

April 29, 1924.

H. S. BRUCKSHAW ET AL

1,491,786

SAFE

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3 Sheets-Sheet 1

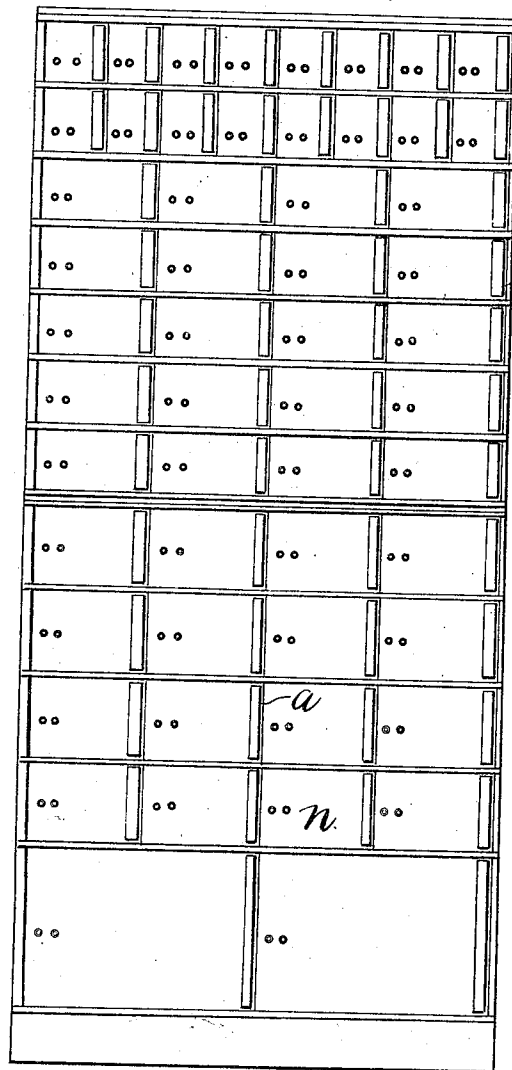


FIG. 1

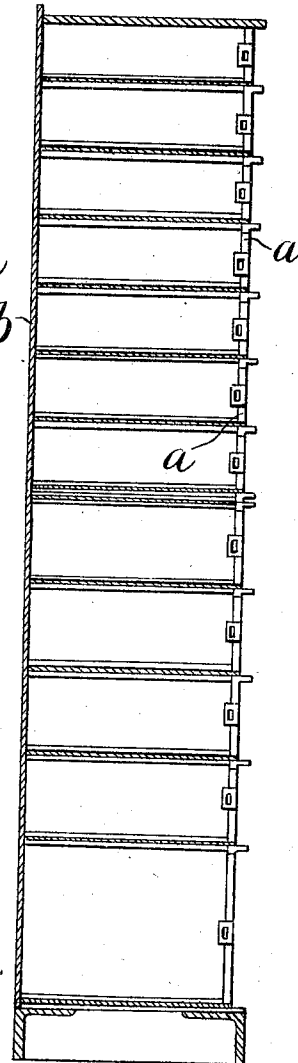


FIG. 2

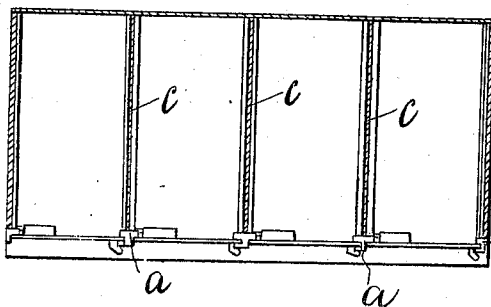


FIG. 3

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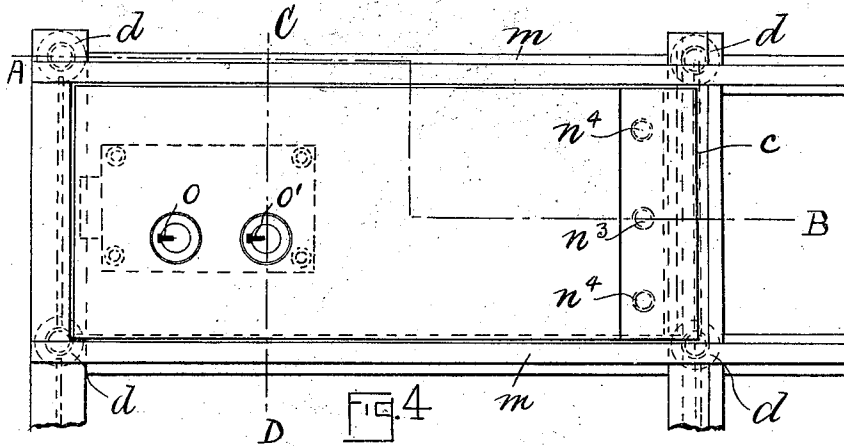
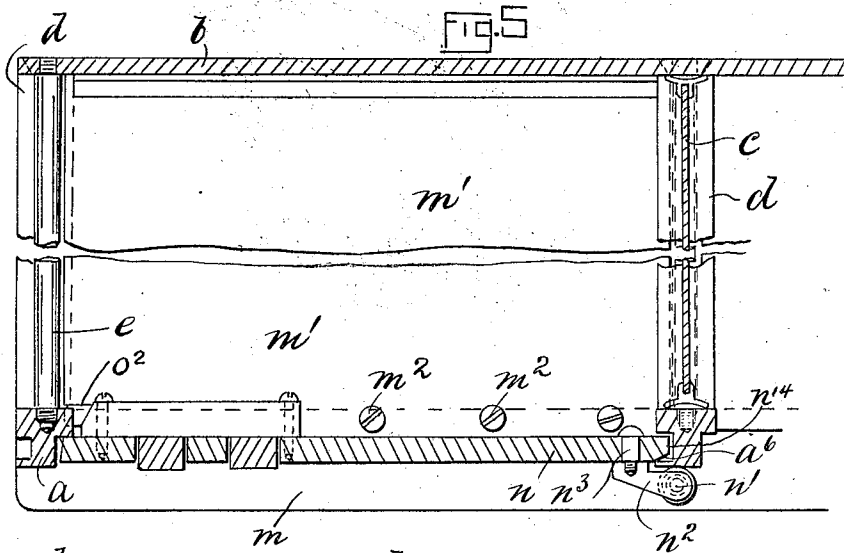
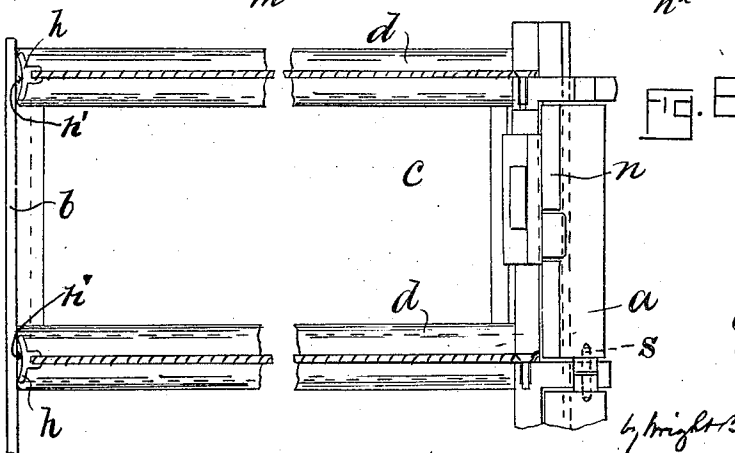
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3 Sheets-Sheet 2



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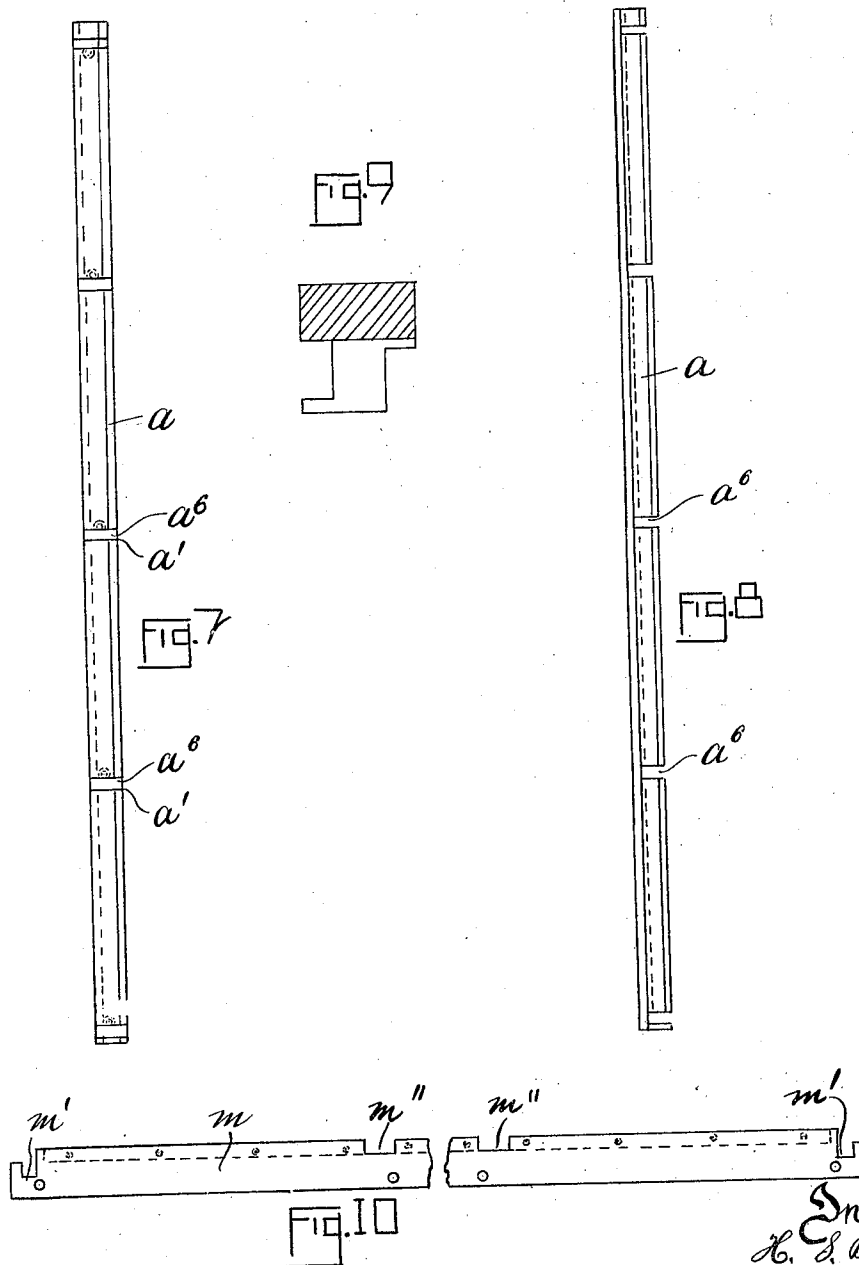
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3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE.

HERBERT STANLEY BRUCKSHAW, OF BOLTON, AND HARVEY CLAYTON, OF MANCHESTER, ENGLAND, ASSIGNORS TO CHATWOOD SAFE COMPANY LIMITED, OF BOLTON, LANCASTER, ENGLAND.

SAFE.

Application filed February 7, 1922. Serial No. 534,752.

To all whom it may concern:

Be it known that we, HERBERT STANLEY BRUCKSHAW and HARVEY CLAYTON, subjects of the King of Great Britain, and residents, respectively, of 365 Church Road, Smithills, Bolton, in the county of Lancaster, England, and 3 Delinere Street, Higher Openshaw, Manchester, in the same county, have invented a certain new and useful Improvement in Safes, of which the following description, having reference to the accompanying drawings, is a specification.

Our invention relates to improvements in safes, particularly to those which are commonly termed renters' safes, and which consist of a series of safes or boxes having compartments of varied or suitable sizes the whole series being mounted in a strong room or large safe. In many cases these safes are not sufficiently rigid in construction for the purpose for which they are designed, and our present invention consists in an improved construction and arrangement of the different elements of these safes whereby the desired rigidity is obtained while the parts are quickly mounted in position and are readily interchangeable.

In order that our said invention may be readily understood, we have hereunto appended three sheets of drawings illustrative thereof, to which, by figures and letters, reference is made in the following description.

Fig. 1 is a front elevation showing an upper and a lower nest of compartments, forming a renters' safe, constructed in accordance with our invention.

Fig. 2 is a sectional end elevation thereof.

Fig. 3 is a sectional plan thereof.

Fig. 4 is a front elevation of one of the compartments forming part of the lower nest.

Fig. 5 is a sectional plan on line A—B of Fig. 4.

Fig. 6 is a sectional end elevation on line C—D of Fig. 4.

Fig. 7 is an elevation of one of the vertically disposed bars to which certain of the sections forming the compartments are connected.

Fig. 8 is an elevation of the bar shown by Fig. 7 and as seen at right angles thereto.

Fig. 9 is a sectional plan of the bar shown by Figs. 7 and 8.

Fig. 10 is a plan of the dividing plates or the plates to which the bases of the compartments are fixed.

Similar letters and figures of reference indicate like parts throughout the several views.

Figs. 1 and 2 show two nests each provided with a number of compartments. The upper section has two series of small compartments and five series of larger ones and the lower nest has four series similar to the lower series in the upper nest but deeper, and two larger compartments arranged beneath. The upper nest may readily be removed from the lower nest, and in order that they may always occupy their desired positions when mounted one above the other we make use of positioning pins one series taking within openings formed for their reception on the other. The drawings show only one arrangement of compartments but we wish it to be understood that we may arrange any appropriate number of compartments and in any suitable way.

In carrying our invention into effect we make use of a series of upright bars *a* which form the corner pieces of the nest and also form the dividing parts for the series of compartments in a vertical direction, thus as shown in Fig. 1 in the lower nest there are three of such bars *a* of full length and two less in length to form dividing parts for the smaller sections of compartments, while in the upper nest there are five of the full depth of the nest and four for the purpose of serving as the dividing parts for the two upper series of compartments. The back plate *b* serves as the back plate for the whole series of compartments. The compartments each have vertically disposed side parts *c* of an appropriate length these side parts fitting within grooves formed in spacers extending between and secured to the back plate and the uprights *a*. In the particular embodiment of the invention illustrated, each spacer includes a circular sleeve *d* within which fits a rod *e* having its ends screwed, one of which screws takes within a bar *a* and the other within the back plate *b* so that by screwing this rod tightly the bar *a* and back plate *b* are firmly held against the tube *d* thus holding these parts securely in position. The front and rear ends of the side

parts *c* fit within grooves in plates *h* which plates have their surfaces *h*¹ of concave shape so that as the back plate *b* and bars *a* are firmly bound together, these concave surfaces will be slightly compressed to allow the plates *c* to be rigidly held. The vertically disposed bars *a* are provided with grooves *a*⁵ thus leaving ledges upon which rest the dividing plates *m*, these dividing plates having notches *m*¹⁰ to fit around the edges *a*¹ of the vertically disposed bars *a*. Upon said dividing bars *m* are fixed the bases *m*¹ of the compartments by means of screws *m*².

Each door *n* is hinged to its respective horizontal bars *m* at *n*¹, the part forming the hinge having an extending plate *n*² fixed by screws or the like *n*³ to the door *n*. The hinge and plate *n*² extend the full depth of the door and are provided with fixing screws *n*³ centrally thereof, while other pins *n*⁴ extend within openings in the door *n* which allow a slight amount of play for said pins and thus act as positioning pins. The lip *n*¹⁴ on the door *n* extends into a groove *a*⁶ in the vertical member *a*.

Any ordinary lock may be employed in connection with these renter safes, the one illustrated having two keys to be applied to it for entry in the slots *o*, *o*¹. The upright bar *a* adjoining the lock has cut from it a curved portion in order to accommodate the locking bolt *o*².

We connect the several hinges of the doors together by means of pins *s* which extend into both hinges as shown by Fig. 6, thus we obtain a larger bearing surface at these parts, and also prevent damage to said doors by anyone endeavouring to press same out of position.

Such being the nature and object of our said invention, what we claim is:—

1. In a safe of the character described, the combination of a back plate, a plurality of uprights, a plurality of vertically spaced tie rods connecting each upright with the back plate, a sleeve surrounding each tie rod between the back plate and upright, aligned grooves being formed in vertically adjacent sleeves, side plates having their top and bottom edges fitted in said grooves, and horizontal partitions extending rearward from the uprights between said side plates.

2. In a safe of the character described, the combination of a back plate, a plurality of uprights, a plurality of vertically spaced tie rods connecting each upright with the back plate, a sleeve surrounding each tie rod between the back plate and upright, aligned grooves being formed in vertically adjacent sleeves, side plates having their top and bottom edges fitted in said grooves, yielding grooved strips interposed between the vertical edges of the side plates and the back plate and cooperating upright, and

horizontal partitions extending rearward from the uprights between the side plates.

3. In a safe of the character described, the combination of a back plate, a plurality of uprights, horizontal bars engaged with each of the uprights, a plurality of spacers between each upright and the back plate, one adjacent each of the said horizontal bars, and each having vertically diametrically opposite grooves formed therein, side plates arranged between adjacent horizontal bars and having their top and bottom edges fitted in said grooves, bottom plates secured to the horizontal bars and extending rearward between adjacent side plates, and means connecting each upright with the back plate and holding the side plates in position.

4. In a safe of the character described, the combination of a back plate, a plurality of uprights, horizontal bars engaged with each of the uprights, a plurality of spacers between each upright and the back plate, one adjacent each of the said horizontal bars, and each having vertically diametrically opposite grooves formed therein, side plates arranged between adjacent horizontal bars and having their top and bottom edges fitted in said grooves, bottom plates secured to the horizontal bars and extending rearward between adjacent side plates, yielding strips interposed between the vertical edges of the side plates and the back wall and the upright in alignment with each side plate, and means connecting each upright with the back plate and holding the side plates in position.

5. In a safe of the character described, the combination of a back plate, a plurality of uprights, horizontal bars engaged with each of the uprights, a plurality of spacers between each upright and the back plate, one adjacent each of the said horizontal bars, and each having vertically diametrically opposite grooves formed therein, side plates arranged between adjacent horizontal bars and having their top and bottom edges fitted in said grooves, bottom plates secured to the horizontal bars and extending rearward between adjacent side plates, strips interposed between the vertical edges of the side plates and the back plate and aligned upright, said strips each having a groove receiving the edge of the side plate and its opposite face concaved, and means connecting each upright with the back plate and holding the side plates in position.

6. In a safe of the character described, the combination of a back plate, a plurality of uprights, horizontal bars engaged with each of the uprights, a plurality of tubular spacers between the back plate and each upright, one adjacent each of the said horizontal bars, and each having vertically diametrically opposite grooves formed therein, side plates arranged between adjacent horizontal

- bars and having their top and bottom edges fitted in said grooves, bottom plates secured to the horizontal bars and extending rearward between adjacent side plates, yielding strips between the vertical edges of each side plate and the back plate and aligned upright, and rods each connecting upright with the back plate and extending through the tubular spaces.
- 10 7. In a safe of the character described, the combination of a back plate, a plurality of uprights, a plurality of horizontal bottom plates extending rearward from the uprights, a yielding grooved strip between the rear edge of each horizontal plate and the back plate, and means connecting the uprights with the back plate and exerting pressure to maintain the strips receiving the bottom plates in close engagement with the back plate.

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HARVEY CLAYTON.

Witness:
JOHN PHILIP HALL.