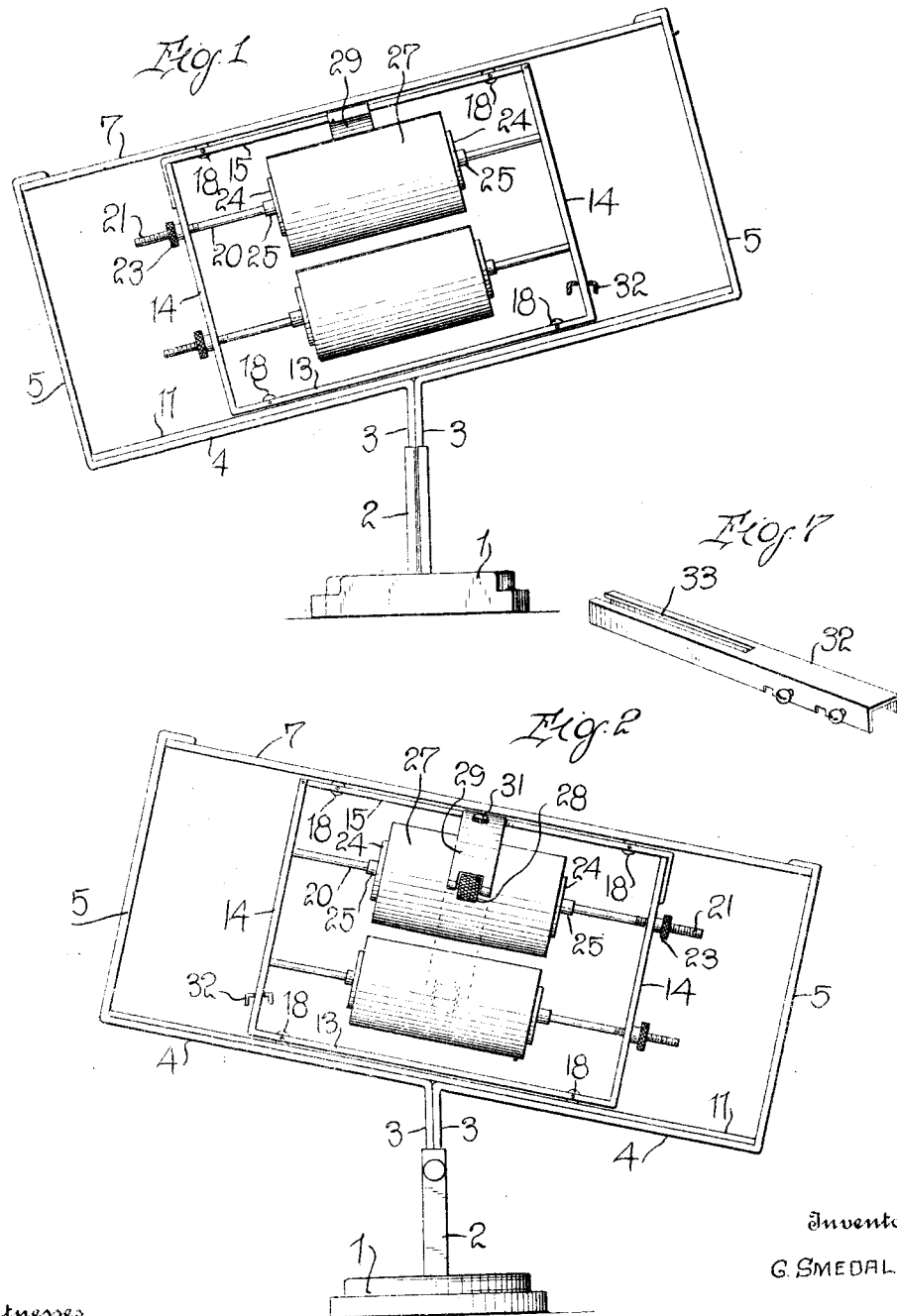


G. SMEDAL.
ATTACHMENT FOR TYPE WRITERS.
APPLICATION FILED JULY 13, 1914.

1,128,730.

Patented Feb. 16, 1915.

2 SHEETS—SHEET 1.



Witnesses:

Robert M. Sutphen
A. L. Ward

By

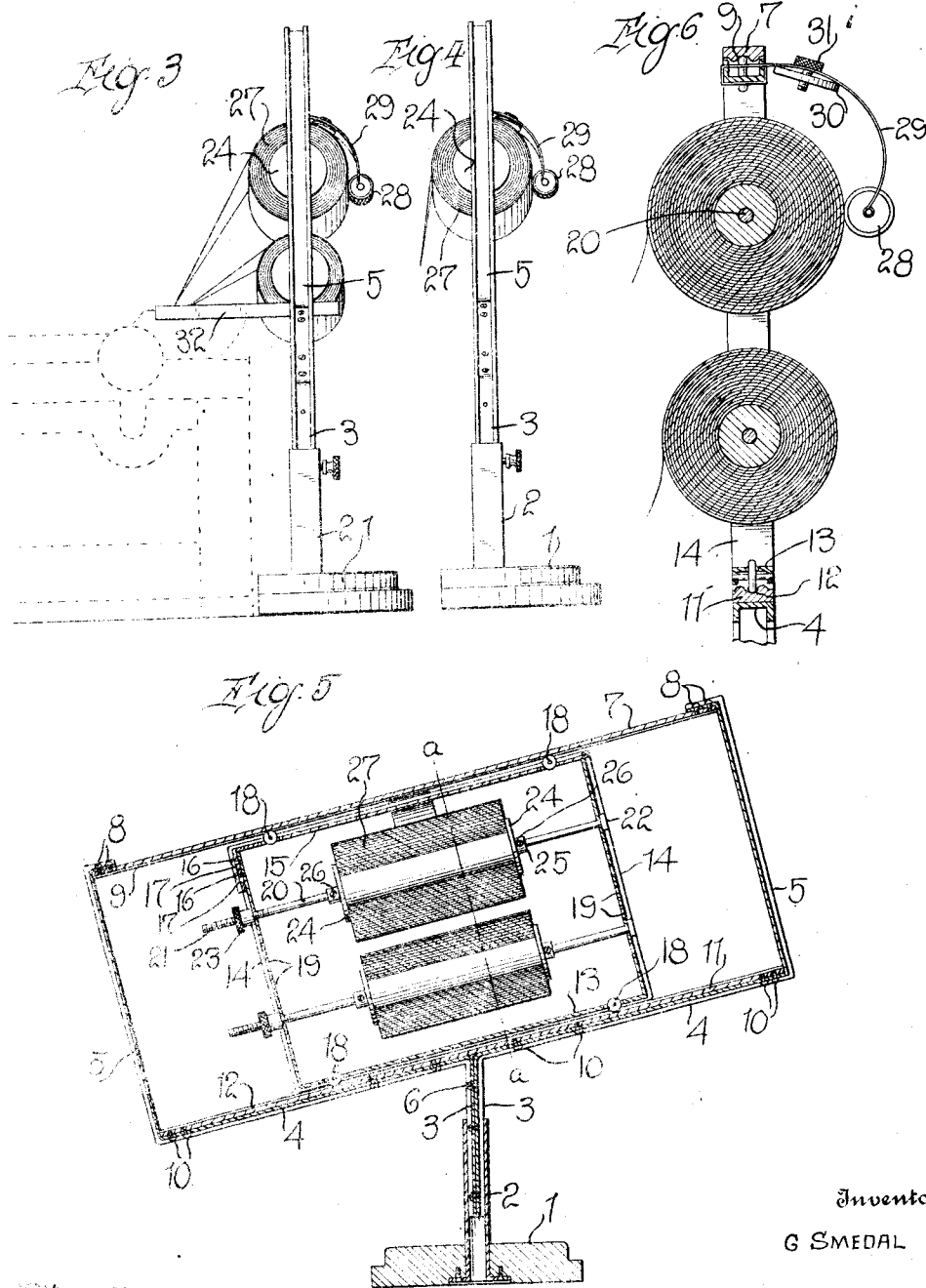
Watson E. Coleman
Attorney

Inventor
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Chas. Hind.

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UNITED STATES PATENT OFFICE.

GREGGAR SMEDAL, OF LA CROSSE, WISCONSIN.

ATTACHMENT FOR TYPE-WRITERS.

1,128,730.

Specification of Letters Patent.

Patented Feb. 16, 1915.

Application filed July 13, 1914. Serial No. 850,738.

To all whom it may concern:

Be it known that I, GREGGAR SMEDAL, a citizen of the United States, residing at La Crosse, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in Attachments for Type-Writers, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to certain new and useful improvements in attachments for typewriters, and of that type shown and described in Letters Patent granted to me May 12, 1914, Number 1,096,292.

My present invention has for its object certain changes in construction and arrangement which will readily adapt the attachment to typewriting machines of varying constructions and dimensions, and also to dispense with the peculiarly constructed side members shown in the said patent, and to render my present improved structure adaptable for use in connection with a typewriting machine by means independent of the side members referred to.

A further object of the invention is to so construct the attachment that the frame carrying the paper rolls will be automatically shifted laterally in accordance with the movement of the typewriter carriage.

With these ends in view my invention consists in the novel features of construction and the combination and arrangement of parts hereinafter more fully described and shown.

In order that those skilled in the art to which my invention appertains may know how to make and use my improved attachment, I will proceed to describe the same referring by numerals to the accompanying drawings in which,

Figure 1 is a front elevation of the attachment with two rolls of paper secured therein, Fig. 2 is a rear elevation of the same, Fig. 3 is an end or side elevation showing it in operative relation with a typewriting machine. Fig. 4 is a view similar to Fig. 3, but showing only one roll of paper in place, Fig. 5 is a central longitudinal section of the attachment disengaged from a typewriting machine, Fig. 6 is a transverse section on the line *a-a* of Fig. 5 and Fig. 7 is a perspective view of an adjustable bifurcated, or forked device, adapted to connect the paper roll frame with the paper carriage of a typewriting machine.

Similar reference numerals indicate like parts in the several figures of the drawings.

1 represents a pedestal preferably composed of cast iron to secure proper weight for maintaining the attachment in proper relation with a typewriting machine and to which it may be coupled as will be presently explained.

2 is a hollow post fixed rigidly to the pedestal and adapted to receive and support the legs of the frame which carries the paper roll frame. The paper roll carrying means includes an outer frame formed of end members 5, a top longitudinal member 7 and a lower longitudinal member 4. This lower longitudinal member 4 is formed by two bars, each of which is designated 4 in the drawings, these bars meeting at the middle and being downwardly turned to provide legs 3 extending down into the hollow post 2. These vertical legs 3 are secured to each other by screws 6, the heads of which lie within the space between the edges of the angle iron composing the legs, as clearly shown in Fig. 5. The bar 7 is a flat bar and is secured at its two ends to the end members 5 by suitable screws 8. I of course do not wish to be limited to the exact construction of this frame.

The construction so far described constitutes a rectangular frame with a vertical leg adapted to be supported at any desired elevation within the post 2. The flat bar or top of this frame is formed with a longitudinal track or groove 9, (see Figs. 5 and 6), in its under side for the purpose presently explained, and to the bottom of the frame is secured by screws 10, or otherwise, a bar 11, formed on its upper surface with a track or groove 12, similar to a like feature in the upper bar. The traveling frame for carrying one or more rolls of paper is rectangular in form, consisting of a bottom rod 13, two ends 14, and a top bar 15, the latter secured to the ends by screws 16, passing through slots 17 in the returned extremities thereof, in order that it may be readily adjusted with reference to the bottom bar of the frame, to thus permit the inner traveling frame to be removed from the outer frame. Secured within the top and bottom of this paper roll frame at suitable localities are antifriction wheels 18, adapted to travel in the tracks or grooves 9 and 12. The ends of the paper roll frame are formed with a series of equidistant holes

19, for the reception and support of a paper roll shaft 20, with one end threaded as shown at 21, and the other end formed with a square head 22 adapted to be held in position by the right angle edges of the end 14 of the frame.

23 is a nut with milled circumference and with a shank adapted to extend and lie within the edges of the opposite end 14, when the nut is in position to hold the shaft in fixed relation with the frame. Arranged upon the shaft 20, are two movable disks or heads 24, formed with hubs 25, provided with set screws 26, by means of which said disks or heads may be held in any desired adjusted positions. From the construction just described it will be obvious that these disks or heads may be adjusted upon the shaft 20, to hold a roll of paper of any width against longitudinal movement on its shaft.

27 is a roll of paper with a wooden box or center, mounted rotatively upon the shaft 20, and 28 is a pressure roller rotatively mounted in the bifurcated end or tail of a flat steel spring 29, the opposite end of which is bent to conform with, and is longitudinally adjustable upon the top of the paper roll frame as clearly shown in Fig. 6. The pressure roller is equipped with a friction surface, preferably roughened rubber, and the tension of the spring (which as will be seen is curved), may be adjusted by means of a stiff disk 30, and a set screw 31, in an obvious manner.

As shown in the drawings the attachment may be provided with only one or with two rolls of paper when in the latter case, a carbon copy if desired is secured by means of a carbon sheet interposed between paper fed from the rolls.

The two frames of the attachment are shown as at slight angle to a horizontal plane in order that when the paper roll is being carried by the typewriting machine carriage to the left, the paper roll frame by reason of its inclined relation and its anti-friction wheels will by gravity travel coincidentally with the machine carriage and relieve it from any undue strain. If however for any reason it should be desired, the attachment frames may be arranged in horizontal plane without departing from the spirit of my invention.

From the construction so far shown and described, it will be seen that the attachment *per-se* is entirely independent of a typewriting machine, and in order that it may be readily placed in operative relation with machines of different makes, I provide a link or bridge 32, such as shown in Fig. 7, one end of which is bifurcated as seen at 33, and adapted to straddle or embrace the end of the paper roll frame, and the opposite end fashioned in any suitable manner for

convenient connection with the paper carriage frame of a typewriting machine.

While I have shown the frames and support composed of metal in the form shown in cross section, and prefer such form as securing maximum strength and rigidity with minimum weight, I do not wish to be confined in this particular as any other suitable form may be used if so desired; nor do I wish to be confined to the use of any particular material, so long as the character of the same adapts it to the uses required.

In lieu of using two rolls of paper if desired and as hereinbefore referred to, a single roll with two larianæ of paper and with a carbon sheet intermediate, may be employed as stated in the Letters Patent granted to me and hereinbefore referred to, and while I have shown the attachment mounted upon a single pedestal it may be varied in this detail if deemed desirable without departing from my invention.

It will be readily seen from what has been said that my improvement is not only readily adapted for use with any make of typewriting machine accordingly as the connection may be designed, but that by reason of such connection the paper roll frame with the roll mounted thereon is moved longitudinally and positively by the carriage of the typewriting machine, which is relieved from any undue strain by the paper fed from the roll, and likewise the paper not being under undue strain is relieved from the tendency of being warped as it is fed from the roll during the printing operation. It will also be seen that when it is desired to use the typewriting machine in the usual manner with separate sheets of paper, it will only be necessary to move the attachment away from such machine, releasing it from the bifurcated connecting link or bridge, which latter although attached to the machine will in nowise affect its use.

Having described the construction, operation, and advantages of my improved attachment, what I claim as new and desire to secure by Letters Patent is:—

1. An attachment for use in connection with typewriting machines consisting of a rectangular frame mounted upon a weighted pedestal, the top and bottom of said frame formed interiorly with longitudinal grooves or tracks, in combination with a rectangular frame provided with an adjustable shaft having rotatively mounted thereon a roll of paper, and anti-friction wheels journaled in the top and bottom of the paper roll frame and adapted to travel in grooves or tracks in the top and bottom of the roll frame support, substantially as and for the purpose set forth.

2. In an attachment such as described, a supporting frame, and paper roll supporting means reciprocally mounted within

said frame for free longitudinal movement, said means permitting free rotation of the paper roll independent of its reciprocation.

3. In an attachment such as described, a paper roll frame reciprocatively located within its carrying frame, said latter frame vertically adjustable upon a supporting pedestal, substantially as and for the purpose set forth.

4. In an attachment such as described a paper roll frame reciprocatively mounted within a rectangular carrying frame, said carrying frame supported upon a pedestal in a position inclined to a horizontal plane, whereby the paper roll frame may travel in one direction by gravity, as and for the purpose hereinbefore set forth.

5. In an attachment of the character described, a relatively fixed support, and a paper roll slidably mounted upon said support for free reciprocation in the direction of its axis, said roll being freely rotatable independent of its reciprocatory movement.

6. In combination with an attachment embodying a frame carrying a paper roll supporting frame, and mounted in a rigid pedestal, a link or bridge adapted to removably embrace one end of the roll supporting frame, and with its opposite end adapted to be secured rigidly to a typewriting machine whereby the attachment may be held in operative relation with the machine, and instantly separated therefrom, substantially as hereinbefore set forth.

7. An attachment for typewriting machines comprising a rectangular relatively fixed frame, a frame slidably supported within the fixed frame for longitudinal movement with relation thereto, and paper roll shafts carried by said sliding frame.

8. An attachment for typewriters including an outer relatively fixed frame, an inner frame slidably mounted upon the fixed frame for movement relatively thereto and detachable therefrom, and paper roll supporting shafts carried upon the sliding frame.

9. A typewriting attachment comprising a longitudinally extended rectangular frame, a sliding frame mounted within the

rectangular frame and movable longitudinally thereof, and a paper roll supporting shaft detachably connected to the sliding frame.

10. An attachment for typewriters comprising a frame fixed relative to the carriage of the typewriter, paper roll supporting means slidably mounted on the fixed frame for longitudinal movement with relation thereto, and a connecting member operatively connected at one end to the paper roll supporting member and its other end adapted to be connected to the carriage of the typewriter.

11. An attachment for typewriters comprising a relatively fixed frame, disposed in a vertical plane and inclined to a horizontal plane, and paper roll supporting means slidably mounted within the relatively fixed frame.

12. An attachment for typewriters comprising a relatively fixed frame disposed in a vertical plane and inclined to a horizontal plane, paper roll supporting means slidably mounted within the relatively fixed frame, and a connecting member operatively connected at one end to the sliding supporting means and at its other end adapted to be connected to the carriage of the typewriter.

13. In an attachment such as described, a pressure roll, a curved resilient member supported at one end and carrying at its other end said pressure roll, and means for adjusting the tension of said resilient member, said means comprising a member disposed on the concave face of the resilient member and bearing at its opposite ends against said member, and a screw passing through the second named member and into the resilient member and adapted to effect the tensioning of the resilient member by shifting the second named member toward or from the resilient member.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

GREGGAR SMEDAL.

Witnesses:

JAMES THOMPSON,
CARRIE JOHNSTON.