No. 895,662. PATENTED AUG. 11, 1908.

M. P. MORSE.

FEED GAGE PIN.

APPLICATION FILED JULY 19, 1907.

Fig. 1.

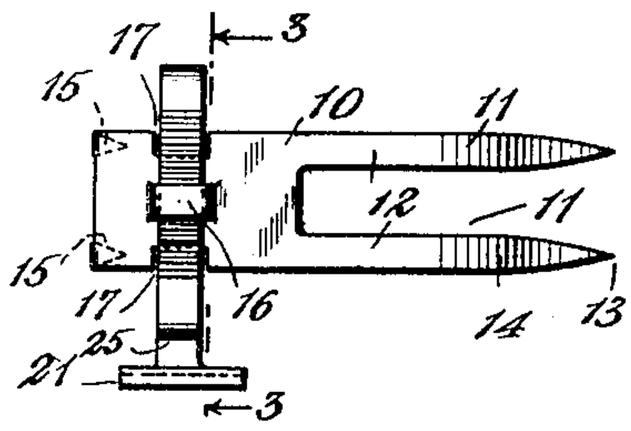


Fig. 4.

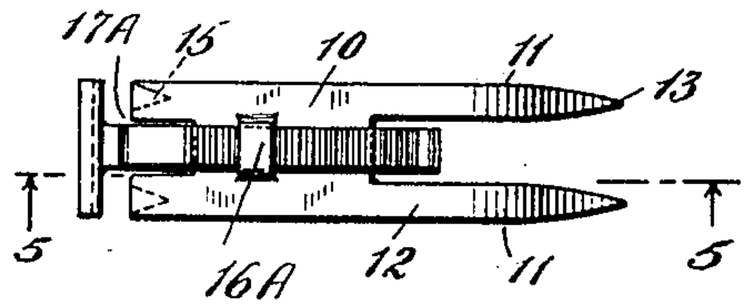


Fig. 2.

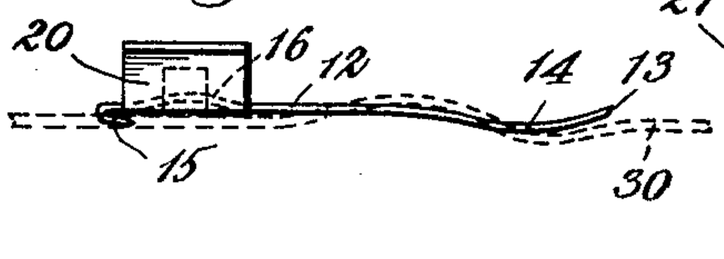


Fig. 5.

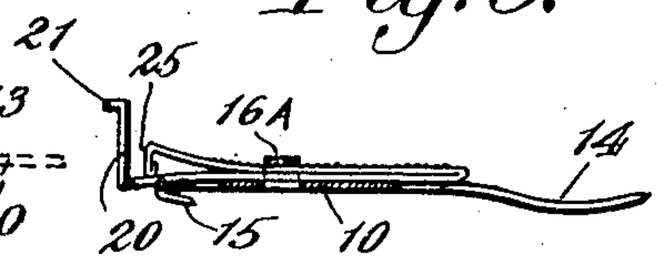


Fig. 3.

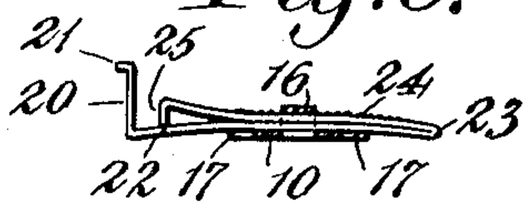


Fig. 8.

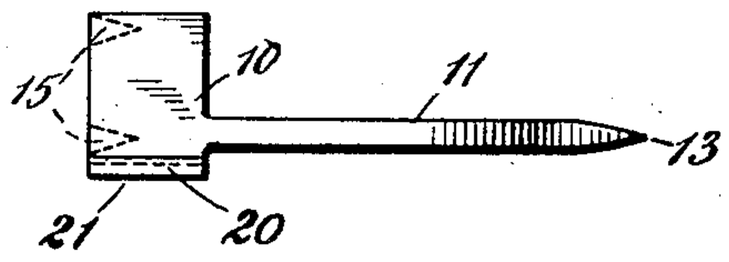


Fig. 6.

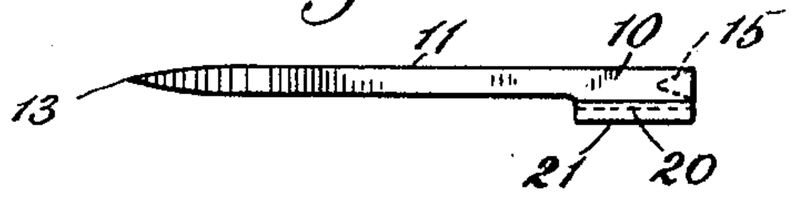


Fig. 7.

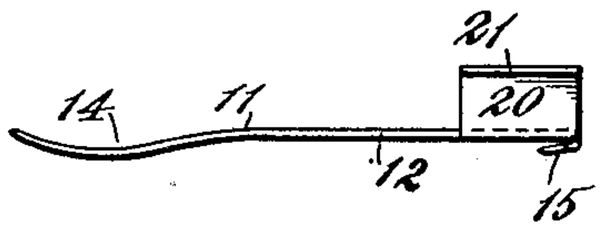
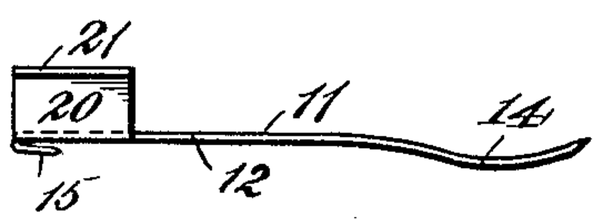


Fig. 9.



WITNESSES:

H. L. Rocheron

Ella L. Luck

INVENTOR.

Melvin P. Morse

BY

E. W. Marshall

ATTORNEY.

UNITED STATES PATENT OFFICE.

MELBURN P. MORSE, OF BALLSTON SPA, NEW YORK.

FEED-GAGE PIN.

No. 895,662. Specification of Letters Patent. Patented Aug. 11, 1908.

Application filed July 19, 1907. Serial No. 384,508.

To all whom it may concern:

Be it known that I, MELBURN P. MORSE, a citizen of the United States, and a resident of Ballston Spa, in the county of Saratoga and State of New York, United States of America, have invented certain new and useful Improvements in Feed-Gage Pins, of which the following is a specification.

My invention relates to an improvement in feed gage pins such as are attached to the tympan sheet of a printing press, and its object is to provide a simple and efficient pin which has many advantages over those known in the art.

I will describe my invention in the following specification and point out the novel features thereof in claims.

Referring to the drawings, Figure 1 is a plan view of one form of the gage pin which I have invented. Fig. 2 is a side elevation of the same structure. Fig. 3 is a sectional end view of the pin shown in Figs. 1 and 2, the section being taken on the line 3—3 of Fig. 1. Fig. 4 is a plan view and Fig. 5 a sectional side elevation of another form of my improved gage pin, the section in Fig. 5 being taken on the line 5—5 of Fig. 4. Fig. 6 is a plan view and Fig. 7 is a side elevation of a simple form of my invention. Fig. 8 is a plan view of another modification of my invention, and Fig. 9 is a side elevation of the form of gage pin shown in Fig. 8.

Like characters of reference designate corresponding parts in all of the figures.

10 designates the body portion of my improved pin, from one end of which one or more prongs 11, 11 extend longitudinally. These prongs are of the peculiar form shown in the drawings. The part of the prong which is adjacent to the body portion of the pin is in the form of a straight flat shank 12. Its outer end is pointed as at 13, while the portion intermediate the straight flat shank and the point is curved downward as at 14. This is a familiar construction, and it not only facilitates the insertion of the prong or prongs in the tympan on the impression platen, but as the curved portion 14 is designed to rest upon the outer surface of the tympan it tends to push the outer end of the body portion of the pin down against the tympan. This part of the operation is illustrated in Fig. 2 in which the tympan is represented by dotted lines and is designated by the numeral 30.

At the opposite end of the body portion 10 of the pin one or more shorter prongs 15, 15 are provided. These are bent back under the body portion so that they are parallel with the prong or prongs 11. These too are arranged to be pushed into or through the tympan 30 and assist in holding the body portion of the gage pin securely in place upon the tympan, and also to prevent it from slipping laterally or from being pushed up away from the tympan.

A loop or strap 16 is placed upon the surface of the body portion 10. This is preferably stamped out of the metal of the body portion itself in the manner shown in Figs. 1, 2 and 3. At either side of this strap the sides of the body portion may be cut away as shown at 17, 17 as this will facilitate one part of the operation of the device.

20 designates a guiding surface which is provided with the usual overhanging lip 21 along its upper edge. The height of this guiding surface and the amount of projection of its overhanging lip may be varied according to the work to which the pin is to be applied.

22 designates the lower portion of a sliding tongue which is attached to the portion which forms the guiding surface 20 or which is an integral part of the latter. The rear end of this tongue is bent back upon itself at 23 to form the upper portion 24 of the tongue, and its other end is bent downward to form a shoulder at 25 which is arranged to contact with the part 22. The sliding tongue is preferably constructed of spring metal and the upper and lower portions thereof are so formed that they have a slight tendency to spread apart.

The sliding tongue is arranged to be placed over the top of the body portion 10 of the pin and under the strap 16. It may be inserted from either the left-hand or the right-hand side of the body portion of the pin according to the position of the pin on the platen in relation to the work to be guided. The tongue and its connected guiding face may be moved a desired amount toward or away from the body portion 10. The tendency of the two parts of the tongue to spread apart will cause it to be held firmly in position, and in order to remove all possibility of the tongue and its connected guiding surface slipping in relation to the body portion of the pin, I prefer to corrugate or roughen the upper surface of the part 24 of the tongue and the under surface of the strap 16 with which the part 24 comes in contact.

The strap 16, of course, holds the two

parts of the tongue together, and this causes the bent portion or shoulder 25 to be pushed down upon the part 22.

In using my improved gage pin upon a printing press the body portion is secured to the tympan in such a position as to bring the guiding surface 20 into approximately the position required for guiding the work. The guiding surface may then be adjusted by hand to a great nicety. The bent portion or shoulder 25 will press the part which forms the guiding portion tightly down against the tympan so that the latter will successfully stop the thinnest sheet of paper at the desired point, and this pressure will be resisted by the prongs 15, 15. The recesses 17, 17 which are cut out of the sides of the body portion are provided for the purpose of allowing the lower portion 22 of the sliding tongue to be pushed downward by the shoulder 25 and to prevent the sides of the body portion of the pin from interfering with this function.

It is to be noted that the means which I have provided for holding the pin upon the tympan are at right angles to the thrust of the material upon the guiding face. It may also be seen that there are no holes made in the tympan by the pin near the guiding surface, upon the roughened edges of which the work would so easily catch. The extreme ease of adjustment and the distance through which such adjustment can be made without changing the position of the pin upon the tympan are also valuable features.

In the form of my invention shown in Figs. 4 and 5 the body portion is made in the form already described, but the strap 16^A in this case is set laterally across the body portion, and a recess 17^A is cut in the end rather than in sides of the body portion. The guiding member and its sliding tongue are like those already described, and the operation is similar except that with this form of gage pin the thrust is parallel with the holding prongs and, of course, this pin can not be set out so close to the edge of the tympan.

In the modification of my invention shown in Figs. 6 and 7 the body portion 10 is provided with but one long curved prong 11 and one short prong 15, and the guiding face 20 is integral with the body portion of the pin. This form of gage pin may be set out upon the edge of the tympan and thus make possible the printing of a full form of type.

Figs. 8 and 9 show a similar form of gage pin, but in this case the body portion is provided with one long curved prong 11 and two short prongs 15.

It is evident that in these forms of pins in which the portions which form the guiding surfaces are integral with the body portions the guiding surfaces cannot be changed from one side of the pin to the other as can be done with the pin shown in Fig. 1. For this reason I make these one-piece pins left and right-handed in order to make them adaptable to all kinds of work. I have in the drawings shown one of these pins with the guiding surface on the left-hand side of the body portion and the other with the guiding surface on the right-hand side of the body portion to illustrate this feature.

I have illustrated several forms of my invention to show that I do not limit myself to any one form of construction or design.

What I claim is.—

1. A gage pin having a flat body portion, a long curved holding prong extending longitudinally from one end of said body portion, and a short holding prong extending from the other end of the body portion under said body portion and in the same direction as the long holding prong, said short holding prong being arranged to secure the pin to the tympan and to prevent its being raised therefrom.

2. A gage pin having a flat body portion, a long curved holding prong extending longitudinally from one end of said body portion, a short holding prong extending from the other end of the body portion under said body portion and in the same direction as the long holding prong, said short holding prong being arranged to secure the pin to the tympan to prevent its being raised therefrom, and a guiding surface at one side of the body portion and parallel with the prongs.

3. A gage pin having a flat body portion, a pair of long curved holding prongs extending longitudinally from one end of said body portion, and a pair of short holding prongs extending from the other end of the body portion under said body portion and in the same direction as the long holding prongs.

4. A gage pin having a body portion, a pair of long curved holding prongs extending from one end of said body portion, a pair of short holding prongs extending from the other end of said body portion in the same direction, and a guiding surface at one side of the body portion and parallel with the prongs.

5. A gage pin having a body portion, a pair of long curved holding prongs extending longitudinally from one end of said body portion, a pair of short holding prongs extending from the other end of the body portion under said body portion and in the same direction as the long holding prongs, a guiding surface parallel with said prongs, and means for adjusting and fixing the lateral position of said guiding surface relative to said prongs.

6. A gage pin having a flat body portion, a pair of long curved holding prongs extending longitudinally from one end of said body portion, a pair of short holding prongs extending from the other end of the body portion under said body portion and in the same

direction as the long holding prongs, a guiding surface parallel with said prongs, and means for adjusting the lateral position of said guiding surface.

7. A gage pin having a flat body portion, a long holding prong extending from one end of said body portion, a short holding prong extending from the other end of the body portion in the same direction, a strap upon the body portion, a guiding member, a tongue extending therefrom and under the strap upon the body portion, and means for adjusting and fixing the position of the guiding member relative to the body portion of the pin.

8. A gage pin having a flat body portion, a long holding prong extending from one end of said body portion, a short holding prong extending from the other end of the body portion in the same direction, a strap upon the body portion, a guiding member, a tongue extending therefrom and under the strap upon the body portion, means for adjusting the position of the guiding member relative to the body portion of the pin, and means for preventing slipping of the tongue under the strap.

9. A gage pin having a flat body portion, a long holding prong extending from one end of said body portion, a short holding prong extending from the other end of the body portion in the same direction, a strap upon the body portion, a guiding member, a tongue extending therefrom, said tongue being of spring metal and constructed to form a lower member and an upper member and adapted to be held between the flat body and the strap of the body portion and to be adjustably held thereby.

10. A gage pin having a flat body portion, a long holding prong extending from one end of said body portion, a short holding prong extending from the other end of the body portion in the same direction, a strap upon the body portion, a guiding member, a tongue extending therefrom, said tongue being of spring metal and constructed to form a lower member and an upper member and adapted to be held between the flat body and the strap of the body portion and to be adjustably held thereby, the inner end of the upper member arranged to exert a downward pressure upon the lower member of the tongue and its connected guiding member.

11. A gage pin having a flat body portion, a long curved holding prong extending longitudinally from one end of said body portion, and a short holding prong extending from the other end of the body portion under said body portion and in the same direction as the long holding prong, a strap upon the body portion, a guiding member, a tongue extending therefrom, said tongue being of spring metal and constructed to form a lower member and an upper member and adapted to be held between the flat body and the strap of the body portion and arranged to be adjustably held thereby, and means for preventing slipping of the tongue under the strap.

12. A gage pin having a flat body portion, a pair of long curved holding prongs extending longitudinally from one end of said body portion and a pair of short holding prongs extending from the other end of the body portion under said body portion and in the same direction as the long holding prongs, said holding prongs being arranged to hold the pin upon a tympan, a strap upon the body portion and integral therewith, the lower surface of said strap being corrugated, a guiding member, a tongue extending therefrom, said tongue being of spring metal and constructed to form a lower member and an upper member and adapted to be held between the flat body and the strap of the body portion, and to be adjustably held thereby, the upper surface of the upper member of the tongue being corrugated, the end of said upper member of the tongue being arranged to exert a downward pressure upon the lower member of the tongue and its connected guiding member.

13. A gage pin having a flat body portion, a pair of long curved holding prongs extending longitudinally from one end of said body portion, a pair of short holding prongs extending from the other end of the body portion under said body portion and in the same direction as the long holding prongs, said holding prongs being arranged to hold the pin upon a tympan, a strap upon the body portion and integral therewith, the lower surface of said strap being corrugated, the sides of the body portion being cut away at either side of the strap; a guiding member, a tongue extending therefrom, said tongue being of spring metal and constructed to form a lower member and an upper member and adapted to be held between the flat body and the strap of the body portion and to be adjustably held thereby, the upper surface of the upper member of the tongue being corrugated, the end of said upper member of the tongue being bent downward to form a shoulder and arranged to exert a downward pressure upon the lower member of the tongue and its guiding member against the holding effect of the short holding prongs.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MELBURN P. MORSE.

Witnesses:
JULIUS D. SWEET,
ELLA LUCH.