F. P. WILLIAMS.

METAL DESK.

APPLICATION FILED MAY 10, 1920.

1,392,998. Patented Oct. 11, 1921.

3 SHEETS—SHEET 1.

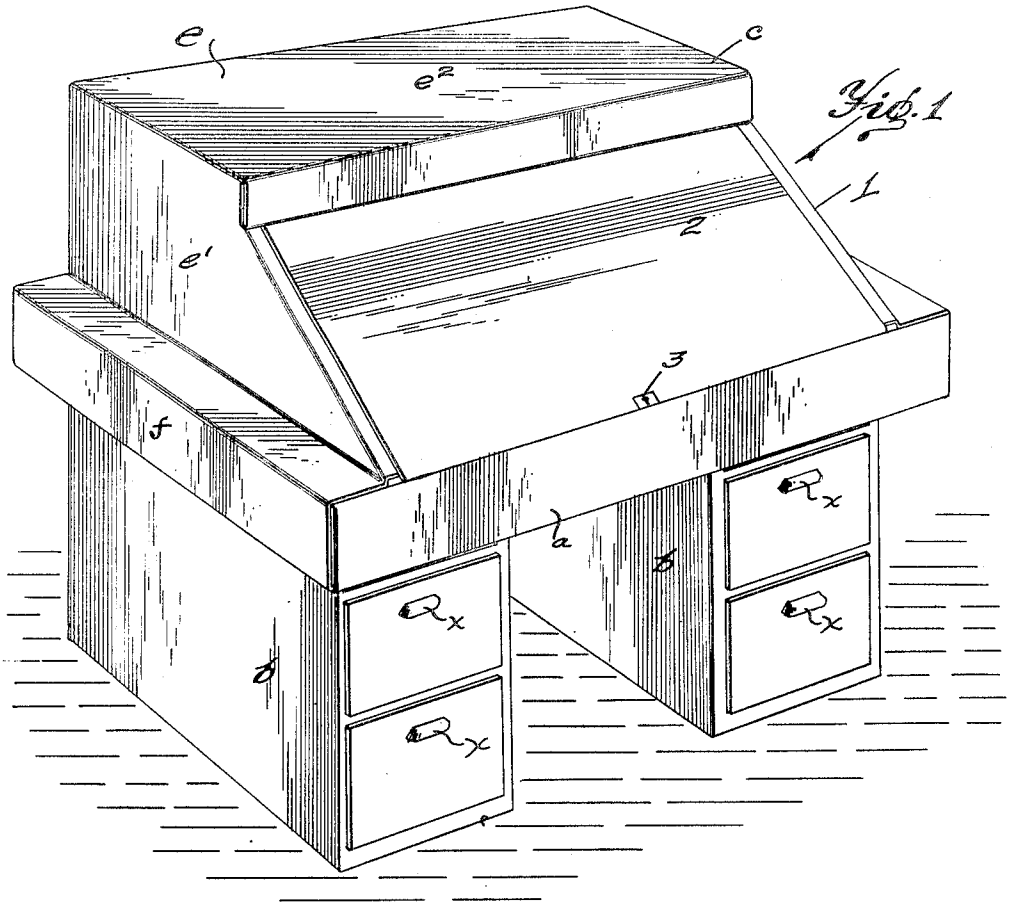


Fig. 1

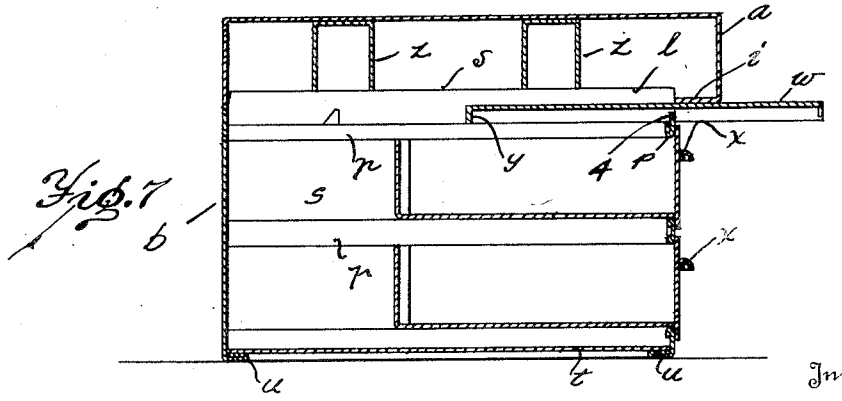


Fig. 7

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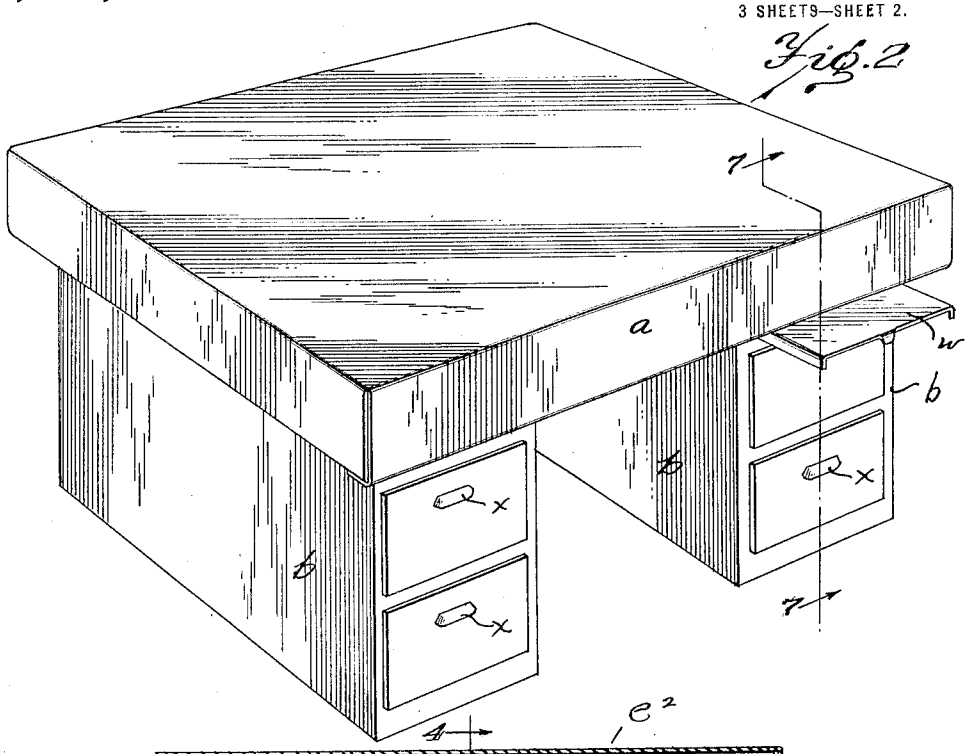
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3 SHEETS—SHEET 2.

Fig. 2



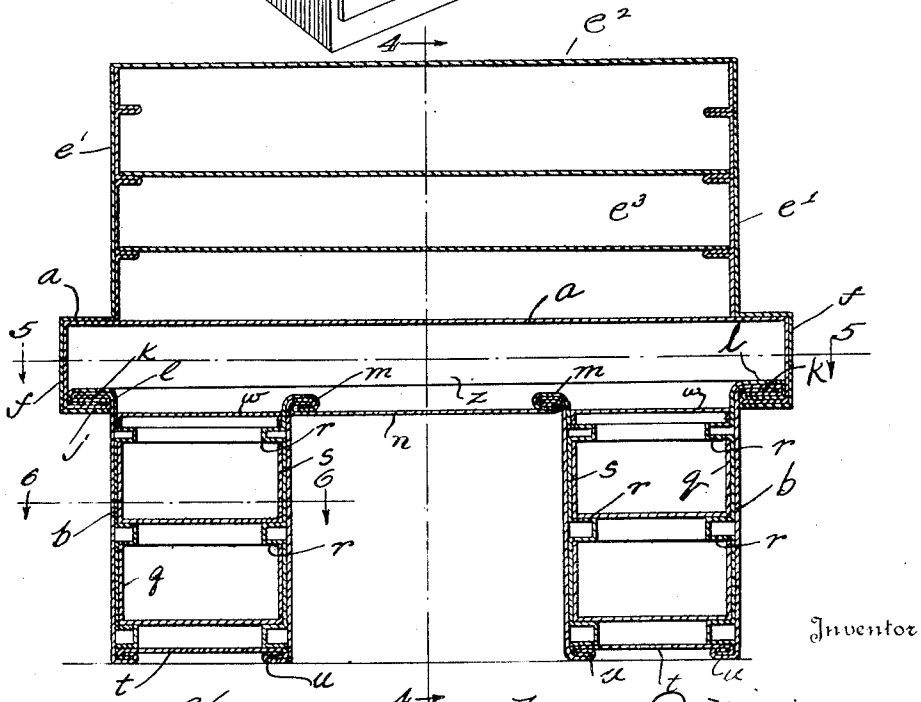


Fig. 3

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3 SHEETS—SHEET 3.

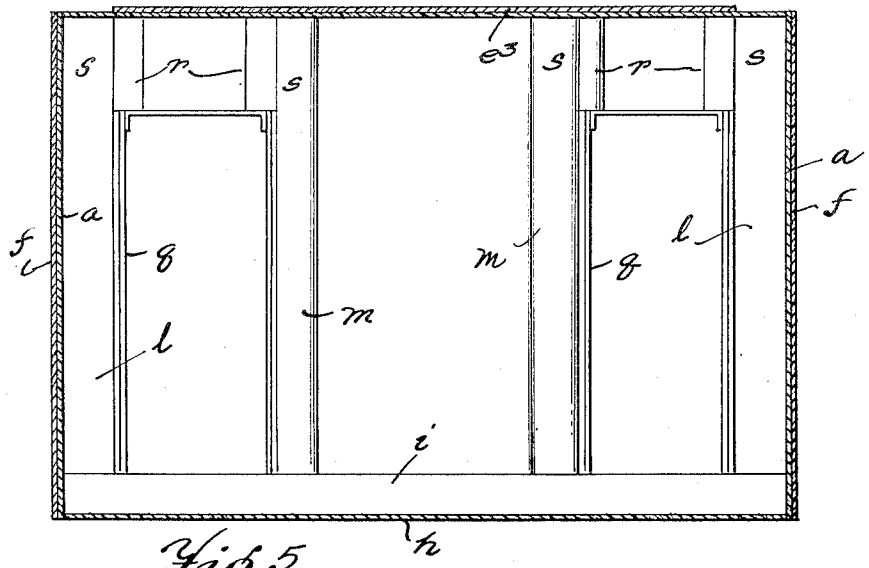


Fig. 5

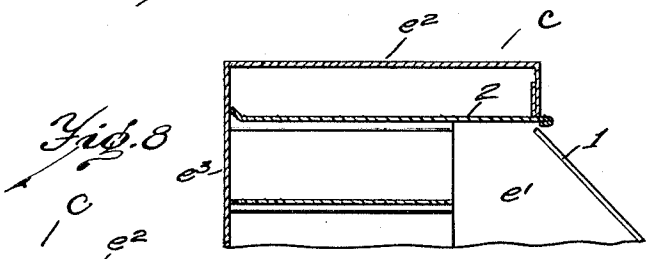


Fig. 8

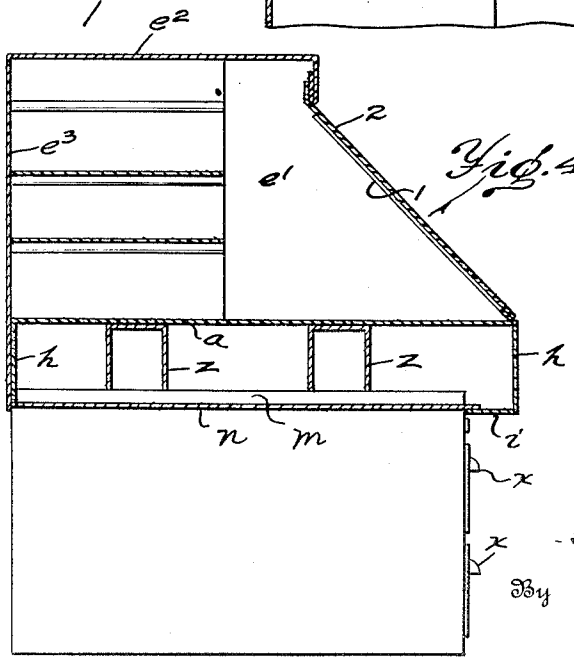


Fig. 4

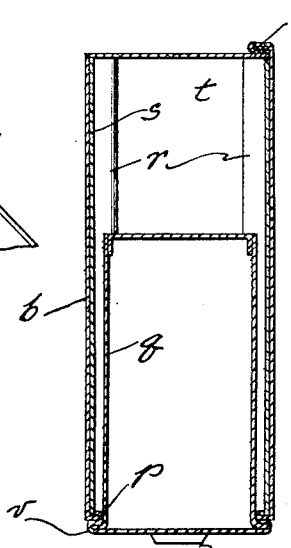


Fig. 6

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UNITED STATES PATENT OFFICE.

FRANK P. WILLIAMS, OF DETROIT, MICHIGAN, ASSIGNOR TO E. E. GUDKA MFG. CO., OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

METAL DESK.

1,392,998. Specification of Letters Patent. Patented Oct. 11, 1921.

Application filed May 10, 1920. Serial No. 380,206.

To all whom it may concern:

Be it known that I, FRANK P. WILLIAMS, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Metal Desks, of which the following is a specification.

This invention relates to metal desks and has for its object a metal desk which is made up of sheet metal parts which can be easily assembled together without fasteners. Another object of the invention is a convertible desk which may be converted from a roll top type of desk to a flat top desk. These and other objects will best appear after the description following.

In the drawings,—

Figure 1 is a perspective of the desk with the upper part attached.

Fig. 2 is a perspective of the desk converted into a flat top desk.

Fig. 3 is a vertical longitudinal section of the desk shown in Fig. 1.

Fig. 4 is a section on the line 4—4 of Fig. 3.

Fig. 5 is a section on the line 5—5 of Fig. 3.

Fig. 6 is a longitudinal section on the line 6—6 of Fig. 3.

Fig. 7 is a section on the line 7—7 of Fig. 2.

Fig. 8 is a detailed section through a portion of the upper part of the desk.

The desk is made up of a bed *a* with reinforcing channels *z* supported upon a pair of drawer cabinets *b*, *b*. An upper cabinet unit *c* is supported upon the bed. This upper cabinet unit is made of a single sheet of metal *e* which forms the back e^3, the sides e^1 and top e^2 of the unit and has a continuation of the side forming an offset channel *f* at each side adapted to engage over the offset portions of the bed *a* so that the top unit may be slid off around the bed to convert the desk from a upper cabinet desk to a flat top desk when desirable. The bed *a* is made of a single piece of material which is properly slitted at the corners to allow flanges at the back, sides and front. These flanges are designated *h*. The front flanges are offset from the cabinets *b* as are also the side flanges and a continuation *i* of the flange *h* forms the bottom for the offset portion. Continuations of the side flanges are designated *j* and these are provided with a turned-over fold *k* to form a sliding lock seam with the turned-over fold *l* of the cabinet *b*. Hence these cabinets may be removably slid into place from back to front with respect to the bed. A similar fold on the opposite side of the cabinet designated *m* permits the web *n* with the folded edges to be slid and locked into the folds *m* of the two cabinets to connect them together at the center.

These cabinets have their side walls all constructed of a single piece folded around as shown in Fig. 6 and locked together at one corner by the lock seam *o*. At the front beads *p* are turned in where the drawer slots are provided to make a smooth opening. The drawers *q* are slidable through these openings and onto the drawer guides *r* formed by the corrugations in the metal strips *s* which are at the top folded into the lock seam in connection with the cabinet metal and are thereby anchored in place. The bottom of the cabinet *t* is folded into lock seam relation with the sides, forming a lock seam *u*. The drawers are constructed of two pieces of material, one folded up at the sides and end to form the two side walls and the rear end wall, while the second piece of metal is folded over at the sides as shown at *v* to engage the turned-out front ends of the side walls and form the front of the drawer and also a flange to prevent the drawer from going in beyond the proper limit. The handles *x* may be soldered on or they may be struck out of the material of the front of the drawer. *w* designates a slide or elbow rest made out of a single piece turned down at the sides and back, the back turned-down flange *y* serving with the up-standing lip 4 to form a stop to prevent the elbow rest from being pulled out from the drawer.

The metal piece *e* which forms the upper cabinet unit is turned over to form the inclined flanges *l* in front upon which is adapted to rest, when pulled down, the sliding lid 2. This may be provided with a special lock 3 to lock the same to the bed.

From the above description it will be seen that a completely convertible metal desk is afforded made wholly out of sheet metal without any fastening means whatsoever, the fastening and assembling of parts being secured wholly by lock seams and sliding engagements. It is obvious that the

desk has all the advantages of a metal desk such as being fire-proof, not easy to mar, light, etc. Furthermore, being constructed in the manner indicated, same can be more cheaply manufactured than a wooden desk.

What I claim is:

1. A metal desk, comprising a pair of supports, a bed supported thereon projecting at the sides, and an upper cabinet unit having offset channel portions adapted to engage the projecting bed in sliding relation so that the upper cabinet unit may be slid off from the bed to convert the desk from a roll top into a flat top desk, or vice versa.

2. In a metal desk, an upper cabinet unit comprising a single piece of metal bent to form the top, sides and back of the upper portion of the desk and vertical sheets of metal provided with inwardly projecting folds and engaging against the inside of the side walls of the said single piece of metal.

3. In a metal desk, a bed provided with projecting side portions, an upper cabinet unit comprising a single piece of metal bent to form the sides, top and back, and offset channels adapted to slidingly engage the projecting side portions of the bed.

4. In a metal desk, an upper cabinet unit comprising a single piece of metal bent to form the top, sides and back, inclined front portions, and a single piece of metal forming a lid slidable along said inclined front portions into or out of position of substantial parallelism with the top of the unit.

5. In a desk, a cabinet of drawers comprising a single piece of metal bent to form the four side walls, the front of which is provided with drawer openings, and second sheet of metal forming the base of the cabinet secured to the side walls by lock seaming.

6. In a metal desk, a drawer cabinet comprising a single sheet of metal bent to form the four side walls and lock-seamed together at one point and provided at the front with drawer openings, and a second sheet of metal to form the bottom lock-seamed into the side walls.

7. In a metal desk, a drawer cabinet comprising a single sheet of metal bent to form four side walls and provided with drawer openings in the front cut out and having their edges beaded in, and a sheet of metal to form the base lock-seamed into the side walls.

8. In a sheet metal desk, a single sheet of metal bent to form the four walls and provided with upward folded side extensions that form portions of a lock seam, and a sheet metal bed provided with turned-over folded portions at the bottom to form the other portion of the lock seam by which the drawer cabinet may be assembled removably upon the bed by sliding the lock seam parts together.

9. In a sheet metal desk, a pair of drawer cabinets, each provided with sheet metal side walls provided with up-turned extensions folded over to form portions of a lock seam arranged to receive the other portion of the lock seam by a sliding assembly.

10. A sheet metal desk, having in combination, a bed provided with turned-down and folded-over flanges forming portions of a sliding lock seam at the sides of the bed, a cabinet provided with folded-over portions engaging in sliding relation with the folded-over portions of the cabinet at the outer sides of the cabinet, and a connecting web with turned-over portions adapted to engage slidingly with the two adjacent inside upwardly-extending turned-over portions of the cabinets.

11. In a sheet metal desk, the combination of a cabinet provided with side walls having upwardly-extending folded-over portions forming parts of lock-seamed slides, and corrugated strips forming drawer guides having upwardly-extending folded-over portions that anchor into the lock seam portions of the sheet metal that forms the side walls of the cabinet.

12. In a sheet metal desk, the combination of sheet metal forming a drawer cabinet provided with a narrow slot in front and an elbow rest formed solely of a piece of sheet metal turned over at the sides and back to form guiding flanges and a stop flange.

13. A sheet metal desk, having in combination, a plurality of drawer cabinets having folded-over portions at the top and a connecting web between the cabinets having turned-over portions adapted to engage slidingly with the two adjacent folded-over portions of the cabinet to assemble the same together.

14. A sheet metal desk, having in combination, a pair of drawer cabinets provided with folded-over portions forming part of a lock seam at the top thereof and a connecting web with turned-over portions forming the other part of the lock seam adapted to slidingly engage with the folded-over portions of the cabinets to assemble the same together.

In testimony whereof I affix my signature.

FRANK P. WILLIAMS.