

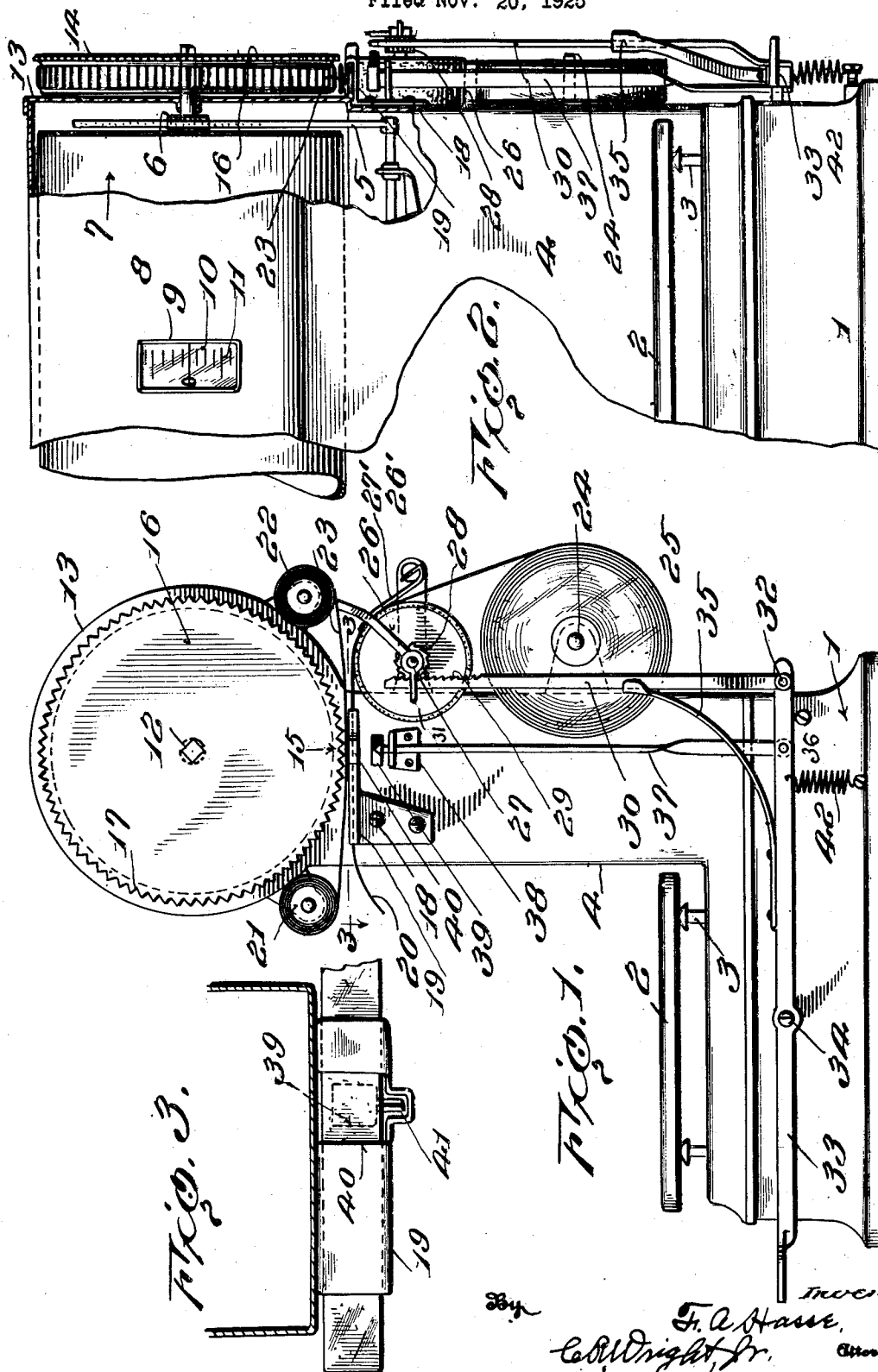
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PRINTING ATTACHMENT FOR SCALES

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PRINTING ATTACHMENT FOR SCALES.

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My invention relates to improvements in printing attachments for scales.

The object of my invention is to provide a printing attachment for scales in which the weight of the article being weighed is printed on a gummed strip of paper and operated through a key mechanism, whereby the strip of gummed paper is fed forward so that it can be torn off and placed upon the wrapper of the article being weighed so that the purchaser can see the exact weight of the article.

Another object of my invention is to provide a printing attachment of this character which can be readily applied to the type of scales in which a rotary drum is used, carrying the weight scale on its outer periphery and the same exposed through an opening in the casing enclosing the drum.

A further object of my invention is to provide means for positively locking the printing drum against movement during the printing operation so that the removal of the article from the scale or the placing of another thereon will in no way change the printing drum so that the exact weight of the article will be printed on the gummed strip.

A still further object of my invention is to provide a simple, cheap and effective attachment of this character which is readily applied to any of the well known scales and at the same time providing an attachment having very accurate printing of the exact weight of the article on the scales.

In the accompanying drawings:—

Figure 1 is a side elevation of a scale showing my attachment applied thereto.

Figure 2 is a front view of Figure 1.

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

Referring now to the drawings, 1 represents the base of a standard scale, which has the weighing platform 2 mounted on the pin 3, which operates a mechanism within the base 1, which extends up through the housing 4, and this mechanism operates the bar 5, which carries a rack engaging the pinion 6, carried by the scale drum 7. This scale drum is enclosed within the housing 8 and said housing has an opening 9 therein, which has a cross wire 10, by means of which the scale 11, on the outer periphery of the drum 7, may be readily read. All of the above described structure is old and the same

is simply shown and described to show the application of my invention. The shaft 12 of the scale drum 7 extends out through the end 13 of the housing 8, and has mounted thereon my improved printing drum 14. This drum 14 has on its outer periphery type marks on the drum 7, so that when five pounds register with the wire 10, the type indicating five pounds will be at the point 15 on the drum 14.

The outer face of the drum 14 has a disc 16 secured thereto, and having teeth 17 on its outer periphery. Arranged below the disc 14 and carried by the housing 4, by means of the screws 18, is a guide way 19, through which the gummed strip 20 passes, and the outer edge of which serves as means for severing the printed portion of the strip from the roller. Carried by the housing 8 are the two drums 21 and 22, around which is wound the inked ribbon 23 which rests upon the upper face of the guide way 19. A shaft 24 is mounted on a bracket 25, carried by the housing 4, and upon which is wound the gummed strip 20, which passes upwardly over the feed roller 26, mounted on the shaft 27. Carried by the bracket 26' is a leaf spring 27' which holds the gummed strip down upon the roller 26 and whereby the strip is fed forward upon the rotation of the roller. The shaft 27 is provided with ratchet wheel 28, which is engaged by ratchet teeth 29 carried by the bar 30. A guide 31 is provided through which the bar 30 passes and whereby it can freely reciprocate and have a lateral movement so that the teeth of the bar can disengage the ratchet wheel 28. The lower end of the bar 30 is pivotally connected at 32 to the operating lever 33 which is immediately pivoted at 34 to the base 1 of the scale. The outer end of the lever 33 extends beyond the base of the scale so that it may be depressed for operating the printing mechanism as will be readily described.

The lever 33 is provided with a spring 35 which engages the bar 30 so that the ratchet teeth carried thereby will normally hold in engagement the ratchet wheel 28, carried by the feed drum. Pivotaly connected at 36, to the lever 33, is the printing bar 37 which extends up through a guide 38, carried by the side of the housing 4 of the scale. The upper end of the printing bar 37 is provided with a flat horizontal printing face 39 which

travels upwardly through an opening 40 in the guide 19, and carrying with it the gummed strip 20 and the inked ribbon 23, so that the strip 20 will receive the impression from the type on the drum 14, at the point 15, and thus print the weight of the article on the platform 2 of the scale on the strip of gummed paper. The printing bar 37 at one side of the printed face 39 is provided with a detent 41 adapted to engage the teeth 17, and hold the type drum so that it can not be moved during the printing operation. This detent 41 engages the teeth 17 prior to the actual engagement of the printing face 39 with the type of printing drum.

In operation, the article to be weighed is placed upon the scale platform 2, and through the mechanism 2 and 5 the drum 7 is oscillated to indicate the proper weight and simultaneously therewith the printing drum 14 is moved to bring the type corresponding with the weight indicated on the drum to the point 15. The lever 33 is then depressed, rocking it upon the pivot 34, moving the printing bar 37 upwardly and causing the printing face 39, carried thereby, to move the gummed strip upwardly against the inked ribbon 23, and the continued movement of the printing bar causes the detent 41 to engage the teeth 17 of the printing drum and locking the same against movement. This causes an impression of the type at the point 15 to be made on the gummed strip. The downward movement of the outer end of the lever 33 causes the bar 30 to move upwardly, and the ratchet teeth will slip over the teeth of the ratchet wheel 28, and the gummed strip will remain in a stationary position. When pressure is relieved on the outer end of the lever 33 the spring 42 will draw the inner end downwardly, and the spring 35 holding the bar 30 against the ratchet wheel 38 the feed roller 26 will be rotated, causing the gummed strip to be fed forward through the guide way 19. The gummed strip can be pulled by hand so that the printing portion will be beyond the guide way and can then be torn off and pasted on the wrapper of the article previously weighed.

Having thus fully described my invention what I claim is:—

1. The combination with a scale, of a printing drum thereon, and operated thereby, a paper feeding mechanism for feeding the paper below the drum, a printing face adapted to force the paper against the drum, and a rigid detent carried by the printing face for locking the drum against movement just previous to the printing operation.

2. The combination with a scale, of a printing drum carried thereby and operated thereby, a paper guide below the drum, means for forcing the paper against the

drum, means carried by the means for forcing the paper against the drum for locking the drum against movement, previous to the engagement of the paper with the drum, and means for feeding the paper through the guide.

3. The combination with a scale, of a printing drum operated thereby, a paper guide below the drum, a roll of paper adjacent the guide, means for forcing the paper against the drum and printing thereon, means carried by the means for forcing the paper against the drum for locking the drum against movement previous to the engagement of the paper with the drum, and means for forcing the paper through the guide upon release of the printing means.

4. The combination with a scale, of a printing drum operated thereby, a paper guide below the drum, means for feeding paper through the guide from a roll, means for forcing the paper against the drum, and means carried by the means for forcing the paper against the drum for locking the drum against movement just previous to the engagement of the paper with the drum.

5. The combination with a scale, of a printing drum operated thereby, teeth carried by one edge of the drum, a paper feed for feeding the paper across the face of the drum, means for forcing the paper against the drum, and a detent carried by the means for forcing the paper against the drum adapted to engage the teeth of the drum for locking the same against movement just previous to the engagement of the paper with the drum.

6. The combination with a scale, of a printing drum mounted thereon and oscillated thereby, a paper guide below the drum, means for feeding the paper through the guide, and said guide having an opening therethrough, a printing face passing transversely through the opening in the guide for forcing the paper against the drum, and a detent rigidly carried by the printing face and engaging the drum previous to the engagement of the paper with the drum.

7. The combination with a scale, of a printing drum mounted thereon and oscillated thereby, a guide below the drum, means for feeding paper through the guide, said guide having an opening therethrough, a pivoted lever carrying a printing face adapted to pass through the opening in the guide, and force the paper in engagement with the drum and printing thereon, and means carried by the printing face for locking the drum against movement during the printing engagement of the paper with the drum.

8. The combination with a scale, of a printing drum thereon, and operated thereby, a guide below the drum, an inked ribbon passing over the guide, a paper feeding

mechanism for feeding the paper through the guide, a pivoted lever having a member pivoted thereto, and carrying a printing face adapted to force the paper against the drum, and means for locking the drum against movement while the paper is in engagement with the drum.

9. The combination with a scale, of a printing drum thereon, and oscillated thereby, a guide below the drum and having an opening therethrough, teeth carried by said drum, a printing face adapted to pass upwardly through the opening in the guide, and force the paper against the printing drum, and a detent carried by the printing face adapted to engage the teeth of the drum and lock the same against movement when the paper is being printed upon.

10. The combination with a scale, of a printing drum thereon and oscillated thereby, a guide below the drum and having an opening therethrough, a roll of paper adapted to pass through the guide, a printing face having means for forcing it through the opening in the guide, and forcing the paper against the drum for printing thereon, a detent carried by the printing face and adapted to lock the drum against movement, and means for feeding the paper through the guide upon the downward movement of the printing face.

11. The combination with a scale, of a printing drum thereon, and oscillated thereby, a guide below the drum and having an opening therethrough, a roll of paper passing over a feed roller and through the guide, a pivoted operating lever carried by the scale, a printing surface carried by the lever

and adapted to be forced upwardly through the opening in the guide, and force the paper against the drum, a detent carried by the printing surface and adapted to engage the drum and lock the same against movement while the paper is in engagement with the drum, and a ratchet bar in engagement with a ratchet wheel carried by the feed roller, and pivotally connected to the operating lever, whereby the feed roller is rotated during the downward movement of the operating lever for feeding the paper through the guide.

12. The combination with a scale, of a printing drum thereon and oscillated thereby, a guide below the drum and having an opening therethrough, an inked ribbon passing over the guide, a paper roll having a strip of paper passing over a feed roller and through the guide, a pivoted operating lever, a rod pivoted to the lever and having a printing surface at its upper end adapted to pass through the opening in the guide and force the paper upwardly against the ribbon and force the ribbon in engagement with the drum for printing on the paper, a detent carried by the printing surface and engaging teeth carried by the drum for locking the drum against movement, ratchet teeth carried by the feed roller, a ratchet bar pivoted to the operating lever and held in engagement with ratchet wheel by spring means, whereby the strip of paper is fed through the guide by the downward movement of the operating lever.

In testimony whereof, I affix my signature.

FRED A. HASSE.