(No Model.) 3 Sheets—Sheet 1.

S. STRANGE.

MAIL BAG RACK AND DISTRIBUTING TABLE.

No. 406,966. Patented July 16, 1889.

Fig. 1.

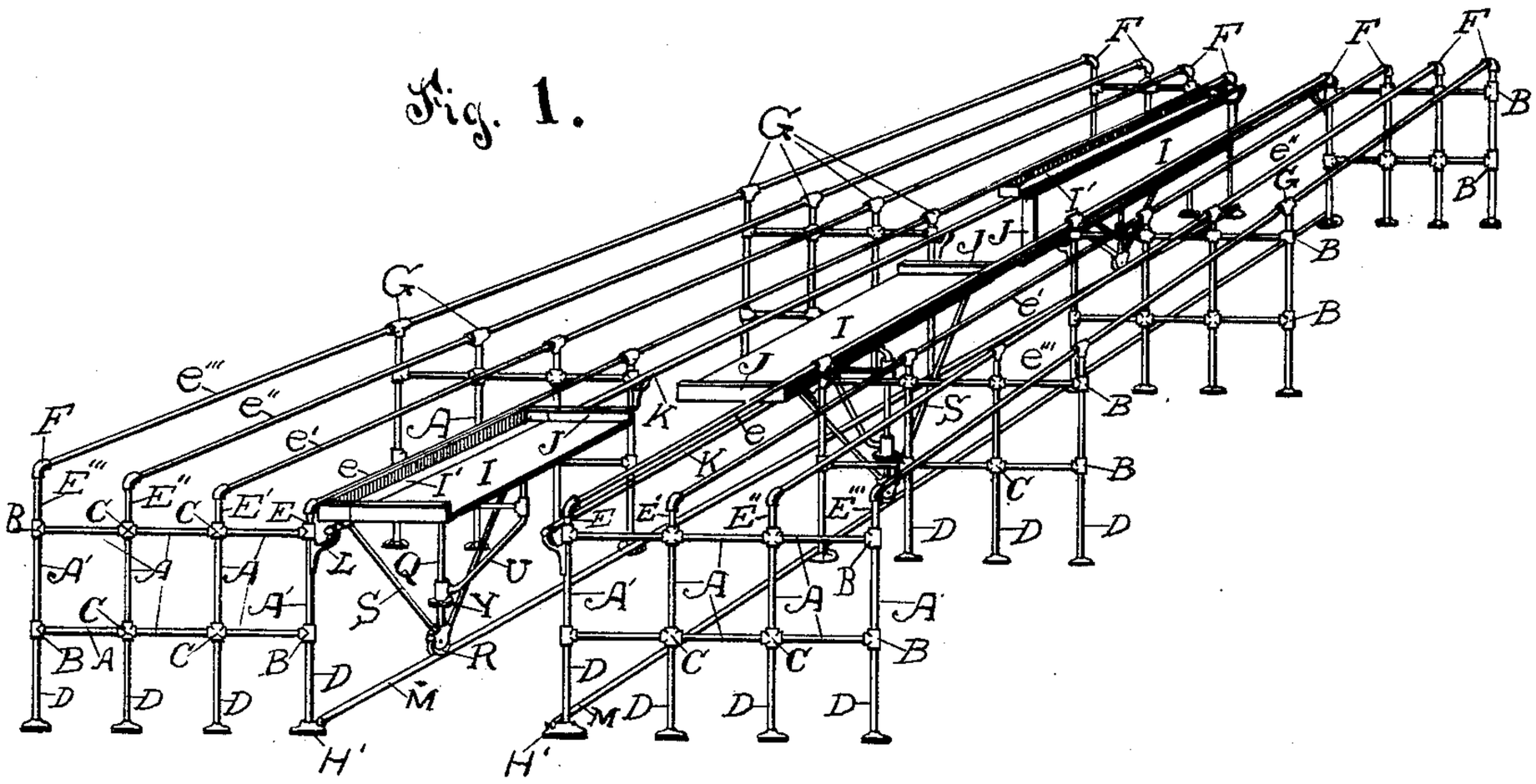


Fig. 2.

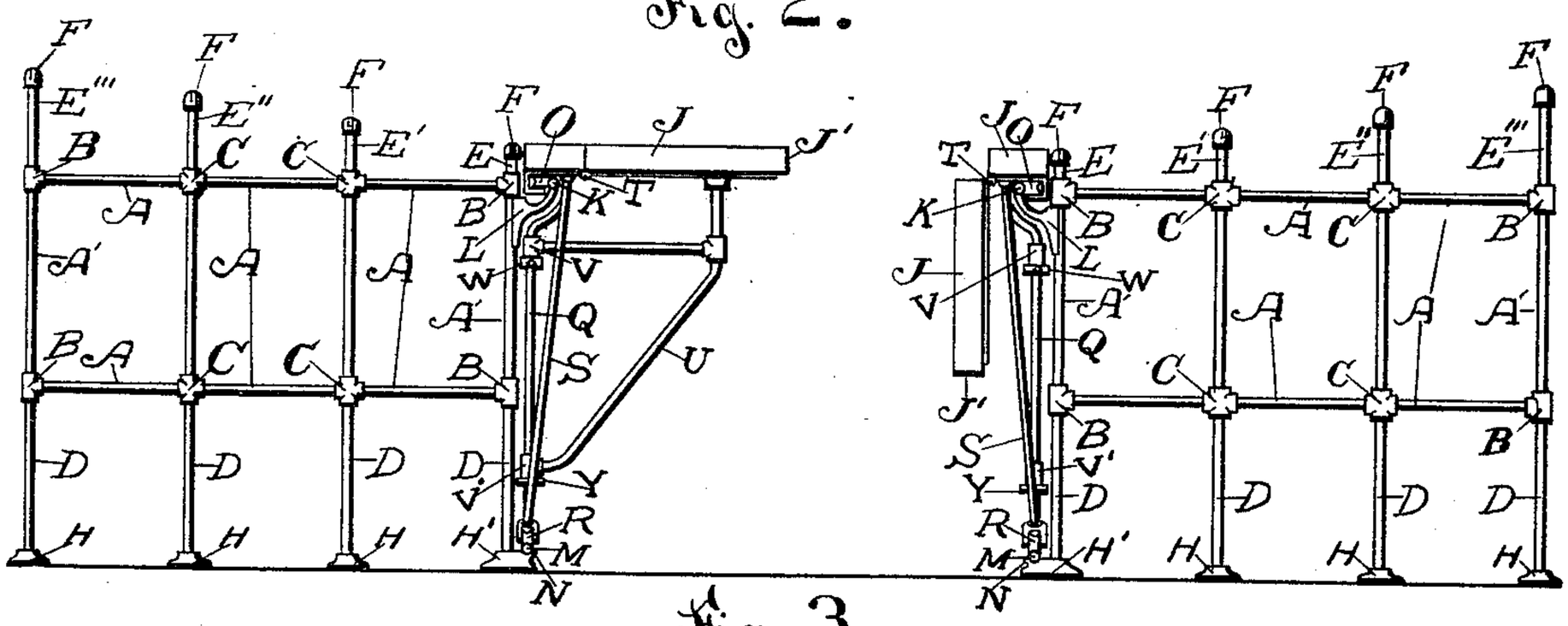
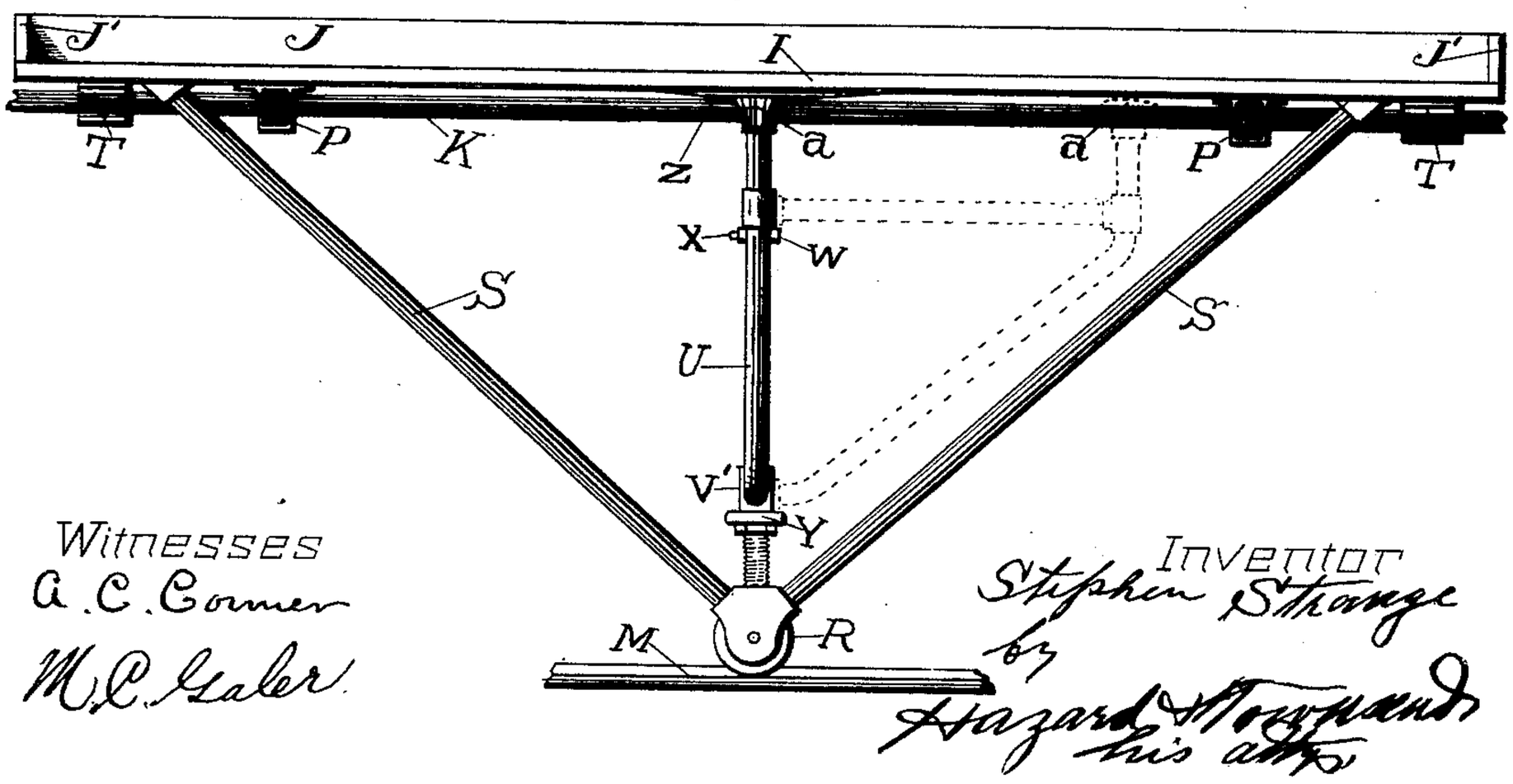


Fig. 3.



Witnesses
A. C. Comer
M. C. Baker

Inventor
Stephen Strange
by
Hazard & Townsend
his attys

(No Model.)

3 Sheets—Sheet 2.

S. STRANGE.

MAIL BAG RACK AND DISTRIBUTING TABLE.

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Fig. 4.

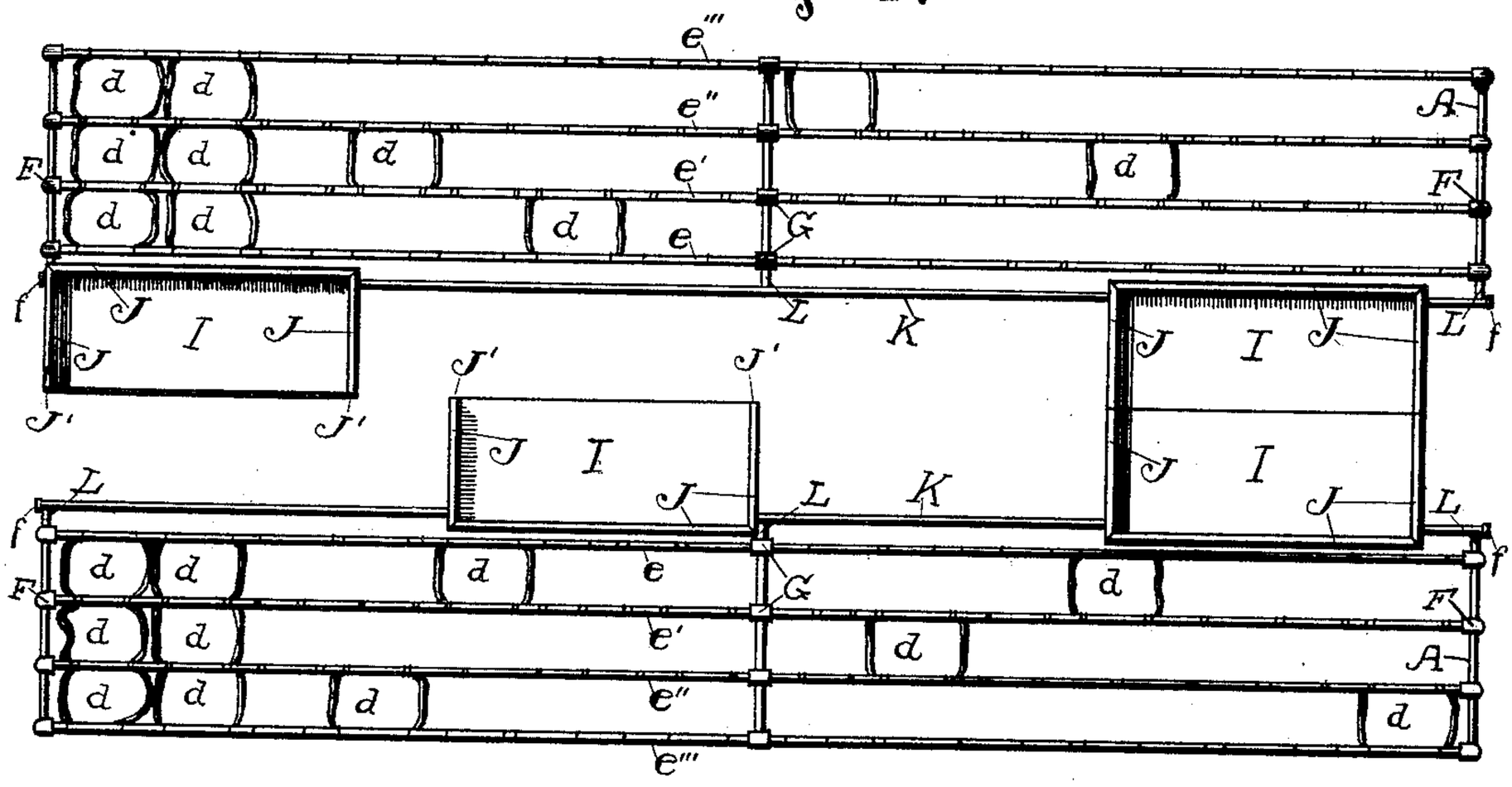


Fig. 5.

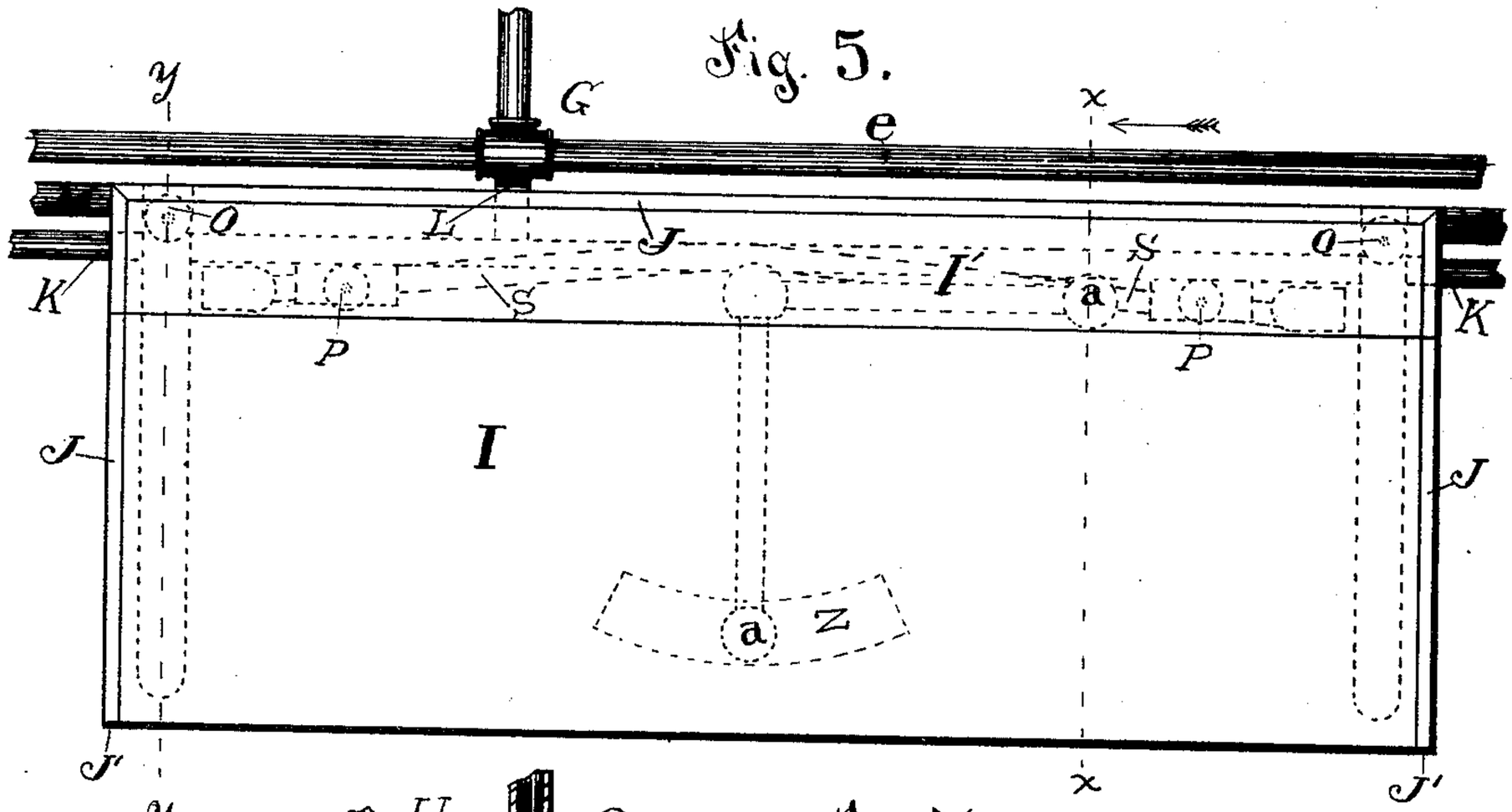


Fig. 6.

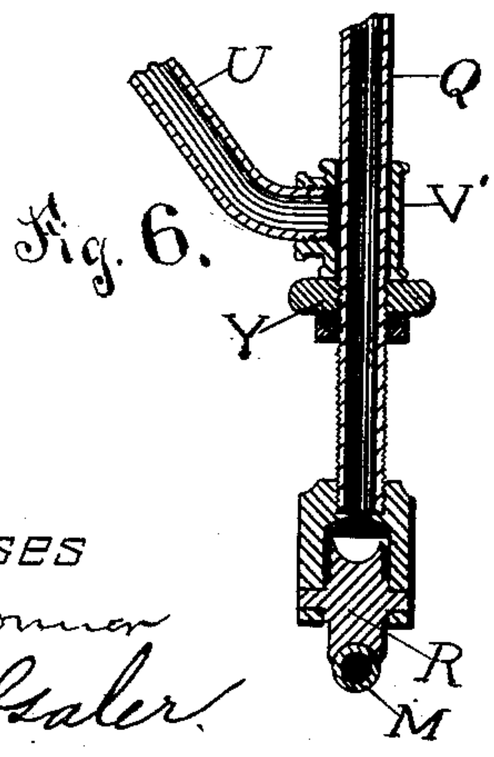
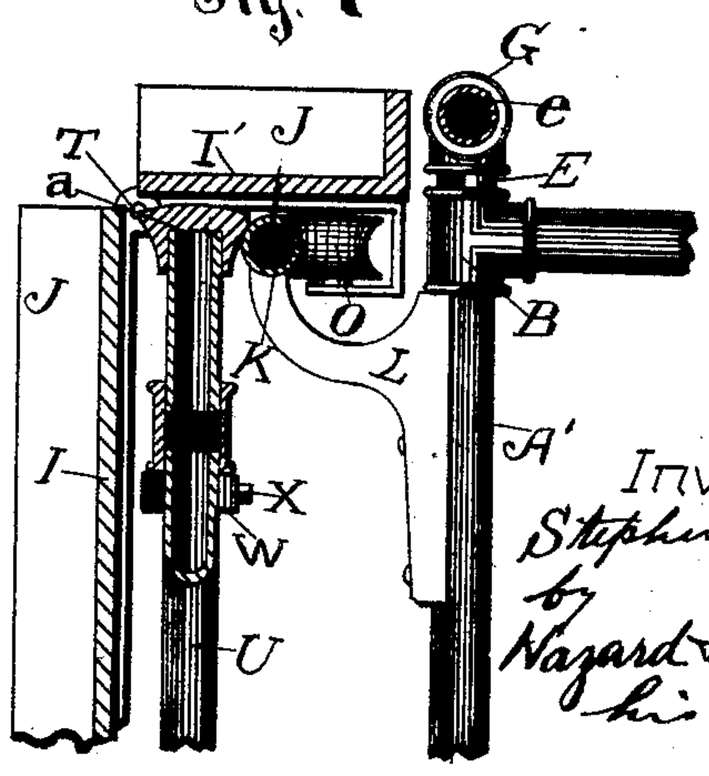


Fig. 7



Witnesses
A. C. Connor
M. C. Isaler

Inventor
Stephen Strange
by
Hazard & Townsend.
his Attys.

(No Model.)

3 Sheets—Sheet 3.

S. STRANGE.

MAIL BAG RACK AND DISTRIBUTING TABLE.

No. 406,966. Patented July 16, 1889.

Fig. 8.

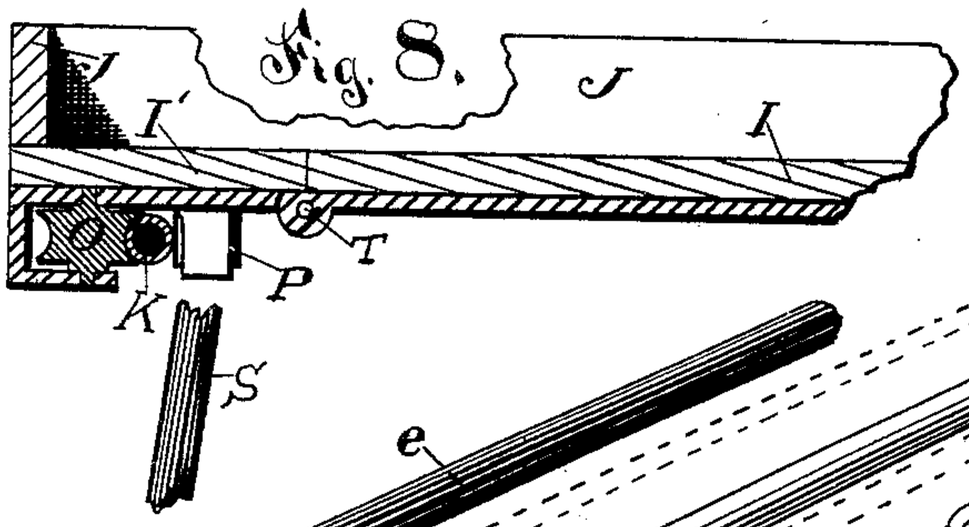


Fig. 9.

Fig. 11.

Fig. 10

Fig. 12.

Witnesses
A. C. Conner
M. C. Baker.

Inventor
Stephen Strange
by Hazard & Townsend
his attys.

UNITED STATES PATENT OFFICE.

STEPHEN STRANGE, OF LOS ANGELES, CALIFORNIA.

MAIL-BAG RACK AND DISTRIBUTING-TABLE.

SPECIFICATION forming part of Letters Patent No. 406,966, dated July 16, 1889.

Application filed September 11, 1888. Serial No. 285,139. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN STRANGE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Mail-Bag Racks and Distributing-Tables, of which the following is a specification.

My invention relates to the racks and tables employed in post-offices and postal cars in distributing the mail.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective view of a rack having four bents. Fig. 2 is an end view of my improved rack, showing one half-table on one frame of the rack raised and one half-table on the other frame of the rack lowered. Fig. 3 is a view of the half-table and its supports, looking toward the edge of the table. Fig. 4 is a plan view of a rack-frame of three bents, showing four half-tables thereon all raised in position for use. Fig. 5 is a plan of one of the half-tables, showing in dotted lines the positions of the rollers and braces. Fig. 6 is a sectional detail of the lower end of the swiveled lateral brace of the table when extended to support the table. Fig. 7 is a sectional detail of the rear of the half-table and the top of the center or lateral brace when such brace is thrown back to allow the front of the half-table to drop. This section is taken on line *x x*, Fig. 5, when the brace is thrown back and the table allowed to drop. Fig. 8 is a section on line *y y*, Fig. 5, showing the running-rail clamped between the rollers of the table. Fig. 9 is a view of the hanging mechanism pertaining to the table, showing the positions of the several parts when the table is raised. Fig. 10 is an end view showing the upper part of the table-hanging mechanism. Fig. 11 is a vertical longitudinal section of a portion of the middle of the table on line *z z*, Fig. 10. Fig. 12 is a section showing the construction of the support-rod and the swiveled lateral brace.

The most convenient form of mail-bag racks comprises a number of horizontal rods of various relative heights, upon which the bags are hung, the rods nearest the distributer being the lowest. In the racks in ordinary use these rods are sustained by strong iron brackets having eyes therein, into which the rods are inserted.

One object of my invention is to produce a form of rack lighter in weight and cheaper of construction than those now used, and made almost wholly of gas pipe and fittings, thereby reducing the difficulty of constructing such rack where large castings are not easily procurable. I accomplish this object by providing bents for sustaining the horizontal rods, consisting of pipe-sections secured together by T and cross-pipe fittings to form a horizontally-united series of perpendicular rectangular frames, a series of pipe-sections of equal lengths screwed into the fittings on the lower side of such frames, and projecting downward therefrom to form the legs of the bent, and pipe-sections of relatively-increasing lengths screwed into the fittings on the upper side of the frame, and projecting upward therefrom to form supports for the horizontal rods of the rack, and provided with fittings into which such rods may be secured. The legs of the bent are screwed into cast-iron bases, which are secured to the floor.

In the drawings, A A′ represent the sections which form the rectangular frames.

B B are the T-fittings which secure the outside sections A′ to the cross-section A.

C are the cross-fittings, D are the leg-sections, and E E′ E″ E‴ are the head-sections. The head-sections of the bents forming the ends of the racks are provided upon their upper ends with elbows F, and the head-sections of the other bents are provided with T-fittings G, into which are screwed the ends of the horizontal rods H, which are preferably made of gas-pipe.

H are the cast-iron bases into which the leg-sections D are screwed.

Another object of my invention is to economize floor-space and at the same time increase the convenience and accessibility of the rack. In order to accomplish this object, I fix two rack-frames parallel to each other, as commonly placed in railway postal cars, with a narrow unobstructed aisle between them, and provide each frame with one or more running distributing half-tables movably mounted upon the frame and projecting

therefrom half-way across the aisle to form with its opposing half-table a complete distributing-table, when the opposing half-tables are made to coincide with each other. This feature of my invention is clearly illustrated in Figs. 1, 2, and 4.

I I are the half-tables, two of which are shown at the right of the sheet in Fig. 4 in their coincident position to form a complete distributing-table, while two other tables are shown separated to leave a passage-way therebetween, whereby easy access is given to all parts of the aisle and to the tables, which are made coincident.

The manner of using this feature of my invention is as follows: The mail-bags for different destinations are grouped upon the rack with reference to their relation to the postal service, and the mail which is destined for the places represented by one of such groups is placed upon one of the half-tables or upon a complete table, which is placed near such group of bags, and the mail is distributed and thrown in in the usual manner. When it is desired to remove the bags, the tables may be slid out of the way and made to alternate in their opposite positions, so as to leave an unobstructed zigzag passage-way from end to end of the rack. The tables are provided along the back and ends of their upper face with upright guards J, square at the free edge of the half-table, so that when two of the half-tables are made to coincide to form the complete distributing-table the square ends J′ of the opposing guards will brace against each other and strengthen the table whenever the weight upon the table is so great as to spring it and bend it down at the mid-line between such two half-tables.

In order that the tables may be readily moved from one end to the other of the racks and be well supported at all times and in all positions, I provide an upper and a lower running-rail along the aisle side of such rack-frame. The upper running-rail K is secured upon the top ends of upright bracket-arms L, the bases of which are secured to the aisle sides of the bents of the rack and project therefrom into the aisle, so as to leave a space between the rail and the bents of the rack-frame to allow for the passage of the table-hangers. The rail K is greater in diameter than the bracket-arm L. The top and sides of the upper rail are thus left free from projections. The lower running-rail M is secured to the tops of lugs N on the aisle-bases H′ and the top of the rail is left free and unobstructed.

The table is secured to the racks by suitable mechanism or hangers, as illustrated by Figs. 3 and 5 to 12, inclusive.

Two perpendicular grooved wheels O are secured to the under side of the table near to the rear edge thereof, with their front peripheries on a line parallel with the axis of the table, and two vertical anti-friction rollers P are secured to the under side of the table with their rear peripheries on a line parallel with the axis of the table, and with a space between the line of the front peripheries of the grooved wheels and the rear peripheries of the anti-friction rollers approximately equal to the diameter of the running-rail K, so that when the table is in position, as shown in Fig. 10, the running-rail is clasped between the grooved wheels and anti-friction rollers.

The table rests upon a perpendicular support-rod Q, secured to the under side of the table, and having at its lower end a grooved caster-wheel R, which rests upon the top of the lower running-rail M. The rod Q is braced by longitudinal braces S S, secured to the lower end of the support-rod Q and to the bottom of the table. The flanges of the grooved caster-wheel hold the lower end of the support-rod Q upon the lower running-rail M. A lateral brace U is secured to and extends from the rod Q up to the under side of the table near its front edge to support the table.

In order that the table may be dropped, as shown in Figs. 2 and 7, it is preferably divided longitudinally near the rear edge of the table and between the anti-friction rollers and the front edge of the table, so that the hangers of the table are all mounted upon the rear section I′. Hinges T, fastened to the under side of the table, secure the front and rear sections of the table together. Thus the front section I is hinged to the rear section I′, which is rigidly secured to the running-rails of the rack, by the hangers, consisting of the grooved wheels, caster-wheel, anti-friction rollers, and support rod and braces.

The lateral support arm or brace U is swiveled upon the perpendicular support-rod Q so as to swing back and forth beneath the table. It is secured to the support Q by two T-fittings V V′, forming journals around the support-rod Q.

The fitting V is held at the height desired by a collar W and set-screw X, and the lower fitting V′ is held in place by a collar Y, which may be secured in like manner, or by being screwed upon the rod, as shown in Fig. 6.

The supports which sustain the table are of such length as to hold the table a slight distance above the upper running-rail, so that the whole weight of the table is sustained by the caster-wheel R. The lateral pressure is sustained by the grooved wheels and anti-friction rollers, which clasp the upper running-rail.

A catch-plate Z, having its under face beveled at the ends, is secured to the center of the under side of the table in the path of the upper convex end or head *a* of the support-brace. There is a slight depression *b* in the center of the under face of the catch-plate,

into which the head *a* will seat itself when the brace is thrown around to support the table, as shown in Fig. 3.

The head *a* is higher than the bottom line of the upper running-rail K, so that when it is thrown back to allow the front section of the table to drop the head will strike upon the rail, and will be thereby held from swinging against the brackets L, so that when the table is dropped, as shown in Fig. 7, it can be pushed freely along from one end to the other of the rack.

When it is desired to remove the tables from the rack, they are pushed along the running-rail and off at the end thereof. The racks are capable of indefinite extension, and any desired number of tables may be placed upon the racks by running them on at the end of the rail. The grooved wheel O and the grooved caster R effectually prevent the tables from being removed in any other way than by running them off at the end, as above set forth. The end of the upper running-rail is provided with a screw-cap *f*, which serves as a stop to prevent the table from being accidentally run off from the rail. The cap is unscrewed when it is desired to remove the tables. The aisle-bases H′ need not project so far from the rack as is desirable for the bracket-arm L; but it is necessary that the support-rod Q be perpendicular, so that the support-brace will swing in a level plane. The support-rod therefore has its upper end curved outward from the rack into the aisle to escape the brackets L. *d d* represent the mail-bags. *e e′ e″ e‴* are the horizontal rods of the rack.

I am aware that it is not new to provide a postal car with a series of supporting-rails along its sides and with a central supporting-rail, and to mount upon the central rail tables which shall engage with and be supported by the side rails. My invention differs from this in that I dispense with the central rail, thereby leaving an open central aisle between the table-supporting frames, through which the attendants may pass.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a mail-bag rack, bents for sustaining the horizontal rods, consisting of pipe-sections secured together by pipe-fittings to form a horizontally-united series of perpendicular rectangular frames, a series of pipe-sections of equal lengths screwed into the fittings on the lower side of such frames to form the legs of the bent, and pipe-sections of relatively-increasing length screwed into the fittings on the upper side of the frames and projecting upward therefrom to form supports for the horizontal rods of the rack, and provided with pipe-fittings in which such rods may be secured.

2. A mail-bag rack comprising the combination of two rack-frames fixed parallel to each other with a narrow unobstructed aisle between them, and one or more running distributing half-tables movably mounted upon each rack-frame and projecting therefrom half-way across the aisle to form with its opposing half-table a complete distributing-table when the opposing tables are made to coincide with each other.

3. In a mail-bag rack such as set forth, the combination of two rack-frames fixed parallel to each other with a narrow unobstructed aisle between them, a movable running distributing half-table, provided along the back and ends of its upper face with upright guards J, square at the free edge of the table, mounted upon one of such frames and projecting therefrom half-way across such aisle, and a like table similarly mounted upon the other frame.

4. In a mail-bag rack such as set forth, the combination, with the frame of the rack, of the upright bracket-arms L, secured to the bents of the rack and projecting therefrom into the aisle, the upper running-rail, greater in diameter than the bracket-arms, secured upon the top ends of such arms, the lower running-rail M, two perpendicular grooved wheels O, secured to the under side of the table near to the rear edge thereof with their front peripheries on a line parallel to the axis of the table, two vertical anti-friction rollers secured to the under side of the table, with their rear peripheries on a line parallel with the axis of the table and with a space between the line of the front peripheries of the grooved wheels and the rear peripheries of the anti-friction rollers approximately equal to the diameter of the upper running-rail, a perpendicular support-rod secured to the under side of the table and having at its lower end a grooved caster-wheel resting upon the top of the lower running-rail, longitudinal braces secured to the lower end of the support-rod and to the bottom of the table, and a lateral support-brace secured to the support-rod and extending therefrom up to the under side of the table.

5. In a mail-bag rack such as set forth, the combination of the running movable half-table secured to the rack by suitable mechanism and divided longitudinally near the rear edge between such mechanism and the front edge of the table, hinges securing the front and rear sections of the table together, the perpendicular support-rod, and the lateral support-brace U, swiveled upon the support-rod.

6. In a mail-bag rack such as set forth, the combination, with the running-rails of the rear section I′, of the table rigidly secured to the running-rails by suitable hangers, such hangers, the front section I of the table hinged to the rear section, and a swiveled support-brace secured to the rear section of the table.

7. In a mail-bag rack such as set forth, the

combination, with the running-rail of the rear section I′, of the running table provided with suitable hanging mechanism, the front section I of the running table hinged to the rear section, the perpendicular support-rod Q, the T-fittings V V′, forming journals around the support-rod Q, the collar W and set-screw X, the collar Y, lateral support-brace U, with the convex head *a* on its upper end, and the catch-plate Z, secured to the table and having its under face beveled at the ends and having a slight depression *b* in the under face of the catch-plate.

STEPHEN STRANGE.

Witnesses:
JAMES R. TOWNSEND,
M. C. GALER.