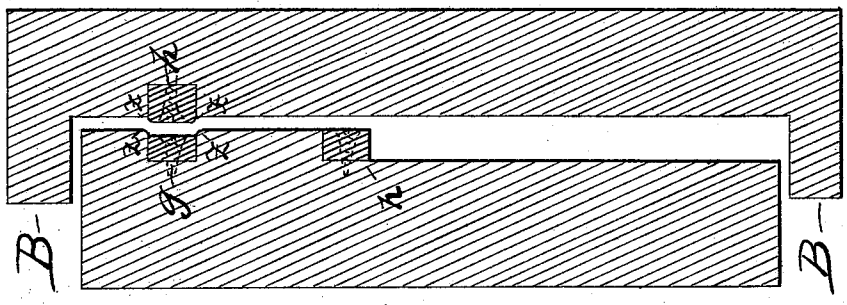
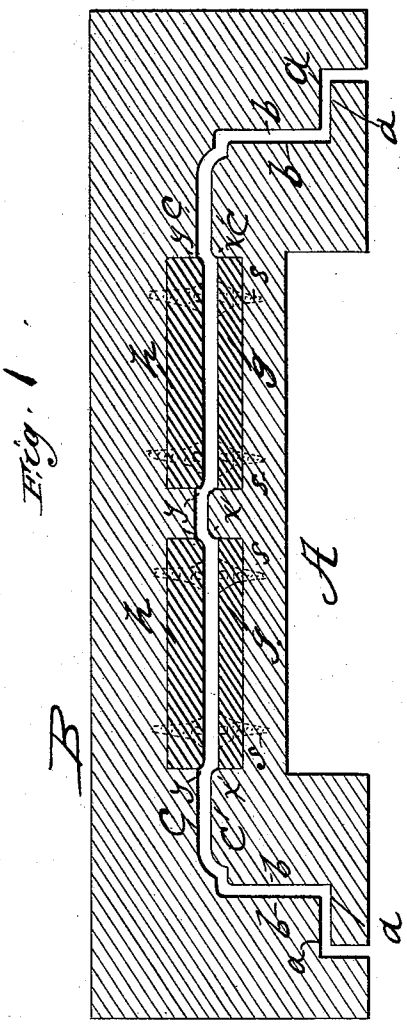
(No Model.) 2 Sheets—Sheet 1.

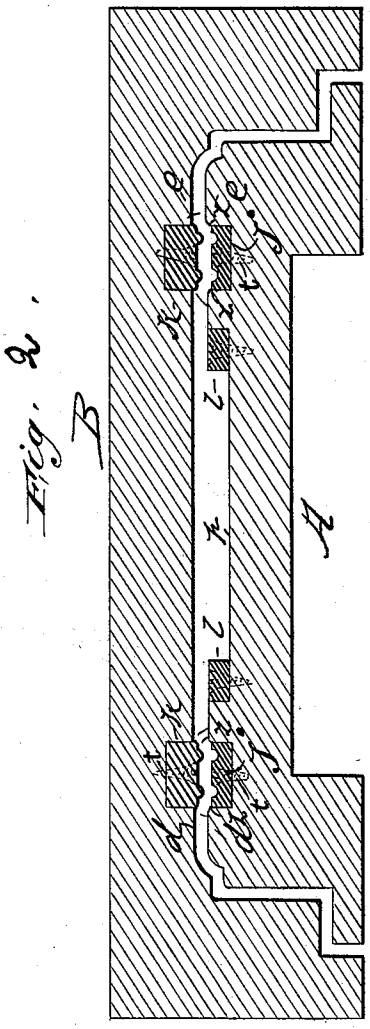
J. GRAVES.

DIE FOR SHEET METAL MANTELS.

No. 539,896. Patented May 28, 1895.







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(No Model.) 2 Sheets—Sheet 2.

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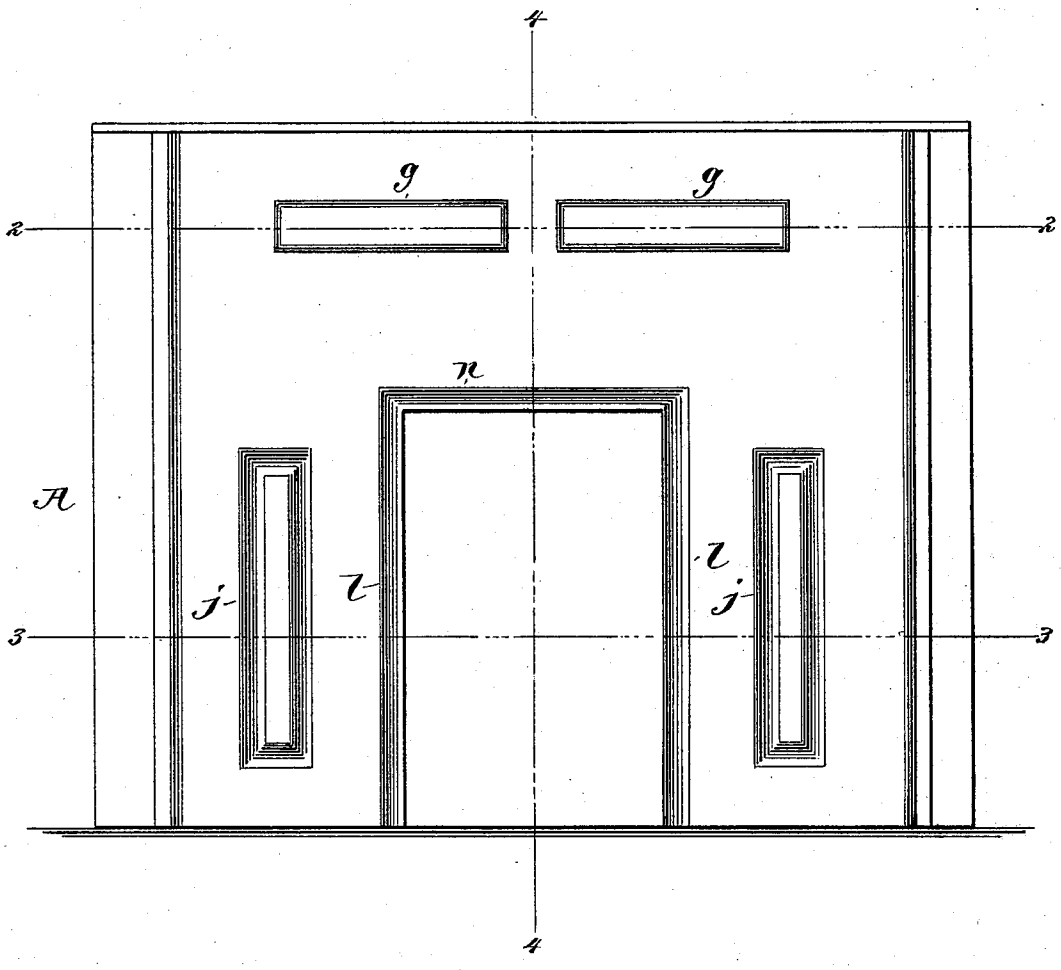
Fig. 4.



WITNESSES:
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Bernard J. Decker.

INVENTOR
John Graves
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UNITED STATES PATENT OFFICE.

JOHN GRAVES, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF AND LOUIS MONJO, OF SAME PLACE.

DIE FOR SHEET-METAL MANTELS.

SPECIFICATION forming part of Letters Patent No. 539,896, dated May 28, 1895.

Application filed May 18, 1894. Serial No. 511,658. (No model.)

To all whom it may concern:

Be it known that I, JOHN GRAVES, a citizen of the United States, and a resident of Brooklyn, in the county of Kings, State of New York, have invented a certain new and useful Improvement in Dies for Sheet-Metal Mantels, of which the following is a specification.

My invention relates to improvements in dies for sheet metal mantels, and it especially consists in providing the dies with interchangeable parts, whereby different designs can be produced by means of the same die, by merely changing the certain parts thereof.

Heretofore the dies for stamping sheet metal mantels have been made substantially solid in all parts and unchangeable, so that as many dies have been required as there are designs of mantels; but as the dies are quite expensive, a plant for producing various designs of mantels has required a large outlay of money, and the interest on the plant and the wear and tear thereof have been equivalent to a considerable increase in the cost of the mantel. I have however invented dies with interchangeable parts, which parts are adapted to be readily inserted in the body of the die, and removed therefrom, the insertion or removal of such a part resulting in producing different designs; also such a part having one style of ornamentation can be removed and another part, with a different style of ornamentation, can be substituted. With such dies a great variety of mantels can be produced, with a comparatively small and cheap plant, and the cost of making the mantels is correspondingly reduced.

Referring to the drawings which accompany the specification to aid the description, Figure 1 is a longitudinal section of the male and female members of a die, taken through the parts thereof which produce the frieze of the mantel. Fig. 2 is a longitudinal section of the same, but taken through the parts thereof which form the pilasters. Fig. 3 is a vertical section of the same, taken through one of the panels of the frieze. Fig. 4 is a plan view of the male die.

A is the male and B the female die.

Referring to Fig. 1, *a a* produce the wall plate of the mantel, *b b* profiles, and *c c* the frieze.

Referring to Fig. 2, *d d* and *e e* produce the pilasters.

Now the frieze of a mantel usually contains panels, and a mantel which has the said panels raised presents a very different appearance from one in which the said panels are sunk. I arrange my die to produce both styles of design with little change in the die, by providing panels *g g*, *h h* respectively in the male and the female dies. Said panels *g g*, *h h* are each nicely fitted into recesses in their corresponding dies A, B, and may be secured therein by screws *s* as indicated. In the arrangement shown in Fig. 1, said panels *g g* are a little lower than the general surface of the die A, and said panels *h h* are a little higher than the general surface of the die B, and thus arranged said dies A, B, will produce a mantel having sunken panels in the frieze. To produce a mantel with raised panels in the frieze, the aforesaid panels *g g*, *h h* will be respectively transferred to the dies B and A. Evidently the working surfaces of said panels *g g*, *h h* can have various ornamentations thereon such as flutings. Then, by placing other panels, with other arrangements of flutings, in the place of said panels, *g g*, *h h*, the ornamentation of these parts of the mantel will be changed. Moreover if we suppose, for example, that the panels *g g* have grooves and the panels *h h*, beads or ribs corresponding to the grooves, it is evident that a different effect may be given to the ornamentation by simply transferring the panels *g g* to the female die B, and the panels *h h* to the male die A; also by placing in both dies A B panels which are flush therewith a mantel would be produced having a plain frieze without panels.

Referring to Fig. 2, *j j* are vertical panels in the male die A, and *k k* are corresponding panels in the female die B, and which panels together form the ornamentation of the pilasters. Said panels *j j*, *k k* are fitted into corresponding recesses in the dies A, B respectively, and are held therein by screws *t*. When arranged as shown the said panels *j j*, *k k* will produce sunken pilasters. To produce raised pilasters the panels *j j* will be transferred to the die B, and the panels *k k* to the die A.

The vertical panels *l l* (Fig. 2) are intended to produce different styles of facings, and said

panels *l l* are required on only one of the dies at one time. When said panels *l l* are arranged on the depression *p* of the male dies in the manner represented in Fig. 2, a plain facing is produced, and the mantel is termed a Shang-Hai mantel. When said panels *l l* are transferred to corresponding parts of the die B, a mantel having a return and a sunken facing will be produced. It will be understood that the metal of the mantel, which extends between said panels *l l*, (Fig. 2) is usually cut out after the mantel is stamped, and a summer piece inserted in the opening.

The horizontal panel *n* (Fig. 3) corresponds in its function and purpose to the panels *l l* (Fig. 2) and when a "Shang-Hai mantel" is to be made said panel *n* is applied to the male die A as shown. When a mantel with a return and a sunken facing is to be made, said panel *n* is transferred to the corresponding part of the female die B.

I prefer to round off the corners of the recesses in which the several panels are inserted and also the projecting edges of the said panels as illustrated at *x x*, *y y*, *z z* in the drawings, to avoid the liability of breaking the mantel at those points.

Now, having described my improvements, I claim as my invention—

A die for making sheet metal mantels having a compound limiting contour and provided with recesses oppositely arranged and constructed to receive coacting dies adapted to be respectively interchanged, whereby with the same dies shapes of distinctive character may be produced, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 14th day of February, 1894.

JOHN GRAVES.

Witnesses:
BERNARD J. ISECKE,
DAVID WALTER BROWN.