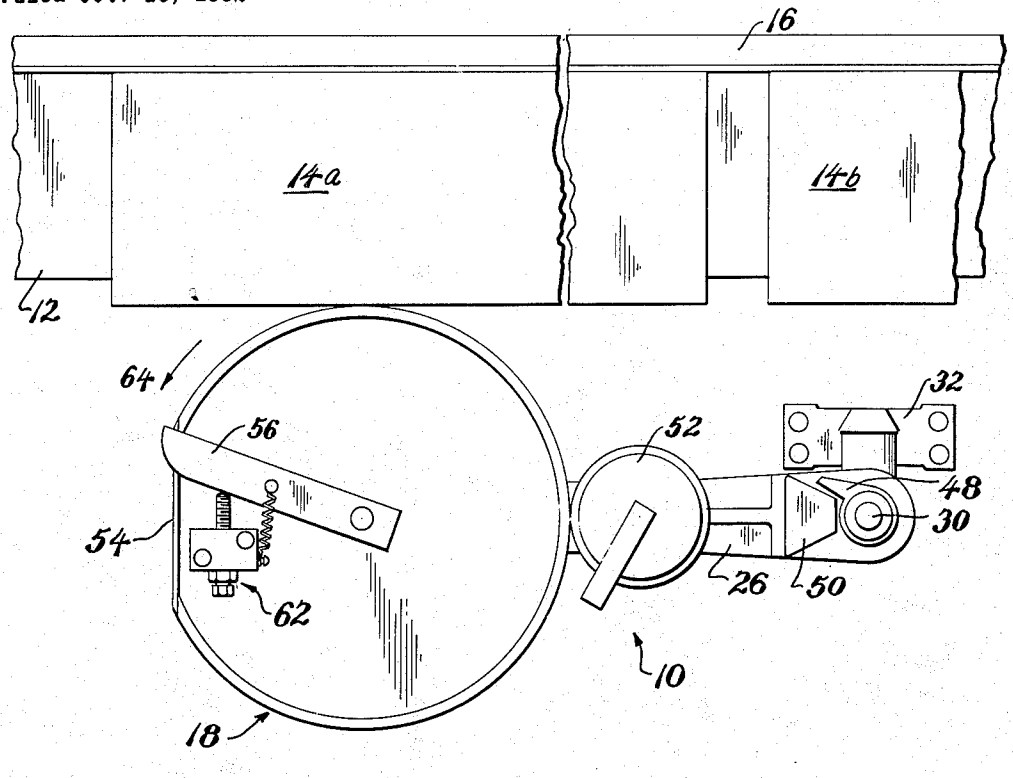


Fig. 1

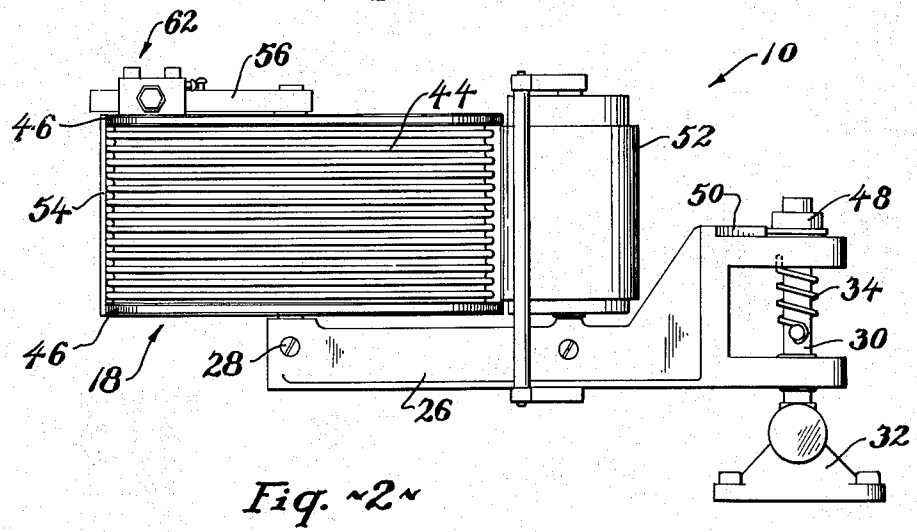


Fig. 2

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MARKING DEVICES

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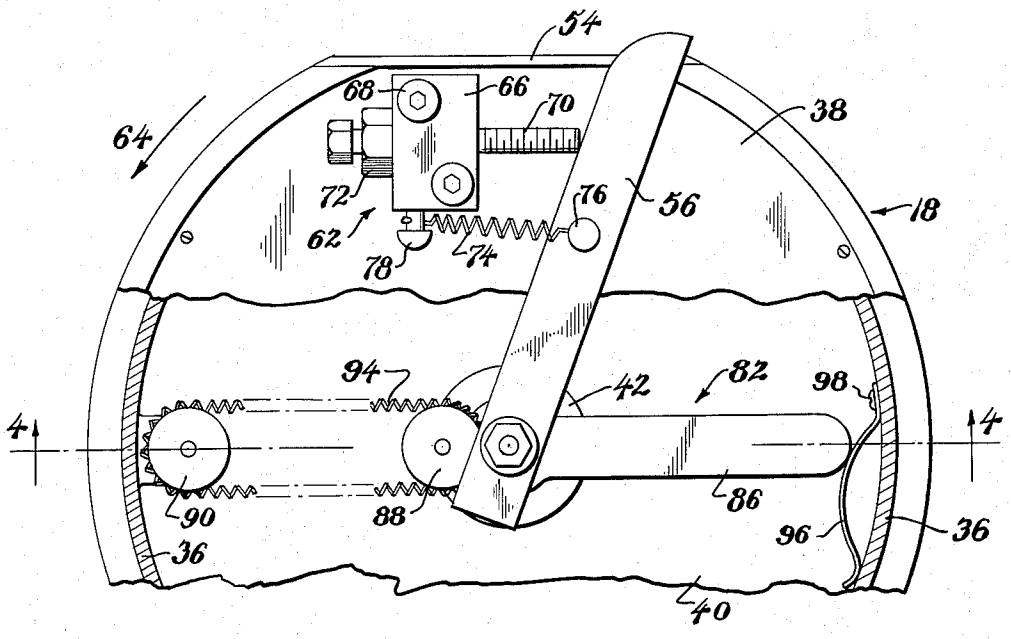


Fig. ~3~

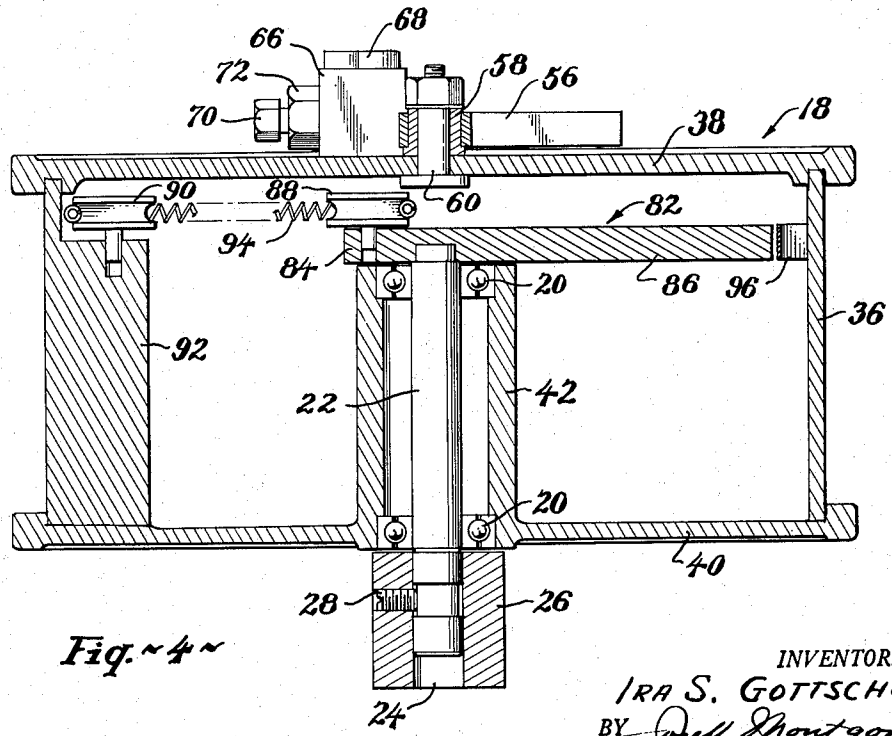


Fig. ~4~

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MARKING DEVICES

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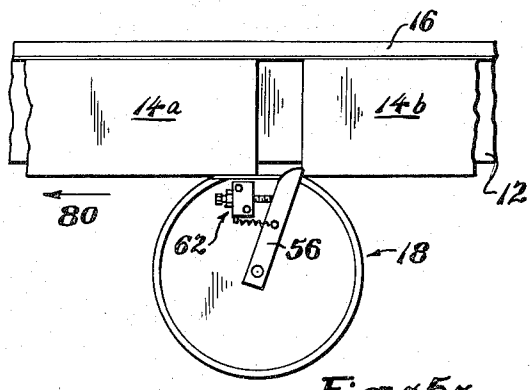


Fig. 5

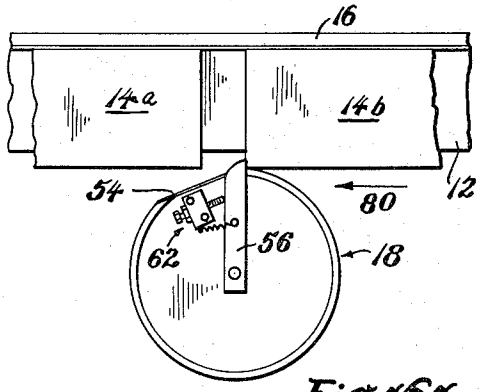


Fig. 6

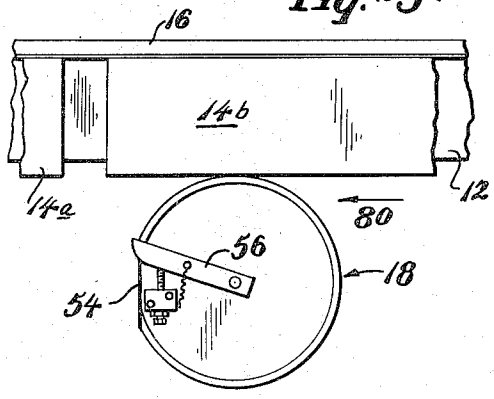


Fig. 7

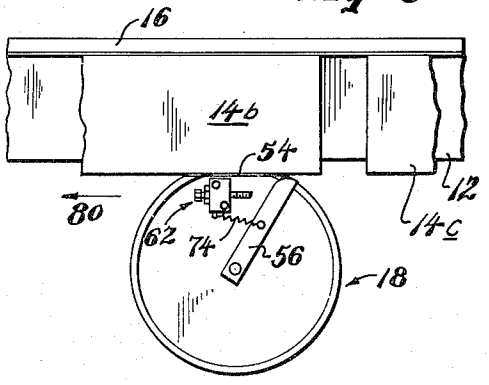


Fig. 8

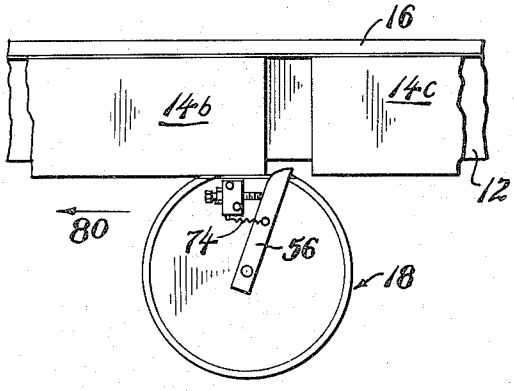


Fig. 9

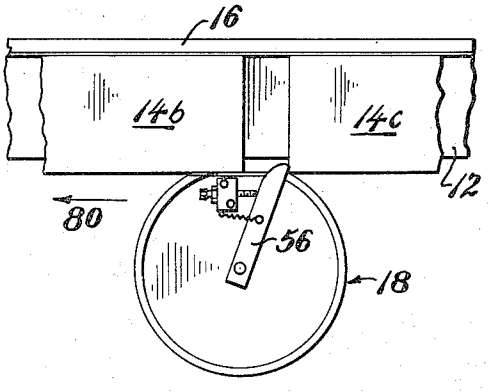


Fig. 10

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United States Patent Office 2,746,380 Patented May 22, 1956

2,746,380

MARKING DEVICES

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Application October 16, 1952, Serial No. 315,038

8 Claims. (Cl. 101—35)

This invention relates to improvements in marking devices and is particularly directed to devices for applying indicia to continuously or intermittently moving articles wherein the marking device is actuated by the movement of the articles.

The present invention is particularly well adapted for marking packages and the like carried by a continuously moving conveyor and will be described in connection with such use. However, it is to be understood that the devices embodying this invention may be employed in the marking of any moving object.

In marking devices of the character indicated, as heretofore made, a rotary printing or imprinting drum or cylinder is employed having type or indicia on the periphery thereof for applying an inked or indented impression to the successive articles as the latter are moved past the marking station. The drum is rotated by frictional contact of each moving article with the drum, and, as the article moves out of contact with the drum, the drum is returned to its starting or normal position by spring means. In certain of these devices, a rigid stop is provided for limiting the return movement of the drum so that when the drum, or a projection thereon, engages the rigid stop a shock is imparted to the device and this causes vibrations to be produced which result in blurring of the impression at the start of the next operating cycle, as well as causing the device to wear more rapidly.

In United States Letters Patent to Ira S. Gottscho and Kenneth H. Kuett, No. 2,592,558, issued April 15, 1952, a return mechanism has been disclosed which includes a resilient brake for limiting the return movement of the drum after a marking cycle and for accurately positioning the drum for the commencement of the next marking cycle. The return mechanism therein disclosed has the advantage of being capable of repositioning the marking drum whether the preceding marking cycle has required a complete revolution, several revolutions or only a fraction of a revolution of the marking drum. However, it has been found that the return mechanism disclosed in the above mentioned patent, while adequate for many situations, requires a period of time for return of the marking drum to its initial position which is too long when the articles on the moving conveyor are spaced apart by only small distances or when the conveyor is advanced at a rapid pace. That is, the time required for return of the marking drum to its initial position may exceed the period of time available between the instant when the trailing end of an article leaves the marking station, and thereby releases the marking drum for its return movement, and the instant when the leading end of the article next in line arrives at the marking station. Thus, the marking drum may not have completed the return movement to its original position at the time when an article arrives at the marking station for commencement of a marking cycle so that the marking applied during the subsequent cycle will not be properly registered relative to the article. Further, if the article arriving at the marking station makes contact with the drum before

the latter has completed its return movement, the moving article exerts a frictional braking action on the drum and there is relative movement between the drum and article during the initial contact therebetween which causes blurring of the impression applied to the article. Finally, with the return or repositioning mechanism heretofore provided, the marking drum continues to rotate so long as it is in contact with an article. Therefore, if the article to be marked has a length, in the direction of movement, which is greater than the circumference of the marking drum, the drum is rotated for more than one revolution and the marking or indicia is repeated along the length of the article. This is particularly objectionable if the length of the article is not a whole multiple of the circumference of the marking drum for, in that event, a fragment of the marking may be applied to the article.

Accordingly, it is an object of the present invention to provide a marking device of the described character having an arrangement for returning the marking drum to its original position without delay so that the marking drum is always prepared for the commencement of a marking cycle upon the arrival of an article at the marking station even though the spacing between the successive articles is relatively small.

Another object is to provide a marking device of the described character having means on the marking drum projecting into the path of an article arriving at the marking station for engagement by the article to produce the initial rotation of the marking drum while avoiding any relative movement between the contacting surfaces of the article and drum.

Still another object is to provide a marking device of the described character with an arrangement for returning the marking drum to its original position after a single rotation thereof and for holding the drum in its returned position, even though contact with the article continues, so that only a single marking is applied to each of the articles.

A further object of the present invention is to provide a marking device having a return mechanism with the above advantageous characteristics which is simple and inexpensive to manufacture and reliable in its operation.

In accordance with the present invention, a marking device fulfilling the above objects may include a resilient return mechanism of the kind disclosed in United States Letters Patent No. 2,592,558, issued April 15, 1952, to Ira S. Gottscho and Kenneth H. Kuett, for returning the marking drum to its original position when the articles being marked have lengths, in the direction of movement, which are substantially smaller than the circumference of the marking drum. Further, the marking drum is formed with a smooth flattened peripheral portion arranged to confront the article at the marking station when the drum is in its original or starting position. An actuating arm is rockably mounted on the drum to project at one end beyond the flattened peripheral portion of the marking drum, and an adjustable abutment is provided on the drum to limit the rocking movement of the arm relative to the drum in the direction of rotation of the latter for applying the marking. Resilient means are connected to the actuating arm for continuously urging the arm against the adjustable abutment and the latter is positioned so that the projecting end of the arm is disposed adjacent the trailing end of the flattened peripheral portion of the drum when the arm contacts the abutment. Thus, an article arriving at the marking station engages the projecting end of the actuating arm to rock the latter, and the arm effects initial rotation of the marking drum through its contact with the abutment on the drum. As the actuating arm moves out of the path of the article moving past the marking

station, continued rotation of the marking drum or cylinder results from the frictional contact of the periphery of the drum with the moving article. However, when the marking drum completes a full revolution, the flattened peripheral portion thereof contacts the surface of the article being marked and the latter slides over the flattened peripheral portion which prevents further rotation of the marking drum. When the article is sliding past the flattened peripheral portion of the marking drum, the article depresses the actuating arm into a position within the peripheral confines of the drum and, as the article moves away from the marking station, the actuating arm is again spring urged to its projecting position to be engaged by the leading end of the article next in line for the commencement of a new marking cycle.

Other and further objects, features and advantages of this invention will be manifest from the following description of an illustrative embodiment thereof and the accompanying drawings, wherein:

Fig. 1 is a top plan view of a marking device embodying the present invention;

Fig. 2 is a side elevational view of the marking device of Fig. 1;

Fig. 3 is a fragmentary plan view, on an enlarged scale, of the marking drum and associated mechanism included in the device of Fig. 1, with a part of a side of the drum being broken away to expose the internal mechanism;

Fig. 4 is a sectional view taken along line 4—4 of Fig. 3; and

Figs. 5 to 10, inclusive, are diagrammatic views illustrating the positions of the marking drum and its associated mechanism relative to the articles being marked during various phases in the operating cycle of the device embodying the present invention.

Referring to the drawings in detail, and initially to Figs. 1 to 4, inclusive, there is shown a marking device, generally indicated by the reference numeral **10**, which is constructed in accordance with an embodiment of the present invention. The marking device **10** is associated with a conventional conveyor **12** on which articles **14***a* and **14***b* to be marked are conveyed past the marking device disposed at one side of the conveyor. While the marking device **10** is illustrated as being arranged to mark a side surface of each of the successive articles, it is to be understood that the present invention may be applied as well to devices for marking the top or bottom surfaces of the articles. A vertically extending back board or guide **16** may be provided adjacent the conveyor to prevent lateral movement of the articles on the conveyor in the direction away from the marking device **10** during the marking operation. It is to be understood that any other conventional means may be employed to prevent lateral movement of the articles, such as upper and lower belts or the like.

The device **10** includes a printing or marking drum or cylinder **18** which is rotatably mounted by means of ball bearing assemblies **20** (Fig. 4) on a vertical stub shaft **22**. The shaft **22** is received in a bore **24** formed in one end of a support arm **26** and is secured relative to the arm by a set-screw **28**. The opposite end of the support arm **26** is swingably mounted on a vertical shaft **30** which is supported by a suitable structural element **32** which may be a part of or secured to the conveyor mechanism, and a torsion spring **34** is interposed between the support arm **26** and the shaft **30** for urging the arm **26** to swing in the direction moving the drum **18** toward the conveyor **12** and into frictional engagement with the articles being moved by the conveyor.

The drum **18** is hollow and in the illustrated construction includes a cylindrical side wall **36** and substantially circular top and bottom end plates **38** and **40** which may be removably secured to the edges of the side wall **36**. The bottom wall **40** is formed with an upwardly extending, central hub **42** which receives the outer races of the bearing assemblies **20**. The cylindrical wall **36**, on its outer surface, carries suitable means, for example, a resilient grooved assembly **44** (Fig. 2), for securing type or indicia thereto. Preferably, the outer periphery of each of the top and bottom end plates is of a diameter only slightly smaller than that of the raised portions of the type or indicia, so that the peripheries are frictionally engaged by the articles to effect rotation of the drum, and frictional engagement by the type or indicia to rotate the drum is not relied upon, thus eliminating blurring of the impression applied to the articles resulting from slippage between the type or indicia and the articles. To further reduce the possibility of slippage between the type or indicia and the articles, the peripheries of the top and bottom end plates **38** and **40** are preferably milled or knurled, as indicated at **46** in Fig. 2, thereby increasing the frictional contact with the articles.

In order to limit the swinging movement of the support arm **26** in the direction toward the conveyer so that the drum **18** will be free to be engaged by the articles without being capable of swinging so far across the conveyor between successive articles as to obstruct the passage of the articles on the conveyor, a finger **48** is secured on the top of shaft **30** and extends radially therefrom to be engaged by an abutment **50** formed on the support arm **26** (Figs. 1 and 2). If desired, the finger **48** may be adjustably secured to the shaft **30**, for example, by a set screw (not shown) so that the limitation on the swinging movement of the arm **26** may be varied to accommodate articles of different widths on the conveyor **12**.

When an inked impression is to be applied to the successive articles on the conveyor, an inking roller **52** having an internal ink supply source (not shown) is supported on the arm **26** for rotation about an axis parallel to that of the drum **18** and in rolling contact with the type or indicia on the drum whereby rotation of the marking drum effects inking of the type thereon.

In accordance with the present invention, a peripheral portion of the marking drum **18** is flattened and covered with a preferably smooth straight plate **54** spanning between the top and bottom end plates **38** and **40**. Thus, when the smooth, straight plate **54** is engaged by an article on the conveyor, the article slips along the plate **54** and rotation of the marking drum is arrested. The flattened portion of the periphery of drum **18** and the plate **54** thereof are arranged so that they are facing toward the conveyor **12** when the drum is in its initial position for commencement of a marking cycle.

In order to provide for the initial rotation of the drum from its position at the commencement of a marking cycle, an actuating arm **56** is provided above the top end plate **38**. The actuating arm **56** is swingably mounted adjacent one end on a bushing **58** (Fig. 4) which is carried by a bolt **60** extending centrally through the top end plate **38**. The free end of the actuating arm **56** travels along a circular arc which has a radius substantially equal to the radii of the curved parts of the peripheries of top and bottom end plates **38** and **40**. Thus, when the actuating arm **54** is angularly positioned to extend toward the flattened peripheral portion of the drum, the free end of the arm **56** projects beyond the plate **54**, while the arm **56** is within the peripheral confines of the drum when it is angularly positioned away from said flattened peripheral portion of the drum.

Further, the device embodying the present invention includes an abutment assembly, generally indicated by the reference numeral **62**, positioned at the side of the actuating arm **56** facing in the direction of rotation of the drum **18**, as indicated by the arrows **64** on Figs. 1 and 3, to limit the swinging of arm **56** relative to drum **18** in the direction of rotation of the latter during the marking operation. The abutment assembly **62** includes a block **66**, secured to the top end plate **38** by suitable fastenings **68**, and having a bolt **70** extending threadably therethrough to bear against the arm **56**. A nut **72** is preferably provided on the bolt **70** to engage against

the block 66 and prevent inadvertent movement of the bolt relative to its supporting block. The actuating arm 56 is resiliently urged against the bolt 70, for example, by a tension spring 74 extending between suitable attaching means 76 and 78 on the arm 56 and on the block 66, respectively. As seen in Fig. 3, the bolt 70 is normally adjusted so that the arm 56, when engaged thereagainst, will extend toward the trailing end of the plate 54 to radially project slightly beyond the latter.

With reference to Figs. 5 to 10, inclusive, of the drawings, the operation of the device described above will now be explained. Assuming that the articles on the conveyor 12 are being moved past the marking device in the direction of the arrows 80, it will be seen that the drum is rotated in a counter-clockwise direction, as viewed on the drawing. As the article 14*a* (Fig. 5) moves away from the marking station, that article slides over the flattened peripherial portion of the drum 18, and the actuating arm 56 projects radially beyond that flattened portion into the path of the advancing article 14*b* next in line which is approaching the marking station. Thus, the front end of the article 14*b* engages the actuating arm 56 to rock the latter, as shown in Fig. 6, and to cause the initial rotation of the drum 18 by reason of the contact between the arm 56 and the abutment assembly 62 on the drum. As the flattened peripheral portion of the drum 18 moves away from the side of the conveyor to disengage the arm 56 from the leading end of the article 14*b* being marked, the side surface of that article engages the knurled rims of the drum, as in Fig. 7, with the drum 18 being urged into frictional contact with the article by the spring 34 (Fig. 2). During the phase of operation illustrated by Fig. 7, the type or indicia carried by the drum apply the marking to the side surface of the article.

When the length of the article being marked is greater than the circumference of the drum 18, the trailing end portion of the article 14*b* will still be disposed adjacent the marking station as the drum completes a full revolution to again position the flattened peripheral portion of the drum 18 parallel to the path of the articles on the conveyor, as in Fig. 8. Thus, the trailing end portion of the article will slide along the smooth plate 54 so that no further rotation of the drum is effected, and the actuating arm 56 will be rocked away from the abutment assembly 62 by the article 14*b* to a position in which the free end of arm 56 does not project beyond the periphery of the drum (Fig. 8). As the trailing end of the article 14*b* moves along the smooth plate 54, the actuating arm 56 is released by the article (Fig. 9) and is again urged against the abutment assembly 62 with its free end projecting radially beyond the plate 54 and into the path of the leading end of the article 14*c* next in line on the conveyor. Thus, when the article 14*c* reaches the marking station, as in Fig. 10, the drum 18 is again properly positioned for the commencement of a new marking cycle.

It is apparent that the arrangement herein described for attaining the proper positioning of the marking drum at the beginning of a marking cycle does not require any great space between the successive articles on the conveyor so long as such space is sufficient to permit the actuating arm 56 to fit between the successive articles in its projecting position. Thus, the present invention permits the accurate marking of articles which are closely disposed on a conveyor to provide efficient utilization of the conveyor. Further, in the described construction, the marking drum is at rest when an article on the conveyor reaches the marking station and the initial movement of the drum by the article is achieved through contact against the projecting end of the arm 56 rather than by frictional contact with bearing rims on the drum so that slippage of the article relative to the drum during acceleration of the latter is avoided and blurring or improper registration of the applied marking is prevented.

Finally, with the construction embodying the present invention, the marking drum is rotated through only one complete revolution to apply a single marking to each article, even through the article may have a length in the direction of its movement which greatly exceeds the circumference of the drum, and, after the drum has completed one revolution, the article merely slides along the smooth plate 54 on the drum.

While the described structure operates satisfactorily to return the marking drum to its original position at the end of each marking cycle and to register the drum with each article at the beginning of the marking cycle so long as each article has a length which is not much smaller than the circumference of the marking drum and the spacing between successive articles does not exceed the length of the flat plate 54 on the drum, difficulties do arise when the described structure is employed for the marking of relatively short articles or of articles which are widely spaced apart on the conveyor. Thus, if relatively short articles are being marked, the articles will move out of engagement with the marking drum before a complete revolution of the latter has been effected and the drum will not be returned to its original position. If the articles are widely spaced apart on the conveyor, the article which has been marked will move off the flattened peripheral portion of the drum before the article next in line has made contact with the projecting end of actuating arm 56, and the drum will be free to rotate from its returned position thereby disturbing the registration of the drum with the article approaching the marking station.

Accordingly, it is preferable to use the structure described above in connection with apparatus as disclosed in United States Letters Patent No. 2,592,558, to Ira S. Gottscho and Kenneth H. Kuett, issued April 15, 1952, so that the patented apparatus will effect the return of the drum to its original position and will resiliently hold the drum in that position when the articles are too short or too widely spaced apart for the efficient operation of the device herein described.

Therefore, as shown in Figs. 3 and 4, the marking device 10 is preferably provided with a stationary bar 82 which is mounted on the upper end of fixed shaft 22 and is keyed thereto. The bar 82 has a short arm 84 and a long arm 86 extending in opposite radial directions from the shaft 22. A pulley 88 is rotatably mounted on the short arm 84 and a similar pulley 90 is rotatably mounted on a lug or boss 92 at the interior of the side wall 36. A resilient loop 94, which may be in the form of a continuous coil tension spring, engages around the pulleys 88 and 90 to continuously urge the drum to a position in which a single straight line extends through the axis of rotation of the drum 18 and the axes of the pulleys 88 and 90.

In adjusting the marking device for operation, the set screw 28 is loosened to permit rotation of shaft 22 and bar 82 until a straight line extends through the axis of rotation of the drum 18 and the axes of the pulleys 88 and 90 when the drum is disposed with its flattened peripheral portion parallel to the direction of movement of the articles on the conveyor. The set screw 28 is then tightened, so that the flattened peripheral portion of the drum will effect return of the drum to the same position, in the manner herein described, as the position to which the resilient loop 94 returns the drum, in the manner set forth in the above mentioned patent. Thus, even though the articles being marked are relatively short, the drum 18 is returned to its original position at the end of each marking operation.

In order to arrest movement of the drum upon its return to the initial position, resilient brake or stop means are provided, which by way of example, may comprise an arcuate spring member 96 having one end secured on the inside of the side wall 36 by a screw 98, and having its other end bent inwardly of the wall (Fig. 3). The arcuate portion of the spring member 96 is in the path

of the free end of the long arm 86 of bar 82 and is engaged by that arm when the drum is returned to its initial position. Thus, the resilient brake described above will prevent oscillation of the drum when the latter is returned to its original position by the action of the resilient loop 94, and will also prevent drift from that initial position when the spacing between successive articles on the conveyor exceeds the length of the flattened peripheral portion of the drum.

If relatively short articles are to be marked, so that the articles move out of engagement with the marking drum before a complete revolution of the latter has been effected, the use of the apparatus disclosed in United States Letters Patent No. 2,592,558, to Ira S. Gottscho and Kenneth H. Kuett, issued April 15, 1952, may be avoided by providing more than one flattened peripheral portion on the marking drum. The number of flattened peripheral portions on the marking drum corresponds to the relationship between the circumference of the drum and the length of the surface of the article being marked. Thus, if the length of the article being marked is slightly less than one-half the circumference of the marking drum, the marking drum is provided with two diametrically opposed flattened peripheral portions so that a flattened peripheral portion will engage an article being marked as such article reaches and leaves the marking station. It is to be understood that the marking drum, when provided with more than one flattened peripheral portion for the purposes described above, has an actuating arm and abutment assembly associated with each of the flattened peripheral portions and each constructed in the same manner as the parts 56 and 62, respectively, described above. Thus, as each of the articles arrives at the marking station it will engage the actuating arm associated with the flattened peripheral portion which is then disposed parallel to the path of travel of the articles and thereby cause initial rotation of the marking drum. Further, as the marked article moves away from the marking station, the trailing end portion of the article will slide over the next flattened peripheral portion of the marking drum to position the latter for registration with the following article. Thus, relatively short articles can be marked in succession by a marking drum of substantial diameter, and the marking drum will be accurately repositioned at the commencement of each marking operation. A marking drum constructed with a plurality of flattened peripheral portions will, of course, be provided with marking elements disposed between successive flattened peripheral portions so that a marking drum having two flattened peripheral portions will carry two sets of marking elements.

In view of the foregoing description, it will be seen that the present invention provides an improved marking device of the character indicated which operates efficiently and reliably to mark articles of different sizes and of different spacing on the conveyor, and which is simple and economical in construction. The device can withstand long and continued usage without requiring maintenance or repair.

While a preferred embodiment of the invention has been illustrated and described, it is to be understood that the invention is not limited to the precise structure and arrangement of parts as illustrated and described, as obviously various changes and modifications may be made therein without departing from the spirit and scope of the invention.

What is claimed is:

1. In a marking device of the class described for applying markings to successive articles conveyed past a marking station; the combination of a substantially cylindrical marking drum for carrying marking means on the periphery thereof, said drum having a flat peripheral portion which acts to arrest rotation of the drum when slidably engaged by an article, means rotatably supporting said drum at the marking station for contact at its periphery with the successive articles, said supporting means being movable toward and away from the path of the articles, yieldable means urging said supporting means in the direction toward the path of the article so that peripheral contact of said drum with the successive articles is maintained as the flat peripheral portion and the remaining arcuate peripheral portion of said drum are disposed for contact with the article, an arm rockably mounted on said drum and extending radially from the axis of rotation of said drum a distance substantially equal to the radius of the curved peripheral portion of said drum so that said arm projects radially beyond said flat peripheral portion when it is disposed within the angular limits of said flat peripheral portion, stop means on said drum for limiting the rocking of said arm relative to said drum in the direction of rotation of the latter during marking of the articles, said stop means being disposed so that said arm, when engaged thereby, is positioned within said angular limits of the flat peripheral portion and adjacent the trailing end of the latter, and yieldable means acting on said arm to continuously urge the latter against said stop means so that, as an article approaches the drum along a path parallel to the flattened peripheral portion of the latter, the article engages said arm disposed against said stop means and moves the arm before the article to effect initial rotation of said drum.

2. In a marking device of the class described; the combination according to claim 1, wherein said flat peripheral portion of the drum is smooth and the remainder of the periphery of said drum is provided with roughened surfaces so that an article may slip easily relative to the drum when contacted by said flat peripheral portion and so that sufficient frictional contact is provided when an article engages said remainder of the periphery to effect rotation of said drum without slippage of the article relative to said drum.

3. In a marking device of the class described; the combination according to claim 1, wherein said stop means includes a block fixed on said drum, and a tangential bolt threadedly extending through said block for engagement with said arm so that the limitation on the rocking of said arm may be varied.

4. In a marking device of the class described; the combination according to claim 3, wherein said yieldable means acting on the arm includes a tension spring member connected at its opposite ends to said block and to said arm.

5. In a marking device of the class described for marking successive articles conveyed past a marking station; the combination of a marking drum for carrying marking elements on the periphery thereof, said drum having a flat peripheral portion to arrest rotation of the drum when said flat peripheral portion is engaged by an article, a support arm, means carrying said support arm for swinging about one end thereof toward and away from the path of the successive articles, means rotatably mounting said drum on the other end of said support arm, yieldable means acting on said support arm to continuously urge said other end thereof in the direction toward the path of the articles so that the axis of rotation of the drum is displaced laterally of the path of the articles for maintaining contact of the drum with the articles as the flat and arcuate peripheral portions of the drum move into position for contact with the articles, article engageable means carried by said drum and yieldably projecting in the radial direction beyond said flat peripheral portion adjacent the trailing end of the latter to be engaged by the leading ends of the successive articles, and stop means engaged by said article engageable means in the projecting position of the latter to limit the movement of the article engageable means relative to said drum in the direction of rotation of the latter so that the engagement of an article with said article engageable means is effective to produce initial rotation of said drum.

6. In a marking device of the class described; the combination according to claim 5, wherein said article en-

gageable means includes a radial arm, means mounting the inner end of said radial arm on said drum for rocking relative to the latter about an axis concentric with the axis of rotation of said drum, said arm having a radial dimension substantially equal to the radius of the curved peripheral portion of said drum, spring means causing said radial arm to swing relative to said drum in the direction of the normal rotation of the latter, and said stop means is located on said drum and limits the swinging of the arm in said direction to a position in which the outer end of said arm is adjacent and projects radially beyond said trailing end of the flat peripheral portion.

7. In a marking device of the class described for marking successive articles; the combination of a marking station, a marking drum carrying marking elements on the periphery thereof, means rotatably supporting said drum at the marking station for peripheral contact with the successive articles so that the latter act to rotate the drum while the marking elements on the drum apply markings to the articles, means on a peripheral portion of said drum defining a chordal plane for contact with the articles to arrest rotation of said drum during such contact, means continuously urging said drum in the direction toward the articles so that the drum is maintained in peripheral contact with the articles throughout its rotation, retractable means yieldably projecting beyond the periphery of the drum at said chordal plane thereof for contact by the successive articles to effect initial rotation of the drum, means continuously urging said drum to a predetermined rotational position in which said retractable means is disposed for contact with the articles, and stop means limiting the movement of said retractable means relative to said drum in the direction of normal rotation of the latter so that the engagement of said retractable means by an article is effective to cause the initial rotation of said drum.

8. In a marking device of the class described for applying markings to successive articles conveyed past a marking station; the combination of a marking drum having a flattened peripheral portion and adapted to carry marking means on the remaining arcuate peripheral portion thereof, means rotatably supporting said drum at the marking station for movement toward and away from the path of the successive articles, means yieldably urging said drum in the direction toward the path of the articles so that said drum maintains peripheral contact with the successive articles as the flattened and arcuate peripheral portions of the drum move into position for contact with an article passing the marking station whereby rotation of said drum is arrested by sliding contact of said flattened peripheral portion with an article, retractable means on said drum movable between a position projecting radially beyond said flattened peripheral portion for engagement by each of the successive articles as the latter approaches said drum and a retracted position included within the radial confines of said drum, yieldable means continuously urging said retractable means to its projecting position, and stop means operative when said retractable means is in its projecting position to limit the movement of the retractable means relative to said drum in the direction of rotation of the latter so that the engagement of said retractable means by an article approaching the drum effects initial rotation of the latter.

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