(No Model.) 2 Sheets—Sheet 1.

L. PAGE & L. WEBER.

CURTAIN FIXTURE.

No. 332,104. Patented Dec. 8, 1885.

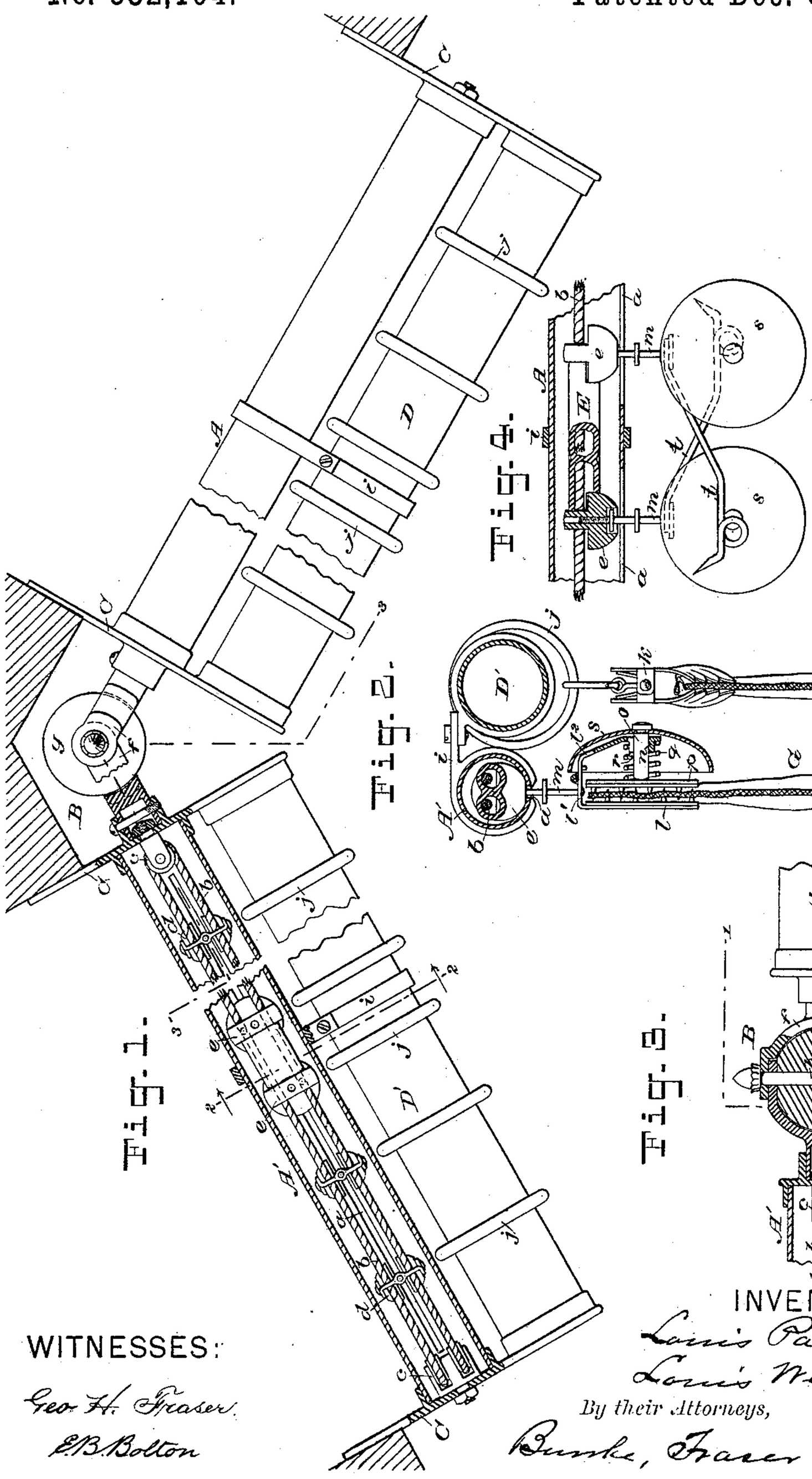

Fig. 1.

Fig. 2.

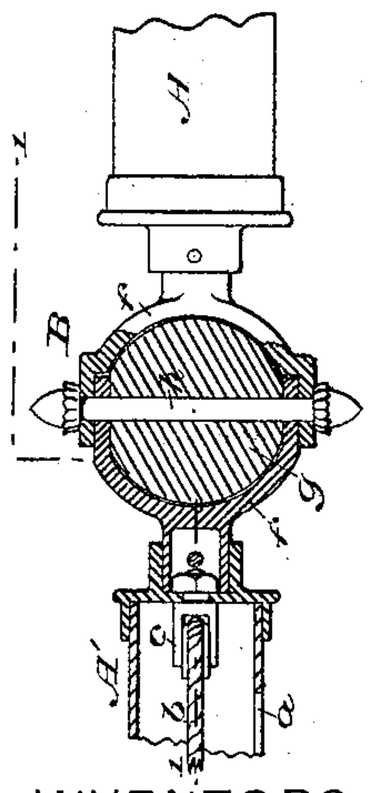

Fig. 3.

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E. B. Bolton

INVENTORS:

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(No Model.) 2 Sheets—Sheet 2.

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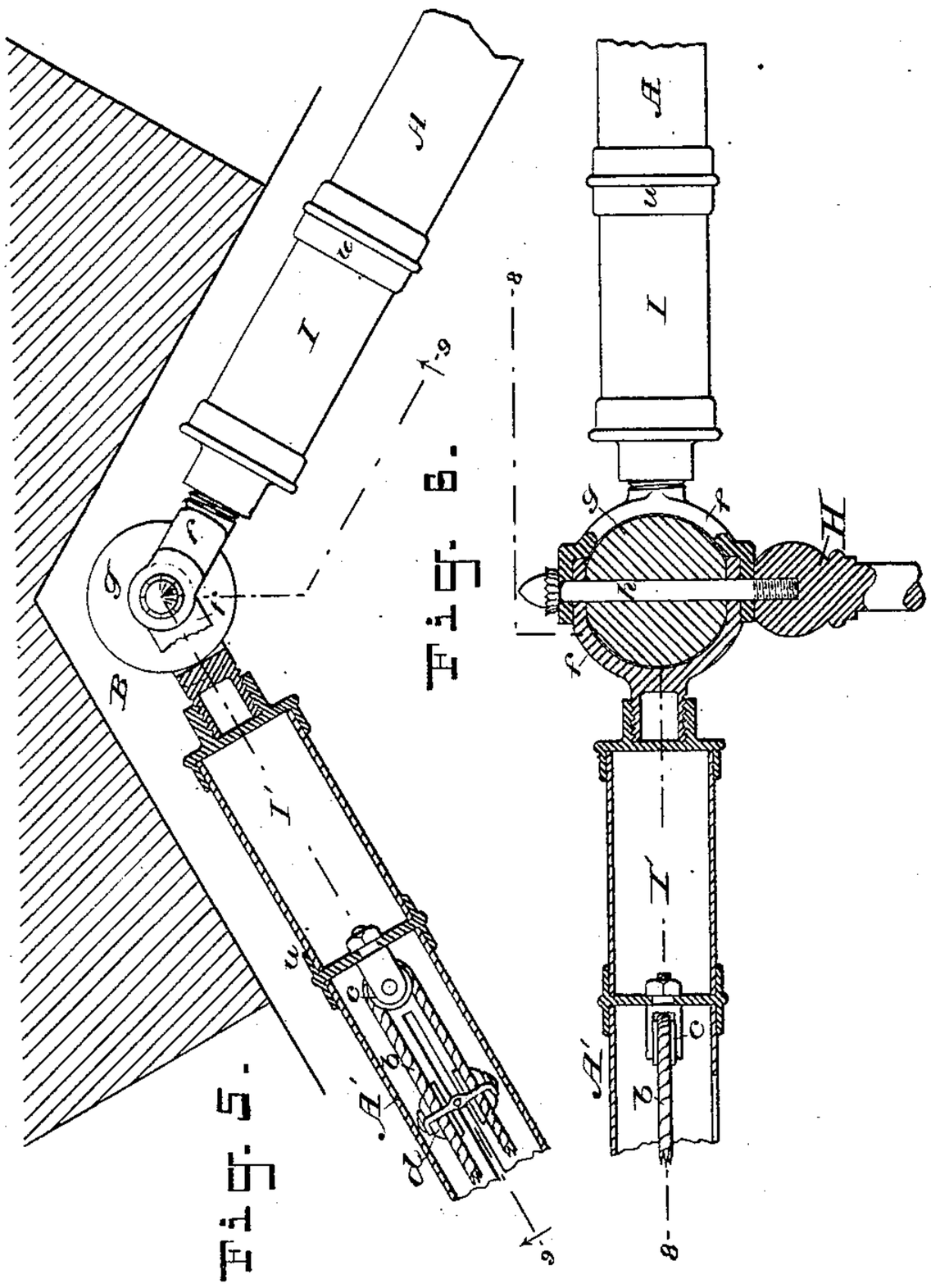

FIG. 5.

FIG. 6.

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UNITED STATES PATENT OFFICE.

LOUIS PAGE AND LOUIS WEBER, OF BROOKLYN, NEW YORK; SAID PAGE ASSIGNOR TO SAID WEBER.

CURTAIN-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 332,104, dated December 8, 1885.

Application filed May 3, 1884. Serial No. 130,288. (No model.)

To all whom it may concern:

Be it known that we, LOUIS PAGE and LOUIS WEBER, both citizens of the United States, and residents of Brooklyn, Kings county, New York, have jointly invented certain new and useful Improvements in Curtain-Fixtures, of which the following is a specification.

Our invention relates to improvements upon that class of curtain-fixtures of which the fixtures described in our Patents No. 291,928, of January 15, 1884, and No. 297,627, of April 29, 1884, are examples. In these the curtain-bar is a tube slotted along its under side and mounted in brackets and sockets. This bar is sometimes made telescopic, in order that its length may be varied. Inside the bar is mounted an operating-cord the bight of which takes over a sheave mounted in one end of the bar, and the free ends of which take over sheaves in the opposite end of the bar, and then pass down through holes in the bar, where they are or may be provided with tassels for conveniently operating the cord. The curtains are suspended by clamps from balls or carriers which are threaded on the operating-cord and slide within the bar, the stems from said carriers depending through the slot in the bar. Two of these carriers—one for each curtain—are called "master-balls" or "travelers," these being attached to the inner edges or ends of the curtains and to the parallel sides of the operating-cord, respectively. Thus by drawing on one free depending end of the cord the curtains are drawn back, being gathered or plaited, and by drawing on the other end of the cord the curtains are drawn out so as to meet at the middle of the bar. Where there are two curtains to be operated from the ends to the middle of the bar, respectively, the two parallel sides of the operating-cord are usually arranged side by side in the same horizontal plane; but where only one curtain is mounted on the bar and this curtain operates the entire length of the bar the sides of the cord may be conveniently arranged one above the other.

With this brief description of the class of curtain-fixtures to which our present invention belongs, we will proceed to describe our improved fixture, premising that so far as the general mode of mounting and operating the curtain or curtains by means of a cord is concerned we herein employ the same method as that above described.

The novel features of our present invention will be hereinafter described, and carefully defined in the claims.

In the drawings, which serve to illustrate our invention, Figure 1 is a plan view of our improved jointed curtain-bar as to the right half, and a horizontal section through the axis of the said bar as to the left half. Fig. 2 is a cross-section on the line 2 2 in Fig. 1, showing also the curtain-clamp and check-piece in section. Fig. 3 is a vertical section through the axis of the joint between the bars, the bars in this view having their axes aligned for convenience of illustration. Fig. 4 is a vertical axial section of the bar, taken at its middle, and showing the check-piece partly in elevation and partly in section and the device for extending and supporting the meeting-edges of the curtains in elevation. Figs. 5 and 6 illustrate a modification which will be fully described hereinafter.

In Figs. 1 to 4 we have shown our improvements applied to curtain-bars adapted to support each two curtains arranged to meet at the middle of the bar.

A A′ represent two curtain-bars jointed to form a compound bar by a joint or hinge, B. These bars may be of any length, and are constructed alike. Therefore a brief description of one will suffice. The tubular bar is slotted at *a* on its under side, and is provided with an operating-cord, *b*, guide-sheaves *c c*, balls or carriers *d d*, threaded on said cord *b*, and master-balls or travelers *e e*, also threaded on said cord, and secured, respectively, to the parallel sides of said cord—that is, one ball to each side of the cord. This internal mechanism is the same, or substantially the same, as that shown in our former patents.

Figs. 1 and 3 illustrate the construction of the joint B.

f f are curved forks which embrace a sphere, *g*. The ends of the forks overlap and have eyes in their ends, through which passes a hinge-

pin, *h*, that also passes diametrically through the sphere. This sphere serves as an ornament, and as the forks are curved to fit it and play around it when the hinge is flexed the sphere also serves to strengthen and support the joint. The stems of the forks may be attached to their respective bars in various ways. For example, the stem may enter a socket formed on the bracket C, which supports and provides an end cap for the bar, and be secured in said socket by a pin.

D D′ are the auxiliary curtain-bars arranged in front of bars A A′, and supported in sockets formed in prolongations of the brackets C, which support the latter bars. In order to prevent sagging, the bars may also be connected by a band or bands, *i*, at their middles. The bars D D′ may be provided with curtain-operating mechanism similar to that employed with bars A A′. As herein represented, however, the curtain is suspended from exteriorly-arranged rings *j*, provided with spring-clamps *k*, to grasp the curtain, as seen in Fig. 2.

In order to prevent the two travelers *e e* from being drawn too close together when the curtains are closed, as they are apt to be, we provide a check-piece, E, which is in the nature of a distance-piece, provided with two holes and strung or threaded upon the two parallel sides of the operating-cord *b*, between the travelers *e*. This check-piece may be two metal tubes of the same length soldered or otherwise secured together. In lieu of leaving this check-piece loose to ride on the cord, it may be secured to the inside of the bar at its middle. We prefer it unattached, as shown, as this enables us to dismount the inside mechanism the more readily.

When the travelers are constructed as herein shown, the lower side of the check-piece is cut away at its ends in order that the ends of said piece may impinge on that portion of the travelers through which the cord *b* passes.

The form of the curtain-clamp we have employed is sufficiently illustrated in Figs. 2 and 4. This clamp comprises a bent plate of metal, *l l′ l²*, one branch, *l*, of which bears teeth and forms a fixed clamping-jaw. The top plate, *l′*, is connected by a stem, *m*, to the carrier or traveler, as the case may be, and the other branch, *l²*, is furnished with a tubular sleeve, *n*, through which plays the stem *o* of the other or movable clamping-jaw, *p*, which is also provided with teeth.

Between the jaws *p* and the branch *l²* is arranged a spring, *q*, which serves to press the jaw *p* up to jaw *l*, and thus cause the teeth on the jaws to bite on the curtain G in Fig. 2. This construction keeps the face of jaw *p*, guided by the passage of its stem through the sleeve, always parallel with the face of jaw *l*, as will be seen. When the curtain G is to be inserted in or removed from the clamp, the jaw *p* is drawn back, thus compressing spring *q*, and to temporarily retain the jaw thus drawn back we employ the following-described device. The stem *o* of jaw *p* is provided with a pin or stud, *r*, which plays along a slot in the sleeve *n* when jaw *p* is drawn back, and when the said pin *r* has passed through the said sleeve the stem *o* is turned until the pin *r* is out of register with the slot in the sleeve, and bears against the back or outer end of said sleeve, thus serving as a stop or detent. A reversal of the operation allows the spring to close jaw *p* on the curtain.

To the end of stem *o* is secured an ornamental cap, *s*, which serves to conceal the mechanism of the clamp, and also as a handhold whereby the clamp may be operated.

We may employ any good form of clamp, clasp, or clip for suspending the curtains from the carriers in lieu of that described.

In Fig. 4 we have shown wires *t*, attached to the clamps, supported by the master-balls, and designed to support the meeting edges of the curtains, and carry them past each other, so as to overlap. Such devices are not new with us, and we make no claim to them; nor do they form any essential part of our invention.

In some cases in lieu of supporting the inner or jointed ends of the curtain-bars on brackets, as shown in Fig. 1, the spherical joint or hinge may be supported on a post or other support, and where it is desirable or necessary, owing to the position in which the fixture is placed, the bars may be provided with extension-pieces. These features are illustrated in Figs. 5 and 6, wherein H is the support for the spherical joint, which support may extend to the floor or be attached to the wall, and I I′ are the extension-pieces for the bars A A′, respectively. These pieces are connected to the bars by forming sockets *u* on the end cap of the bars, as clearly shown, which receive the ends of the extension-pieces. We may of course use the auxiliary bars D D′ with this construction; but we have not deemed it necessary to show them in Figs. 5 and 6. Two bars hinged together, as herein shown, but each provided with internal mechanism for operating a single curtain the entire length of the bar, may be used; but usually the bars will be arranged for two curtains, as described. The auxiliary bars D D′ may be larger in diameter than the bars A A′, and they are usually so constructed; but the comparative sizes of the bars are not essential to our invention.

We are aware that it is not new, broadly, to hinge together the ends of two curtain-poles in order to make them fit into an angle, and that, broadly, it is not new to introduce a sphere between the ends of said poles at the joint. Therefore we do not claim this. We are also aware that it has been proposed to mount a right and left screw-threaded shaft parallel with the curtain-pole to run the curtains out and in; but we employ nothing of this kind.

The clamp for supporting the curtains which we have herein described forms no part of our

present invention, as any means may be employed for attaching the curtain to the travelers.

Having thus described our invention, we claim—

1. The combination, with the bars A A′, connected together by a hinge-joint, as shown, of the auxiliary bars D D′, and the brackets C, provided with sockets to receive the ends of both sets of bars, substantially as described and shown.

2. The combination, with the tubular slotted curtain-bar and the curtain-operating mechanism, substantially as described, arranged within said bar, of the check-piece E, threaded or strung on the operating-cord between the travelers, substantially as and for the purposes set forth.

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Witnesses:
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HENRY FR. KOCH.