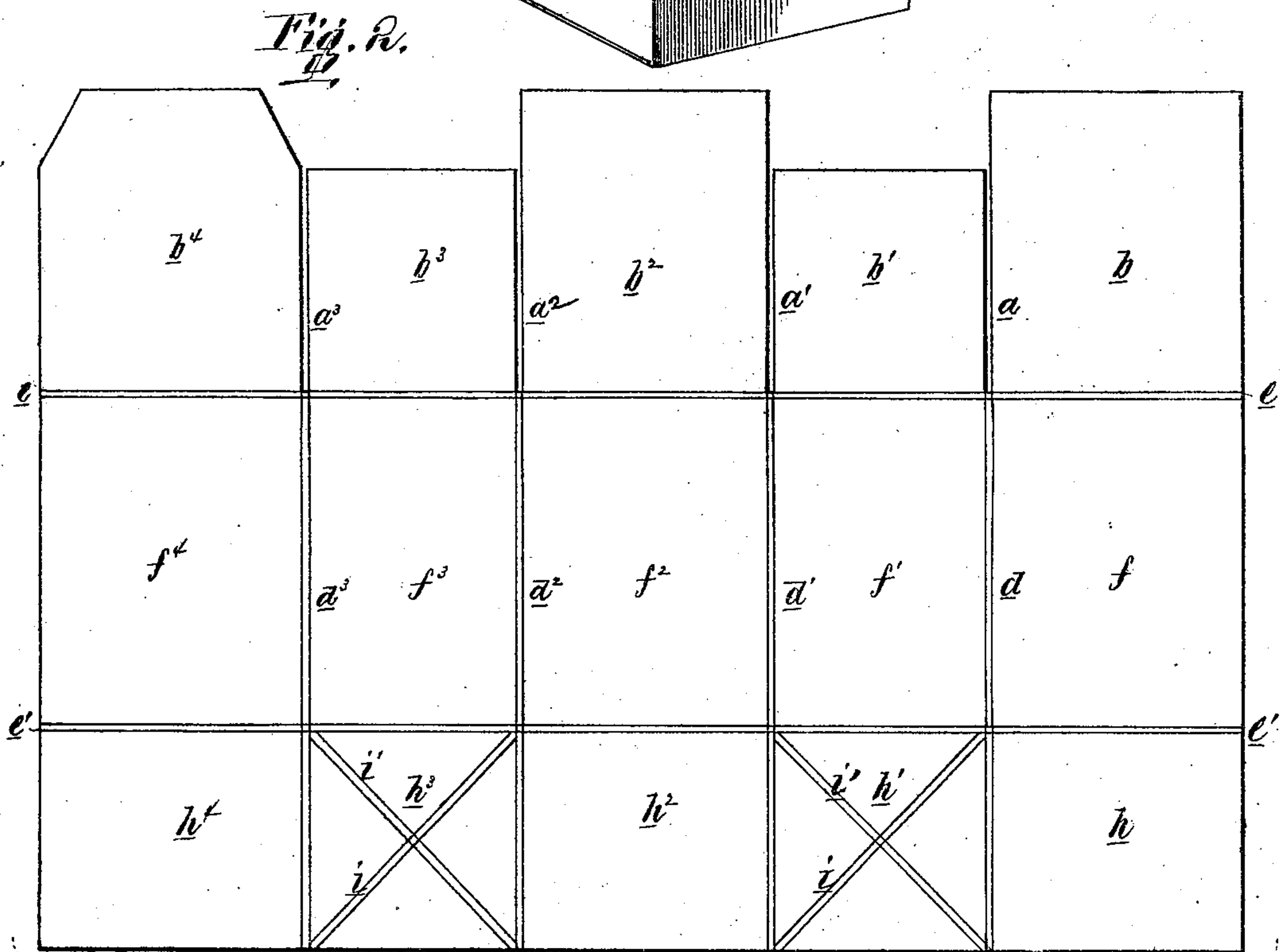
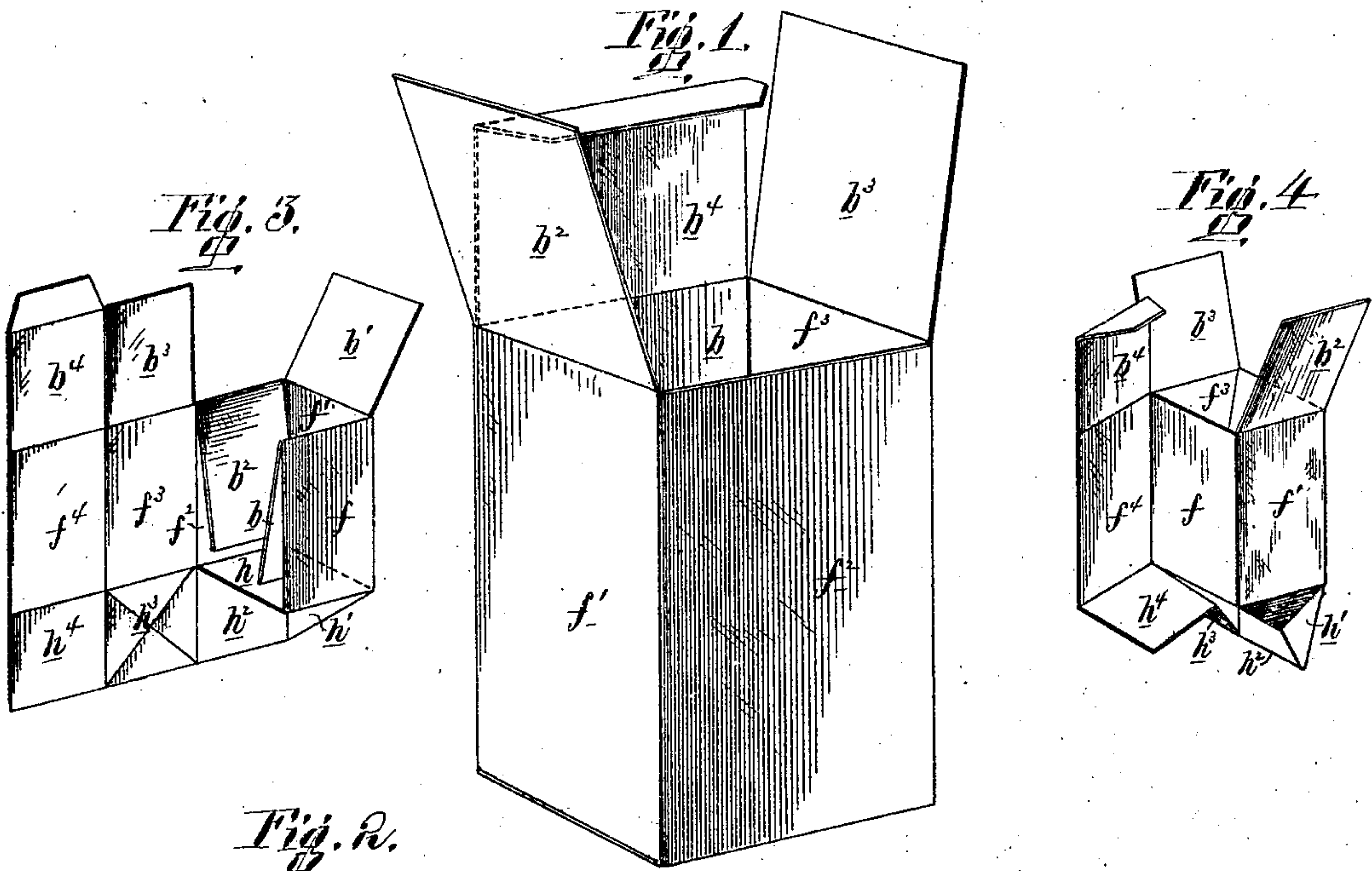


T. H. MUSGROVE & J. A. SMITH.

Paper Boxes.

No. 152,156.

Patented June 16, 1874.



Witnesses, Harry Smith A  
Thomas M. Hoan

Thomas H. Musgrove  
and Jasper A. Smith  
By their Attys  
Howden and Son.



# UNITED STATES PATENT OFFICE.

THOMAS H. MUSGROVE AND JASPER A. SMITH, OF CAMDEN, NEW JERSEY.

## IMPROVEMENT IN PAPER BOXES.

Specification forming part of Letters Patent No. **152,156**, dated June 16, 1874; application filed May 14, 1873.

*To all whom it may concern :*

Be it known that we, THOMAS H. MUSGROVE and JASPER A. SMITH, both of the city and county of Camden, State of New Jersey, have invented an Improved Paper Box, of which the following is a specification :

The object of our invention is to form a rectangular paper box, of the character shown in the perspective view, Figure 1, of the accompanying drawing, from a single strip of paper, cut, creased, folded, and united so as to insure strength and permanency, the manner of constructing the box being illustrated in Figs. 2, 3, and 4.

The oblong strip A, Fig. 2, is cut from a sheet of manila or other strong and stiff paper, and simultaneously with the cutting-out operation the strip is severed transversely to the extent of nearly one-third of its width on parallel lines  $a$ ,  $a^1$ ,  $a^2$ , and  $a^3$ , so as to form sections  $b$ ,  $b^1$ ,  $b^2$ ,  $b^3$ , and  $b^4$ , the latter of which is beveled at the corners, while the sections  $b^1$  and  $b^3$  are shorter than the remaining sections. The strip is also creased transversely on parallel lines  $d$ ,  $d^1$ ,  $d^2$ , and  $d^3$ , which form continuations of the cuts  $a$ ,  $a^1$ , &c., and these transverse creases are crossed at right angles by two longitudinal creases,  $e$  and  $e^1$ , the strip being thus marked out into additional sections  $f$ ,  $f^1$ ,  $f^2$ ,  $f^3$ , and  $f^4$ , and  $h$ ,  $h^1$ ,  $h^2$ ,  $h^3$ , and  $h^4$ . The intermediate sections  $h^1$  and  $h^3$  of the lower row are each crossed by two diagonal creases,  $i$   $i'$ , for a purpose which will be rendered apparent hereafter. In proceeding to construct the box from the strip thus cut and creased, the sections or flaps  $b$  and  $b^2$  are first folded over onto the sections  $f$  and  $f^2$ , and, if desired, are pasted to the same. The section  $f$  is next folded to a position at right angles to the sections  $f^1$ , which will cause one-half of the section  $h^1$  to be folded, on the diagonal crease  $i'$ , onto the remaining half of the same section to which it is pasted, and the section  $h$  will also be turned upward, and folded on the creases  $e'$  and  $d$  until it assumes a position at right angles to the sections  $f$  and  $f^1$ . The next fold on the crease  $d^1$  will turn the section  $f^1$  to a position at right angles to the sections  $f$  and  $f^2$ , as shown in Fig. 3. Three sides of

the box and a portion of the bottom are now completed, and the next fold on the crease  $d^2$  will form the fourth side of the box by the sections  $f^3$ , as shown in Fig. 4, and a further folding on the crease  $d^3$  will turn in the section  $f^4$  upon the section  $f$  to which it is pasted. The folding of the section  $f^4$  will also have the effect of folding the section  $h^4$  against the section  $h$ , and of folding one portion of the section  $h^3$  against the other portion in the crease  $i'$ . This having been accomplished, the bottom of the box is completed by folding the section  $h^2$  against the section  $h^4$ , and by pasting it to the same, the sections  $h^1$  and  $h^3$  being also folded a second time on the creases  $i$   $i'$ , and occupying a position between the sections  $h^2$  and  $h^4$ , so that the bottom of the box is composed of three, and in some places of seven, thicknesses of paper, thus adding considerably to the strength of the box. The sides  $f$  and  $f^2$  of the box are re-enforced by the sections  $b$ ,  $f^4$ , and  $b^2$ , as above described, and the remaining sides  $f^1$  and  $f^3$  may also be re-enforced, if desired, by folding in and pasting the flaps  $b^1$  and  $b^3$  against the same, but these latter flaps are, preferably, used, in connection with the flap  $b^4$ , as a cover for the contents of the box.

We wish to be understood that we do not desire to claim, broadly, a box formed from a single strip of paper; but

We claim as our invention, and as a new article of manufacture—

A box consisting of the sheet A creased to form the body sections  $f$  to  $f^4$ , bottom sections  $h$  to  $h^4$  cut and creased to form the top and re-enforcing flaps  $b$  to  $b^4$ , and folded to form the rectangular box, closed at the bottom and provided with flaps for closing the top, all as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

THOS. H. MUSGROVE.  
JASPER A. SMITH.

Witnesses:

WM. A. STEEL,  
HARRY SMITH.