A. T. DePUY.

Printers' Galley.

No. 160,654. Patented March 9, 1875.

Fig. 1.

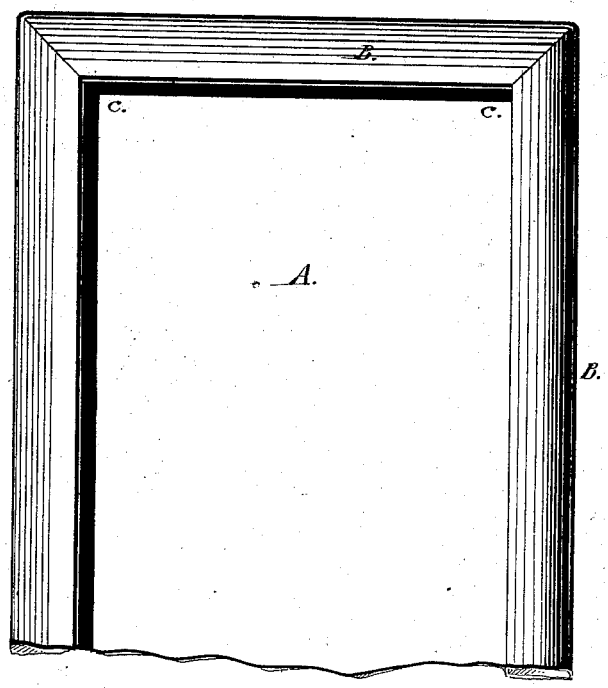


Fig. 2.

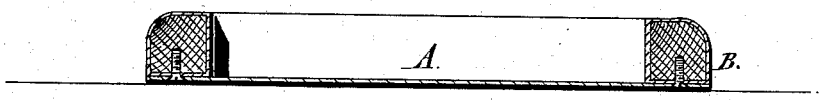


Fig. 4.

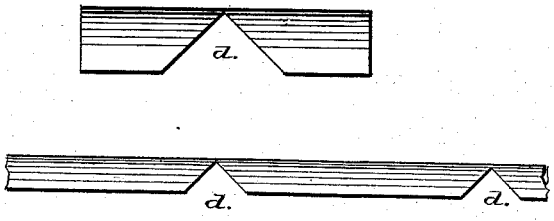
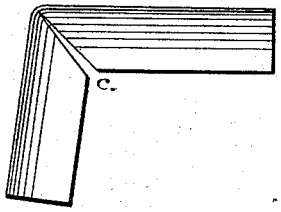


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALEXANDER T. DE PUY, OF NEW YORK, N. Y., ASSIGNOR TO R. HOE & CO., OF SAME PLACE.

IMPROVEMENT IN PRINTERS' GALLEYS.

Specification forming part of Letters Patent No. **160,654**, dated March 9, 1875; application filed March 2, 1875.

To all whom it may concern:

Be it known that I, ALEXANDER T. DE PUY, of the city, county, and State of New York, have invented an Improvement in Printers' Galleys, of which the following is a specification:

The invention relates to the construction of the edge rail of a printer's galley, as will be more particularly hereinafter pointed out.

In the accompanying drawings, in which like letters indicate like parts, Figure 1 is a top view of the galley complete; Fig. 2, a sectional view of Fig. 1; Fig. 3, a view of the rail partially bent to form the corner; and Fig. 4, a view of the rail recessed or mitered at proper points to provide for its subsequent binding.

In the common galley the side and end rails are composed of wood faced interiorly with metal, and secured to a base-plate by screws. In practical use such a galley, or one in which exposed wood is a component part, will shortly become warped, by reason of the absorption by the wood of the liquid wash used in cleaning the types it is made to contain. This distortion soon renders the galley comparatively useless, since the warping of the side rail twists the base-plate out of its necessary and proper level. This disadvantage has been overcome by a galley patented to me August 10, 1869, which has wooden-cored tubular metallic edge rails. The said rails have their metallic ends, where they meet to form the corners at the head of the galley, secured together by soldering, and are further fastened by braces or ties inserted through them at right angles to their line of junction, by which means their union is effected. Such a galley is expensive in its production, inasmuch as the corner braces require nice adjustment, and the corner joints secure union by soldering, in order to effectually resist the great strain incident to lifting a quantity of type in the galley.

According to the present invention, I form the rail of an indefinite length from a tube of brass or other suitable metal, rolled about a mandrel, and brazed or soldered at the line of junction of its sides, so as to form a tube; or it may be drawn into tubular form, as is commonly practiced in the art of working brass, which tube may have a sectional configuration, as shown in Fig. 2, or any other which provides two adjacent sides at right angles to each other. Such a tube is provided with a core of wood, or similar inexpensive material, which shall impart to it the necessary strength, solidity, and stiffness, and at the same time be capable of holding the screws which fasten the base-plate to it. The tube is then cut to a length corresponding to the outside measurement of the base-plate A, which determines the size of the galley, and which may obviously be a parallelogram of any dimension in either direction. At suitable points, corresponding to the relative positions of the two corners *c c*, at one end of the galley, I remove triangular portions of the body of the rail, as at *d d*, cutting from the inner face through the metal shell and wooden core to such an extent as to leave the rail perfect only at the outer side thereof, where the outer shell or one side of the tube remains intact. The cut may in some cases extend partially through the outer shell; but in all cases enough metal must be left at this point to insure a proper degree of strength for the subsequent operation of bending the rail at these points to make it assume the rectangular form of the bed. Thus bent it will exactly conform not only to the size but the shape of the bed-plate. As the sides of this cut or miter are at an angle of forty-five degrees to the plane of the sides of the rail, it follows that when they are brought together and joined to form a right angle they will fit so perfectly as to leave no opening, forming, in fact, a perfect joint, which need have no other means of union but that provided by the unperforated outer shell of the rail-tube, which now forms the extreme or outer corners, and a complete continuous exterior side of the rail. The exact relation of this bend to the coinciding mitered sides of the corner joint is fully shown in Fig. 3, where the joint is represented as spread apart for this purpose. The rail throughout its entire length is secured at proper points to the metal base-plate by means of screws introduced from beneath, and countersunk, as is usual. The ends of the rail, at the foot of the galley, may be closed by a metal plate soldered to the ends of the metal tube, or secured to the wooden core by a screw.

Thus is provided a galley whose whole exposed surface is of metal, and which will, of course, resist any deleterious effect of the ley or other washing liquid, which may be brought into contact with it. Thus constructed, it is without soldered joints and auxiliary corner braces or ties, either interiorly or exteriorly, which are not required. This method of forming the corners affords a strength more than equal to any strain which is exerted in its use, and presents a smooth and unbroken surface, which will not abrade the hands in manipulating it.

I contemplate forming a perfect union between the coinciding ends of the wooden core at the corner by means of any suitable waterproof varnish or cement, and in some cases I may solder the metal joints at these points, though neither expedient is necessary either to its strength or to the perfection of the joint. Further, where a heavy metal tube is used, I may provide a wooden or soft-metal core at the corners, which shall extend only a short distance into the tube ends. The corner will then be closed with or without the cement or soldering. It is also in such case practicable to omit the core altogether, when it will be desirable to solder the joint to prevent the otherwise unsupported top sides of the tubes from being bent inwardly; or, if the metal be heavy enough to resist undue strain at the corners, this expedient need not be resorted to. If, however, the wooden core be omitted, either partially or wholly, it will be necessary either to solder the metal rail to the bed, or attach it thereto by means of screws adapted to the metal plate composing the rail. In such modification the rail ends will be closed, as before described, by a metal plate soldered to the tube end or screwed to the core.

Having thus described my invention, what I claim is—

A printer's galley, the metallic rail of which is formed of a continuous tube mitered and bent at its corner, substantially as described, and for the purpose set forth.

ALEXANDER T. DE PUY.

Witnesses:

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N. WALTER ANTHONY.