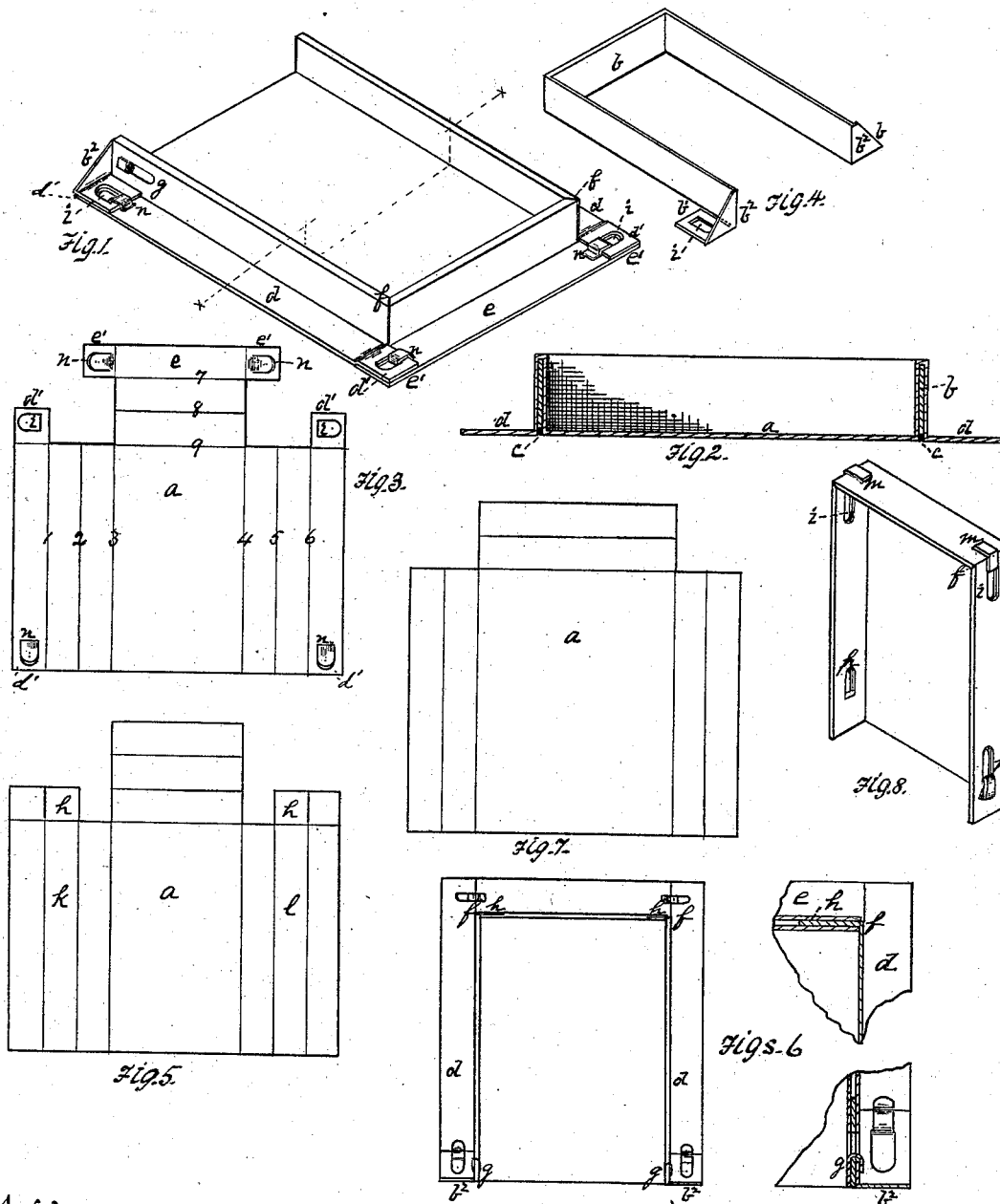


T. T. McNISH.
Printer's Galley.

No. 214,832.

Patented April 29, 1879.



Witnesses.

L. C. Fitter.
A. B. Schulz.

Inventor

Thos. T. McNish
by Bateman & Herr
his attorney

UNITED STATES PATENT OFFICE.

THOMAS T. McNISH, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD HIS RIGHT TO ALLAN C. KERR, OF SAME PLACE.

IMPROVEMENT IN PRINTERS' GALLEYS.

Specification forming part of Letters Patent No. **214,832**, dated April 29, 1879; application filed March 29, 1879.

To all whom it may concern:

Be it known that I, THOMAS T. McNISH, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Printers' Galleys; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my improved printer's galley. Fig. 2 is a cross-section at *x*, Fig. 1. Fig. 3 is a plan view of the blank or plate from which the galley is formed. Fig. 4 is a view of the stiffening-piece which is placed inside of the walls of the galley.

Printers' galleys have heretofore been made either entirely of wood, or with a brass bottom and brass-lined wooden sides, or entirely of brass, the bottom being formed of a piece of sheet-brass and the sides or walls of a square or angle shaped brass bar riveted to the bottom. Where the sides are of wood lined with brass, the brass is sometimes secured to the wood by screws or rivets and sometimes by sinking its edges into the wood. In other cases the wood is surrounded by the brass, and the sides thus formed secured to the bottom piece by rivets or screws or by soldering.

The principal requisites of a good galley are that it be true and not liable to become warped or bent or injuriously affected by the lye and water used in cleaning the type.

The wooden galley, which was the primitive form, and is now almost discarded, soon becomes warped, owing to its being often wet, and hence untrue and unfit for use. The galley with wooden frame and brass lining is also open to the objection of warping, but not to as great an extent as the wooden galley. In this galley the wood is used to stiffen the sides, and, as the brass lining is light and thin, it is frequently drawn out of true by the warping of the wood. In those cases where the brass lining is secured to the wood by screws or rivets the lye and water has a tendency to eat in around the screws or rivets and loosen the lining. These objections are overcome in the all-brass galley, in which the sides are made heavy enough to prevent their being bent. The objection to this galley is its expense, for which reason the brass-lined galley, which is much

cheaper, although not so good, is in more general use.

My improved galley is as cheap as the brass-lined, and as good as the all-brass, galley.

In making it I use common sheet-brass. I cut or stamp out a blank like *a*. I then fold or crimp it as shown by the cross-section, Fig. 2, place the stiffening-piece or liner *b* in the fold, and close it in by brazing or soldering at *c*. The ends *d'* of the side flanges, *d*, overlie or are overlaid by the ends *e'* of the end flange, *e*, at the rear end, and by the ends *b'* of the liner *b* at the front end. The overlying end at each corner is cut out, as at *i*, and a lip, *n*, partially cut from the underlying piece is turned up through the opening *i*, over the end of the upper piece, thus forming a strong, simple, and cheap corner-fastening and brace.

The blank *a* is marked with lines 1 to 9, which indicate the lines of fold. Of these 1 2 3 and 4 5 6 show the side folds, and 7 8 9 the end fold, 2 5 8 being the apex lines. In Figs. 3 and 4 of the drawings the lines at *i* indicate the cut-away portions of the ends, and at *n* the lip, which is designed to be clinched through the opening *i*. The liner *b*, as turned out at *b'* to overlap on the side flange, *d*, forms a brace on each side, which braces and sustains the forward end of the side wall. It also serves to connect and support the corners *f*, which, when the metal is folded to form the side and end walls, are otherwise not connected or supported. This is a very important advantage arising from the use of the liner, as it is necessary that the corners *f* should be supported. Thus the whole device is stiffened and made strong and compact by the incorporation of the liner in the walls.

The liner *b* is a simple strip of brass cut from the sheet.

The parts which constitute this galley may be stamped or cut out of the sheet by machinery with great rapidity, and it is my intention to do this work by machinery as well as that of folding or crimping the blank.

This galley being made of sheet-brass, and being so simple of manufacture, is fully as cheap as the brass-lined galley before mentioned, and at the same time is as true and much stronger and lighter than the all-brass galley.

Instead of securing the liner in place by

means of solder, the mode of fastening shown at *i* and *n* may be employed for this purpose, the lip being cut from the inner piece and turned outward through an opening cut in the liner and outer fold. In order to illustrate this I have inserted a view of it at *g* in Fig. 1.

While I prefer and recommend to others the form of galley shown at Fig. 1, I will now describe a simpler modification of my invention. Figs. 5 and 6 show this modification. Here the liner is omitted, and the blank is cut with the side folds *k* and *l*, having each a projection, *h*, at the rear end, which, when the blank is folded, is bent and tucked into the end fold, as shown by the sectional view in Fig. 6. The front braces, *b*², here are made of short pieces of sheet metal, which are fastened to the sides and flanges by clinch-joints *g*, or otherwise.

If desired, the walls may be stiffened by running in a line of solder between the folds.

Still another form is shown by Figs. 7 and 8. Here the blank is cut without flange-pieces. The metal is folded upon itself in the way hereinbefore described, and the corners *f* are supported as in the last modification, or as shown at *m*, or by any other suitable means. No liner nor side brace is employed; but the forward ends of the sides are stiffened, strengthened, and united by a clinch-joint at *p*. The turning out of the lip from the inner side does not affect the trueness of its sides.

I propose to make this galley of any suitable metal, such as brass.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A printer's galley the walls of which consist of two vertical parallel thicknesses of the sheet or blank which constitutes the bottom, substantially as and for the purposes described.

2. A printer's galley the walls of which consist of two vertical parallel thicknesses of the sheet or blank which constitutes the bottom, provided with a metallic liner placed and fastened in the fold, substantially as and for the purposes set forth.

3. A printer's galley having vertical walls with base flanges, which are fastened together at the corners, said walls and flanges being integral with the sheet or blank of which the bottom is formed, substantially as and for the purposes described.

4. A printer's galley having vertically-folded sides and braces secured between the vertical leaves of the fold, extending laterally from the front ends of the folded sides and fastened for the purpose of bracing the front ends of the sides, substantially as described.

In testimony whereof I, the said THOMAS T. McNISH, have hereunto set my hand.

THOMAS T. McNISH.

Witnesses:

R. H. WHITTLESEY,
T. B. KERR.