Oct. 15, 1963 K. M. ROTHENBORG 3,107,012

SORTING SHELVING

Filed Nov. 17, 1960 2 Sheets-Sheet 1

Fig. 1.

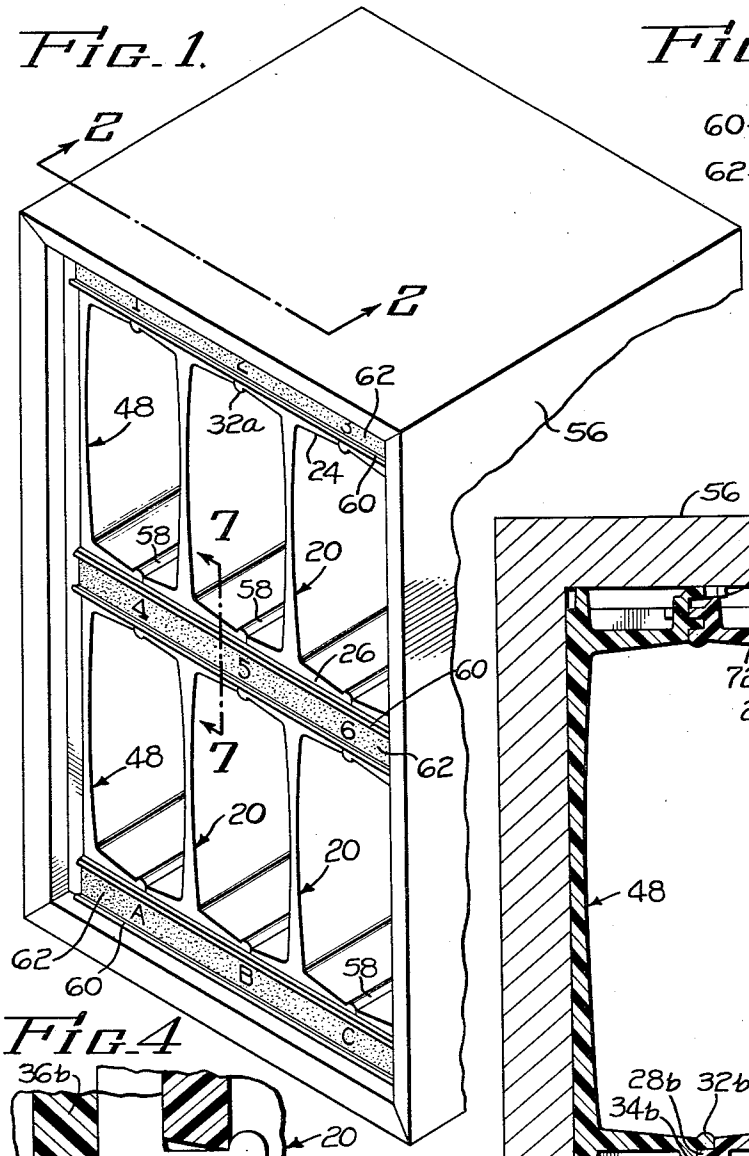


Fig. 3

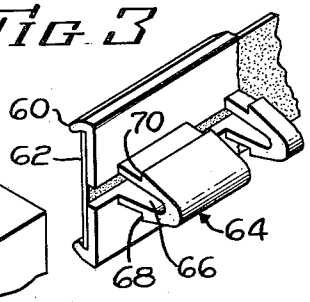


Fig. 2

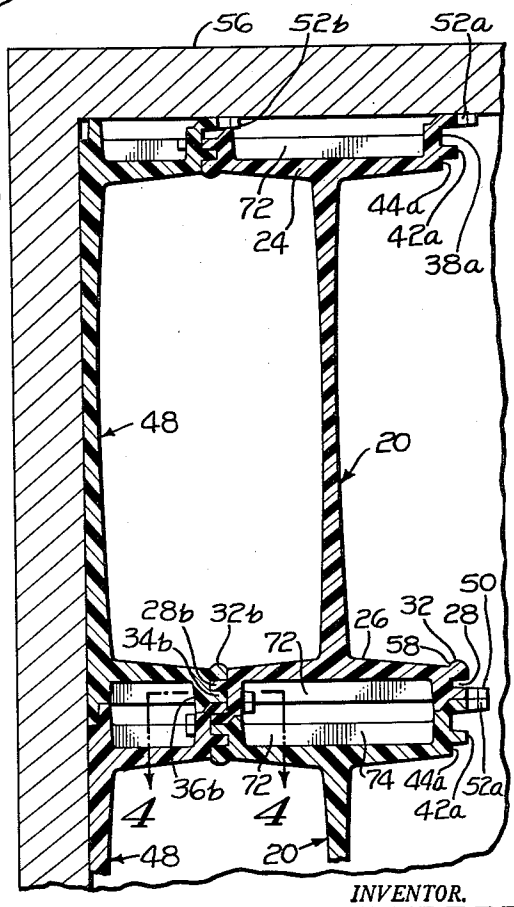
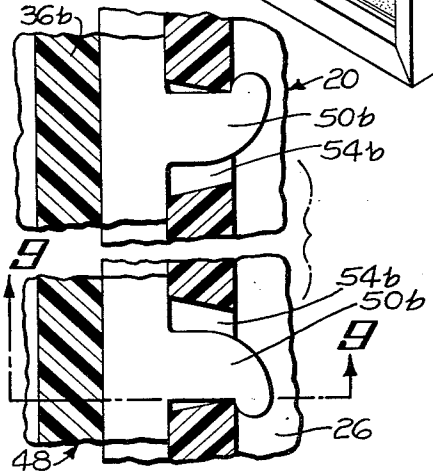


Fig. 4



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FIG. 5

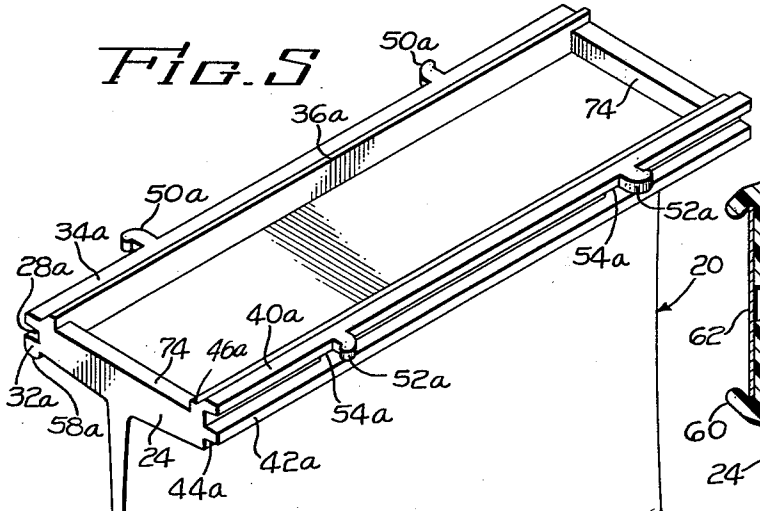


FIG. 7

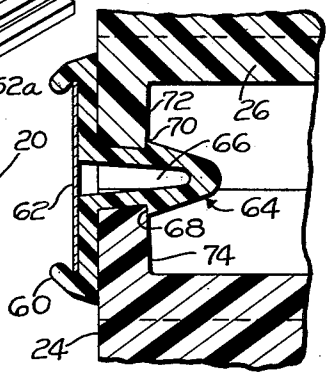


FIG. 6

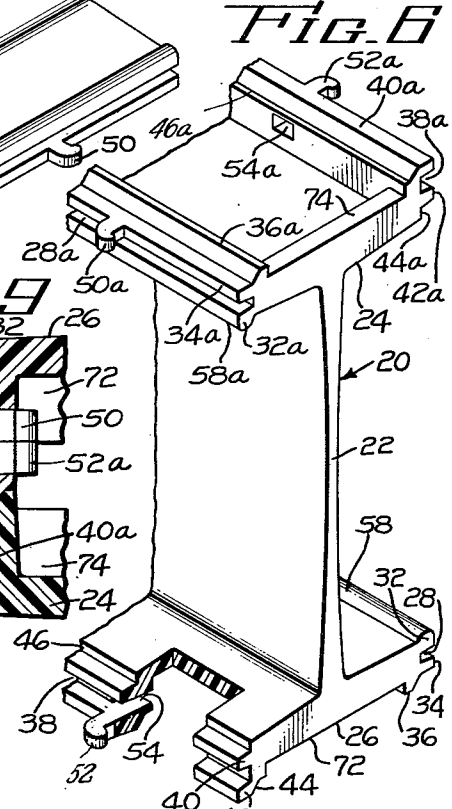


FIG. 9

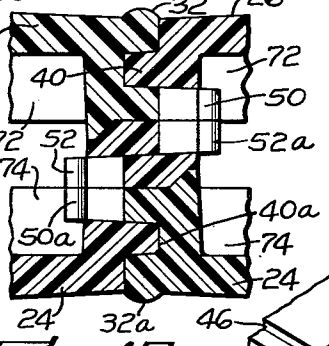


FIG. 8

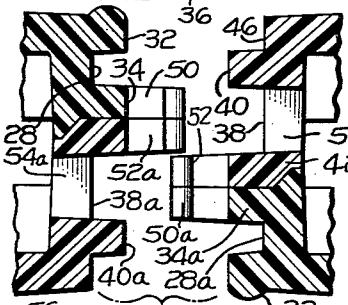
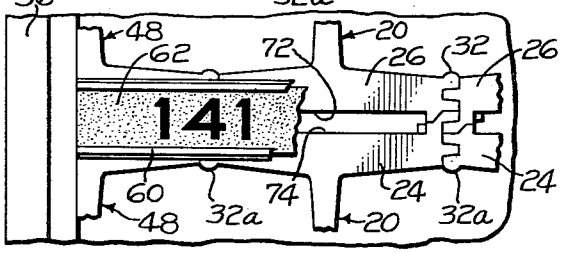


FIG. 10



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SORTING SHELVING

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Filed Nov. 17, 1960, Ser. No. 69,928
9 Claims. (Cl. 211—11)

This invention relates to an improved sorting shelving.

In hotels and similar places it is a common practice to provide a shelving having a compartment for each room into which mail, keys and the like are placed for ultimate distribution.

It is an object of this invention to provide a series of uniform elements which when interconnected form such a shelving.

Still a further object of this invention is to provide such shelving which can readily be expanded either vertically or horizontally as desired.

Other objects and advantages will be readily apparent from the following description.

In the drawings:

FIGURE 1 is a perspective of the device.

FIGURE 2 is an enlarged view taken along line 2—2 of FIGURE 1.

FIGURE 3 is a fragmentary perspective of the identifying insert.

FIGURE 4 is an enlarged view taken along line 4—4 of FIGURE 2.

FIGURE 5 is a perspective of one of the elements.

FIGURE 6 is a fragmentary view similar to FIGURE 5 with parts thereof broken away.

FIGURE 7 is an enlarged view taken along line 7—7 of FIGURE 1.

FIGURE 8 is a fragmentary enlarged section of two elements about to be interconnected.

FIGURE 9 is a view taken along line 9—9 of FIGURE 4.

FIGURE 10 is a fragmentary frontal elevation with a portion of the identifying insert broken away.

The individual elements **20** are generally I-shaped in cross section having a central wall **22** with a leg **24** and **26** at each end thereof. The leg **26** is formed with a longitudinal slot **28** in one side thereof with flanges **32** and **34** on either side of the slot which also extend the full length of the leg.

Projecting from the under surface of leg **26** adjacent the side bearing slot **28** is a flange **36** which also projects the full length of leg **26** for a purpose hereinafter to be described.

The other side of leg **26** has a slot **38** of greater width than slot **28** extending the length thereof with a flange **40** and **42** on either side thereof. The flange **42** projects from the underside of leg **26** and has a step **44** formed therein for a purpose hereinafter described. Likewise flange **40** has a step **46** formed therein.

The upper leg **24** has its sides formed in the same manner as leg **26** in a reversed relationship and like parts are given the same numerical designation with the addition of the exponent "*a*."

To provide the end pieces for the shelving an I-shaped element **20** may be cut down the middle of wall **22** forming a half element **48** having the same slot and flange arrangement on its legs wherein like parts are given the same numerical designation with the addition of the exponent "*b*."

Each flange **34** carries a pair of locking hooks **50** thereon and each flange **40** carries a similar pair of locking hooks **52**. Each slot **38** has an extension **54** which passes through flange **42** to receive one hook **50** and **52***a* from adjacent elements as will hereinafter be more fully described.

In assembling the shelving a cabinet **56** of the desired size and open in the front is constructed to receive the elements. Two elements **20** are interconnected so that the flange **40** of one element will fit within slot **28** of the second element while the flange **34***a* of the first element fits into slot **38***a* of the second element with hook **50***a* projecting through slot extensions **54***a*. In the identical manner a horizontal line of elements of any desired length may be assembled, the interconnection being best illustrated in FIGURES 8 and 9.

A second horizontal line of elements may be positioned above or below the first formed line and interconnected therewith. As seen in FIGURE 2 flange **36** is so formed as to fit the step **46***a* in flange **40***a* while similarly flange **36***a* seats within step **44** in flange **42** and hook **52***a* abuts hook **50** and hook **52** abuts hook **50***a* and project into slot extension **54** and **54***a* respectively.

Each flange **32** and **32***a* is provided with a rounded bead **58** and **58***a* to provide an abutment which will maintain letters and the like upright in the compartments.

To designate the various compartments a strip **60** within which a strip of paper **62**, carrying the hotel room designations, is slidably retained is provided. Projecting from the rear of strip **60** is a series of protuberances **64** which are hollowed as at **66** to permit same to collapse upon insertion between vertically interconnected elements **20** and expand upon full insertion so that flanges **68** and **70** thereon will engage cross-wise flanges **72** and **74** at the extremities of legs **24** and **26** to hold the room designations in place.

While what hereinbefore has been described as the preferred embodiment of this invention, it is readily apparent that alterations and modifications may be resorted to without departing from the scope of this invention and such alterations and modifications are intended to be included within the scope of the appended claims.

I claim:

1. A sorting shelving comprising a plurality of I-shaped elements wherein each side of each leg of each element has a slot extending its full length and a flange on either side of each slot, said slots and flanges being sized to interconnect with a similarly formed element positioned side by side therewith, the slots on diagonally opposite sides of said legs of said elements being enlarged to interconnect with an additional element positioned above or below same, and hook elements formed upon certain of said flanges, and an extension of said enlarged slots receiving said hook elements.

2. A sorting shelving comprising a plurality of I-shaped elements wherein each side of each leg of each element has a slot extending its full length and a flange on either side of each slot, said slots and flanges being sized to interconnect with a similarly formed element positioned side by side therewith, the slots on diagonally opposite sides of said legs of said elements being enlarged to interconnect with an additional element positioned above or below same, and hook elements formed upon certain of said flanges, and an extension of said enlarged slots receiving said hook elements, and a bead formed on the upper or lower sides of said legs forming a support for articles in said shelving.

3. A sorting shelving comprising a plurality of I-shaped elements wherein each side of each leg of each element has a slot extending its full length and a flange on either side of each slot, said slots and flanges being sized to interconnect with a similarly formed element positioned side by side therewith, the slots on diagonally opposite sides of said legs of said elements being enlarged to interconnect with an additional element positioned above or below same, and the outermost flanges upon said legs

being formed to interconnect with a similar element positioned above or below same.

4. A sorting shelving comprising a plurality of I-shaped elements wherein each side of each leg of each element has a slot extending its full length and a flange on either side of each slot, said slots and flanges being sized to interconnect with a similarly formed element positioned side by side therewith, the slots on diagonally opposite sides of said legs of said elements being enlarged to interconnect with an additional element positioned above or below same, and the outermost flanges upon said legs being formed and interconnected with a similar element positioned above or below same, and a designation strip having a protuberance thereon projecting between said last mentioned interconnected flanges.

5. An element for assembly with identical elements for forming a sorting shelving comprising: a central wall, a pair of parallel legs attached to opopsite extremities of said wall and extending along the length thereof, one side of the lower leg having a slot there along with a flange on either side thereof, said side having an additional flange projecting downwardly from said leg, the remaining side of said lower leg having a larger slot there along with a flange on either side thereof and a step formed on the outermost flange, the sides of said upper leg being formed in the identical manner in reversed relationship.

6. An element for assembly with identical elements for forming a sorting shelving comprising: a central wall, a pair of parallel legs attached to opposite extremities of said wall and extending along the length thereof, one side of the lower leg having a slot there along with a flange on either side thereof, said side having an additional flange projecting downwardly from said leg, the remaining side of said lower leg having a larger slot there along with a flange on either side thereof and a step formed on the outermost flange, the sides of said upper leg being formed in the identical manner in reversed relationship, and an inwardly extending extension connecting each larger slot, hooks formed on the outermost flanges at each side of each leg.

7. An element for assembly with identical elements for forming a sorting shelving comprising: a central wall, a pair of parallel legs attached to opopsite extremities of said wall and extending along the length thereof, one side of the lower leg having a slot there along with a flange on either side thereof, said side having an additional flange projecting downwardly from said leg, the remaining side of said lower leg having a larger slot there along with a flange on either side thereof and a step formed on

the outermost flange, the sides of said upper leg being formed in the identical manner in reversed relationship, an inwardly extending extension connecting each larger slot, and hooks formed on the outermost flanges at each side of each leg, and a bead formed on the innermost flange of the first mentioned side of the lower leg.

8. An element for assembly with identical elements for forming a sorting shelving comprising: a central wall, a pair of parallel legs attached to opposite extremities of said wall and extending along the length thereof, one side of the lower leg having a slot there along with a flange on either side thereof, said side having an additional flange projecting downwardly from said leg, the remaining side of said lower leg having a larger slot there along with a flange on either side thereof and a step formed on the outermost flange, the sides of said upper leg being formed in the identical manner in reversed relationship, and an inwardly extending extension connecting each larger slot, hooks formed on the outermost flanges at each side of each leg, and a crosswise flange at each end of each leg.

9. An element for assembly with identical elements for forming a sorting shelving comprising: a central wall, a pair of parallel legs attached to opposite extremities of said wall and extending along the length thereof, one side of the lower leg having a slot there along with a flange on either side thereof, said side having an additional flange projecting downwardly from said leg, the remaining side of said lower leg having a larger slot there along with a flange on either side thereof and a step formed on the outermost flange, the sides of said upper leg being formed in the identical manner in reversed relationship, and an inwardly extending extension connecting each larger slot, hooks formed on the outermost flanges at each side of each leg, and a crosswise flange at each end of each leg, and a bead formed on the innermost flange of the first mentioned side of the lower leg.

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