

(No Model.)

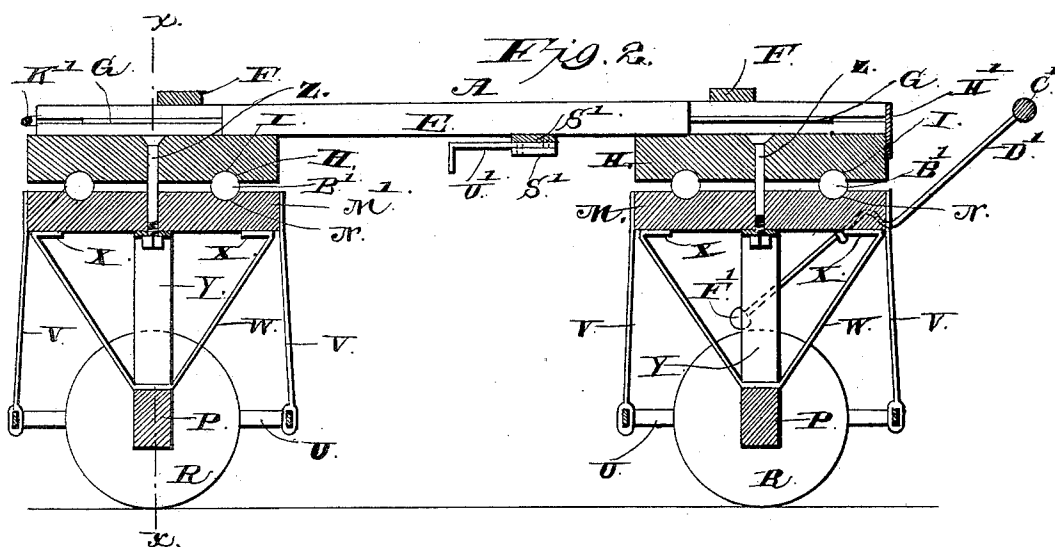
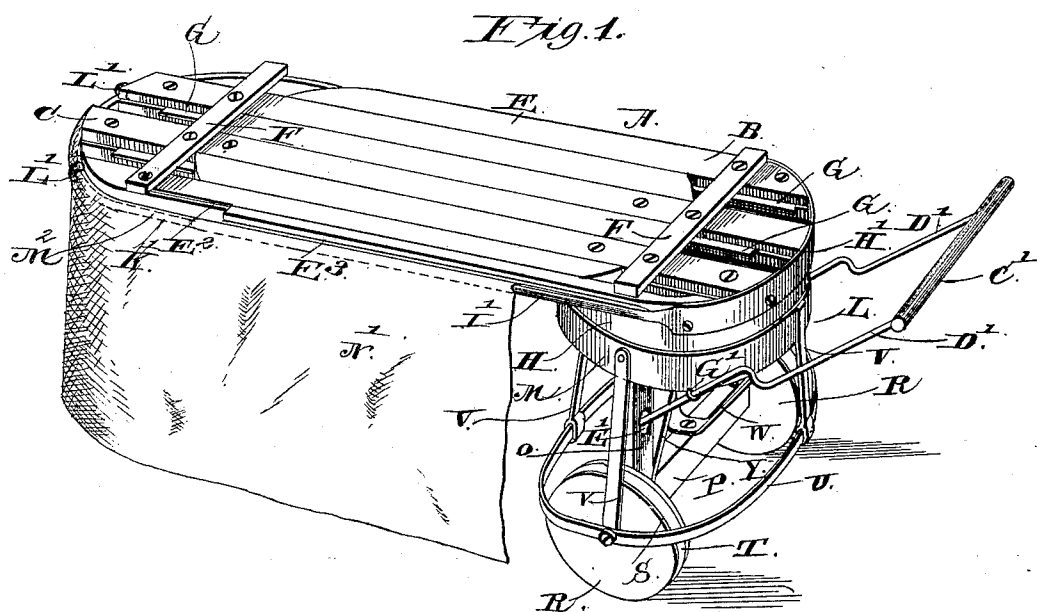
2 Sheets—Sheet 1.

J. W. FINCH & J. B. PARK.

BIER.

No. 398,776.

Patented Feb. 26, 1889.



Witnesses
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J. Warner

Inventors
John W. Finch
John B. Park
By their Attorneys
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(No Model.)

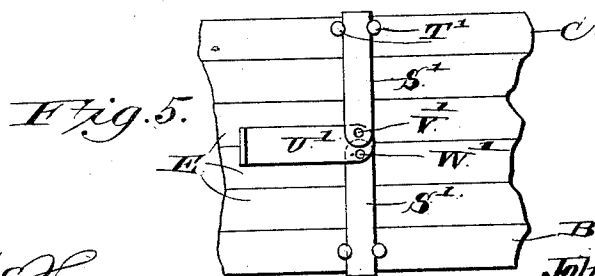
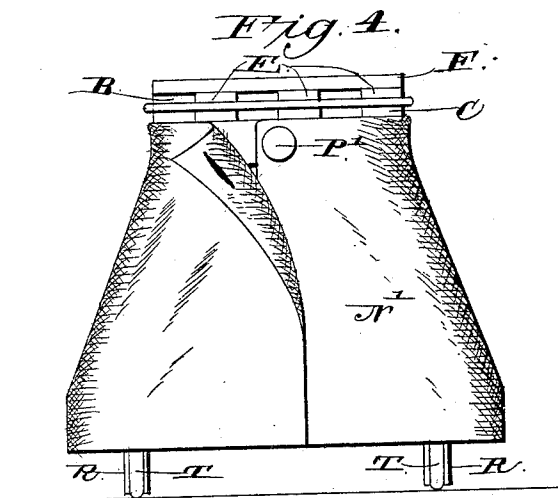
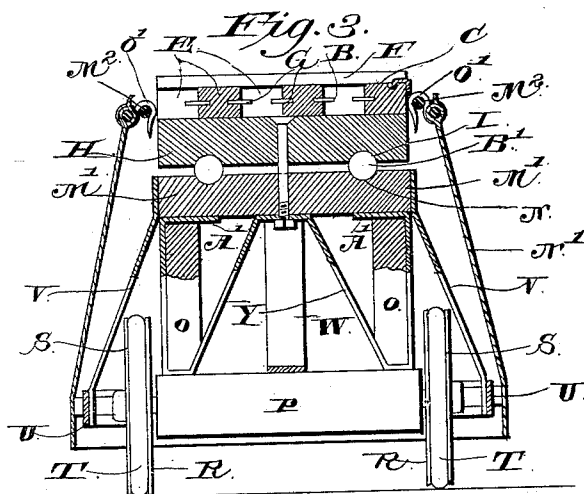
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Witnesses

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UNITED STATES PATENT OFFICE.

JOHN W. FINCH AND JOHN B. PARK, OF CLAY CENTRE, KANSAS.

BIER.

SPECIFICATION forming part of Letters Patent No. 398,776, dated February 26, 1889.

Application filed October 24, 1888. Serial No. 289,004. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. FINCH and JOHN B. PARK, citizens of the United States, residing at Clay Centre, in the county of Clay and State of Kansas, have invented a new and useful Improvement in Biers, of which the following is a specification.

Our invention relates to an improvement in biers, designed particularly for use in conveying coffins between the door of a church and the altar through the aisle; and it consists in the peculiar construction and novel combination of parts, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

The object of our invention is to provide a bier which is longitudinally extensible, and is thereby adapted to accommodate coffins of various lengths; and a further object of our invention is to provide a bier with trucks, which adapt the bier to be readily trundled through the aisles of a church and to turn sharp corners.

In the accompanying drawings, Figure 1 is a perspective view of a bier embodying our improvements. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view taken on the line *xx* of Fig. 2. Fig. 4 represents a modification. Fig. 5 is a detail view.

A represents the body of the bier, which comprises the front section, B, and the rear section, C. Each of the said sections is formed of a number of longitudinal bars, E, which are connected near one end, on their upper sides, by a transverse cleat or slat, F.

The bars E of the two members overlap each other, as shown in Fig. 1. In the opposing edges of the bars are longitudinal horizontal grooves, in which are inserted strips G, which are made of steel or other suitable metal, and which project beyond the bars to which they are attached and enter the corresponding grooves in the adjacent bars, and thereby effect tongue-and-groove joints between the bars, which serve to secure the members together, and adapt the same to be extended or contracted, as may be desired. The outer bar of the member C has a longitudinal groove, E², in its upper side. An angle-bar, E³, is

arranged on the outer side of said grooved bar, and has one of its depending flanges engaging the outer side of said bar and the other depending flange engaging the groove E².

Secured to the front end of the front member, B, and to the front end of the angle-bar is a circular bed or plate, H, which is provided with a concave annular concentric groove, I. Secured under the rear end of the rear member, C, is a circular bed or plate, K, which is also provided with an annular groove.

L represents the front truck, the construction of which is as follows: The upper end of the front truck consists of a circular disk or plate, M, which is provided on its upper side with an annular concentric concave groove, N, which is of the same diameter as the groove I. Depending from the said plate, at opposite sides thereof, are a pair of vertical standards, O, the lower ends of which diverge and are secured to the upper side of an axle, P. On the spindles of this axle are mounted a pair of wheels, R, which are provided with peripheral grooves S, in which are fitted tires T, of rubber or other suitable elastic material, which render the wheels noiseless and prevent them from rumbling on the floor.

U represents an elliptical guard, which is secured on the ends of the axle-spindles and prevents the same from becoming entangled with the end of the pews or other obstructions which may chance to be in the church-aisle, and thereby serves to prevent the bier from being jolted when the same is being trundled through the aisle, and also gives form to the drapery, which, with the trucks, forms pedestals.

V represents vertical braces, which depend from the circular plate M and have their lower ends secured to the elliptical guard at the ends and centers thereof.

A V-shaped brace, W, has its upper end bent inward to form arms X, which bear under and are secured to the plate M, and the lower central portion of the said brace is bolted on the center of the axle P.

Y represents a brace, which is arranged at right angles to the brace W, and is substan-

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tially in the form of the letter **W**. The central portion of the said brace **Y** is provided with an opening, which registers with the central opening in the plate **M** and receives a king-bolt, **Z**, that depends from the center of the circular bed **H**. The lower ends of the said brace **Y** pass between the axle and the lower ends of standards **O**, and the outer portions of said brace bear against and are secured to the outer sides of said standards. The ends of the braces are bent inward at substantially right angles and form arms **A'**, which are secured under the plate **M** and pass over the upper ends of the standards.

From the foregoing description it will be understood that the standards are braced against lateral strain and against longitudinal movement, and thereby the connection between the axles and the plate **M** is rendered exceedingly strong.

The rear truck is exactly similar to the front truck, and its plate **M'** is also pivoted by a king-bolt to the rear bed, **K**. In the grooves **N** and **I** are fitted balls **B'**, which reduce the friction between the plate **M** and the front head, **H**, and form a ball-bearing between the front truck and the front end of the bier, thus enabling the front truck to be turned very readily, and preventing the same from creaking or giving forth an unpleasant sound in the event that it has not been properly oiled. Similar balls are fitted in the grooves of the plate **M'** and the rear bed, **K**.

C' represents a cross-bar or rung, which constitutes a handle, and to which, near its ends, are secured the upper ends of a pair of draft-rods, **D'**. The said rods pass through inclined openings **E'** in the standards **O**, and are provided at their lower rear ends with nuts or heads **F'**, which prevent the rods from being withdrawn from the standards. Said rods are also guided through keepers or loops **G'**, which are secured to the lower edges of the plate **M** on opposite sides thereof.

From the foregoing description it will be understood that the rods **D'** will be drawn out from the front truck to enable the handle to be readily grasped, and thereby adapt the bier to be more readily drawn from one place to another. The rear truck is provided with similar draft-rods and cross-bars, by means of which the rear truck may be guided and pushed. Hence the bier is adapted to be drawn in either direction and caused to turn sharp corners with ease, both ends being alike and provided with pivoted trucks.

On the front side of the head **H** is secured a curved strap, **H'**, from the ends of which project rearward-extending tubular arms or sleeves **I'**, that are arranged at a slight distance beyond the sides of the front member, **B**, of the body.

K' represents rods which have their curved rear portions secured to the rear end of the member **C** of the body by means of loops or keepers **L'**, and the arms **M'** of the said rods

project forward, are arranged beyond the sides of the members **C**, and enter the tubular arms **I'**. The said rods **K'** and the strap and tubular arms constitute a supporting-frame, which passes entirely around the body of the bier, and to which drapery, **N'**, may be attached by means of hooks **O'**, secured to the upper edge of the drapery to engage the frame, so as to suspend the drapery therefrom.

Another mode which may be employed for securing the drapery in place is to pass the upper edge of the drapery over the same and button the same on buttons **P'**, with which the body and heads of the bier may be provided, as illustrated in Fig. 4.

S' represents a pair of clamp-arms, which are arranged transversely under the body of the bier and have their outer ends upturned, and thereby adapted to engage the outer sides of the members **B C** thereof. One of the said clamping-arms is rigidly secured to one of the members by means of bolts or screws **T'**, and the other arm is adapted to slide freely under the other member.

U' represents a lever-arm, which is fulcrumed to the inner end of one of the arms **S'** by a pivotal stud, **V'**, and is connected to the other by a pivotal stud, **W'**, which is arranged eccentrically with relation to the stud **V'**. By turning the lever **U'** in one direction the clamping-arms may be drawn inward, so as to firmly lock the members of the body together and secure the same at any desired longitudinal adjustment, and by turning the lever **U'** in the opposite direction the clamps may be released from the sides of the body.

Having thus described our invention, we claim—

1. The combination, with the longitudinally-adjustable members **B C**, of the tubular sleeves **I'**, secured on the sides of one of the members, and the rods **K'**, secured to the other member, and having their arms engaging the sleeves, substantially as described.

2. The combination, with the members **B C**, having the overlapping bars **E**, of the clamp-arms **S'**, engaging the sides of the members, and the lever **U'**, connected eccentrically to the inner ends of the said clamping-arms, substantially as described.

3. The bier having the body provided with the plates at its ends, the trucks having the circular disks or plates, the king-bolts centrally pivoting the trucks under the body-plates, and the anti-friction wheels engaging grooves in the opposing sides of the body and truck plates and concentric with the king-bolts, substantially as described.

4. In the truck, the combination of the plate, the standards depending therefrom, the axle secured to the lower ends of the standards, and the braces **W** and **Y**, arranged at right angles with relation to each other and connecting the plates with the axle, substantially as described.

5. The combination of the plate, the stand-

ards depending therefrom, the axle secured
to the lower ends of the standards, and the
W-shaped brace Y, having its central portion
arranged under the center of the plate and
5 its outer ends bearing against the outer sides
of the standards and secured thereto, substan-
tially as described.

In testimony that we claim the foregoing as

our own we have hereto affixed our signatures
in presence of two witnesses.

JOHN W. FINCH.
JOHN B. PARK.

Witnesses:

J. H. SIGGERS,
H. F. RILEY.