

(No Model.)

3 Sheets—Sheet 1.

J. F. FLAD.
FOLDING CARRIAGE.

No. 401,939.

Patented Apr. 23, 1889.

Fig. 1.

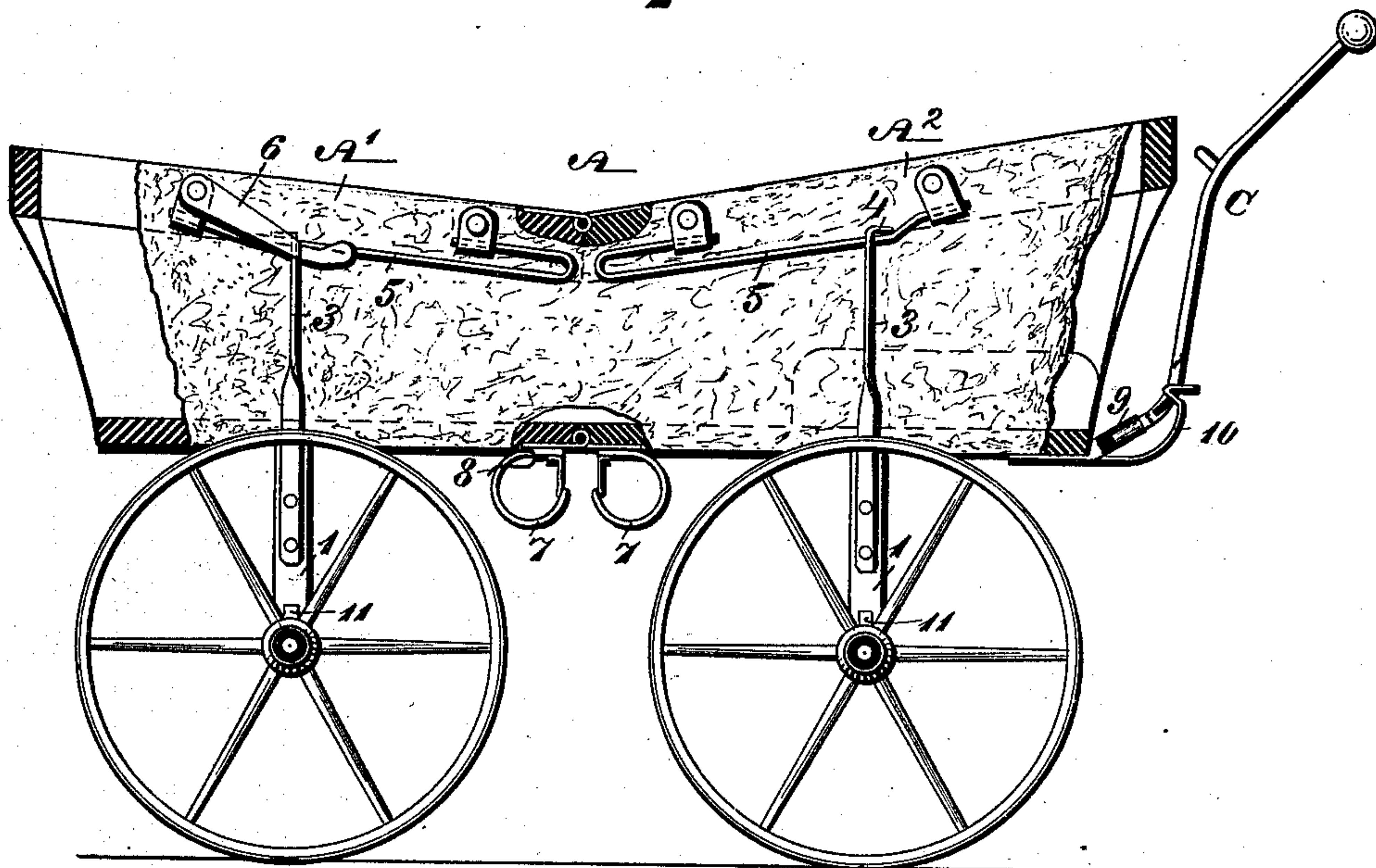
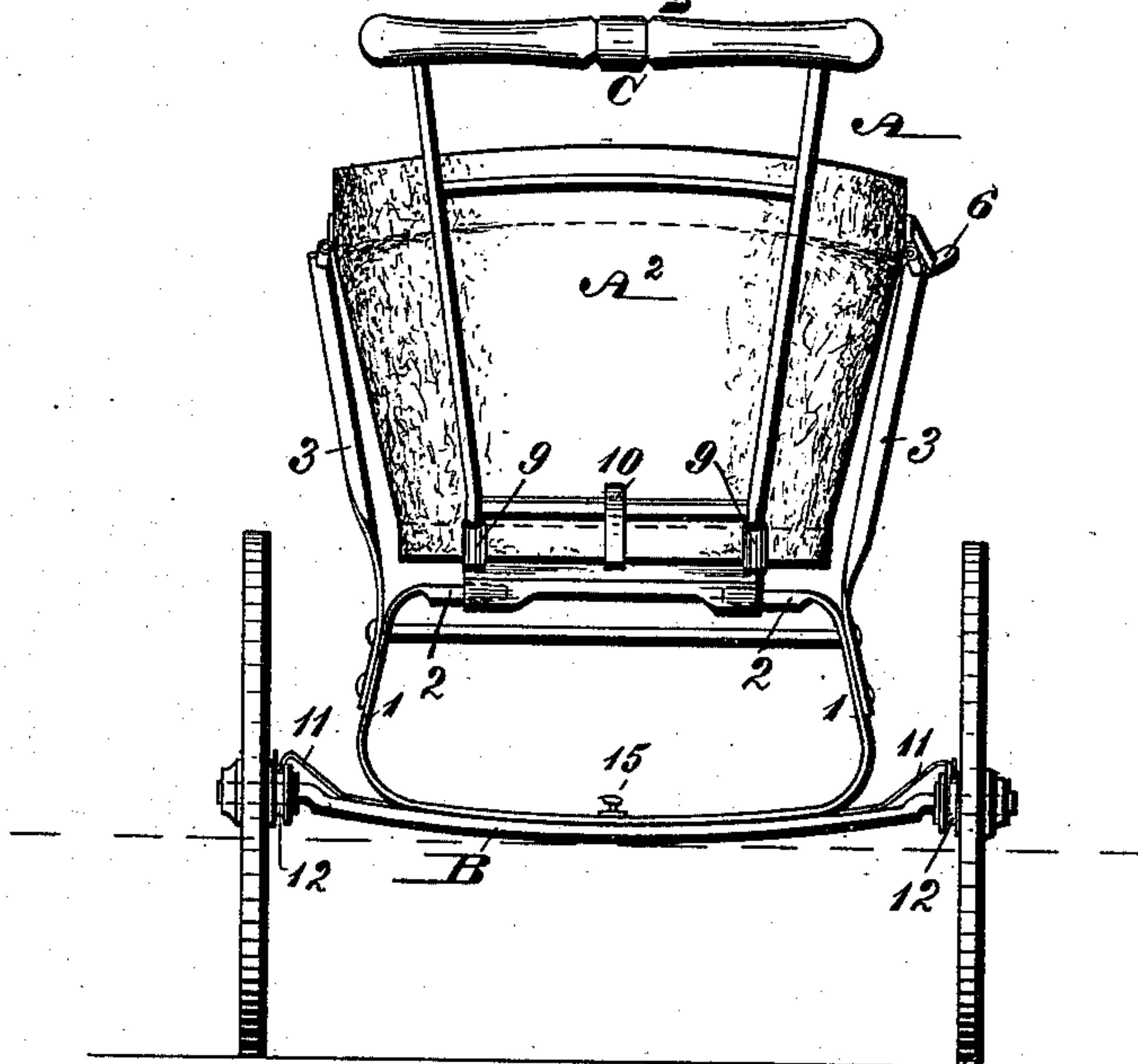


Fig. 2.



Witnesses

Theo. Rolle.

A. P. Jennings.

Inventor.

John F. Flad.

By his Attorneys

Giedersheim & Fintner

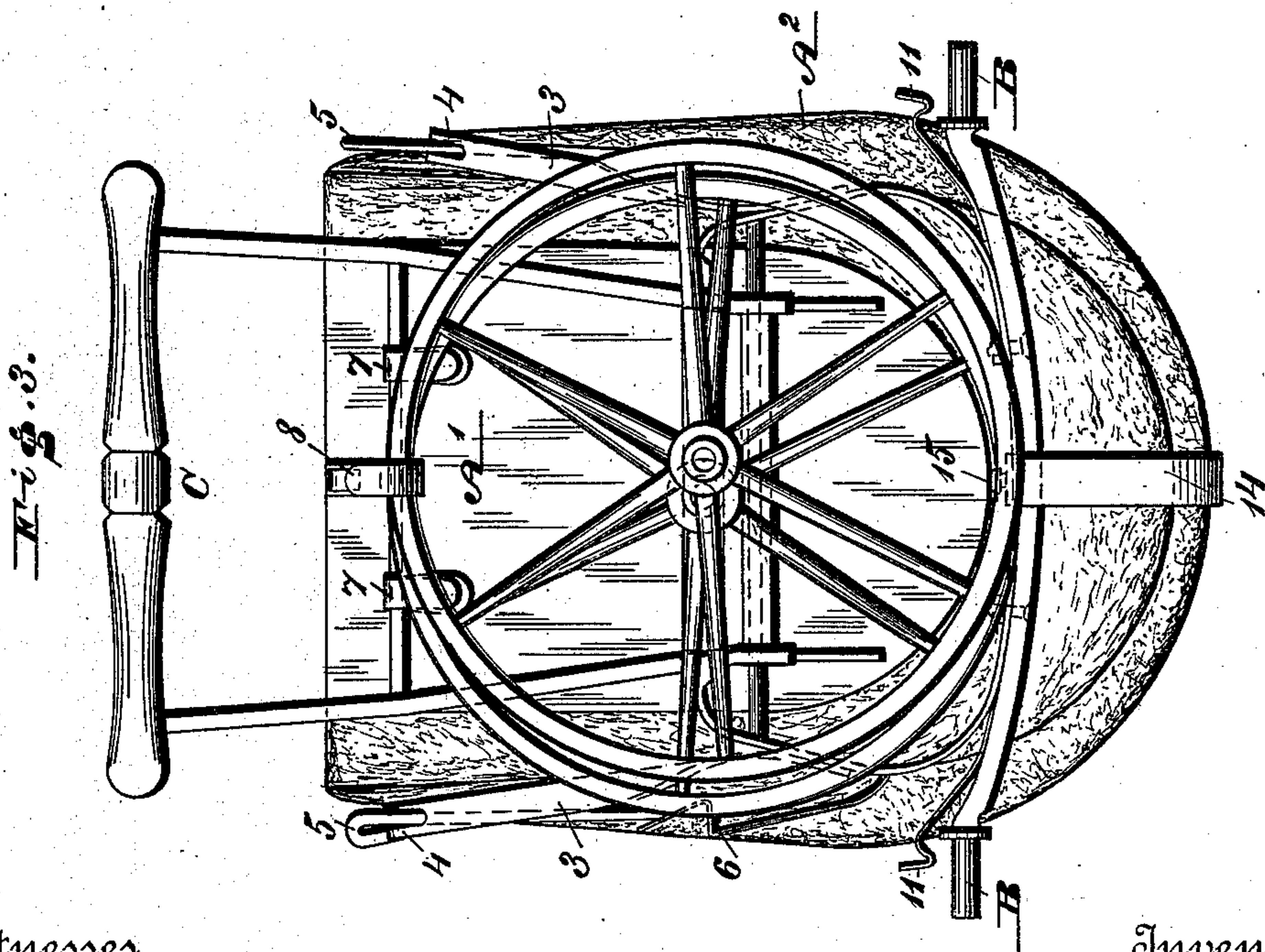
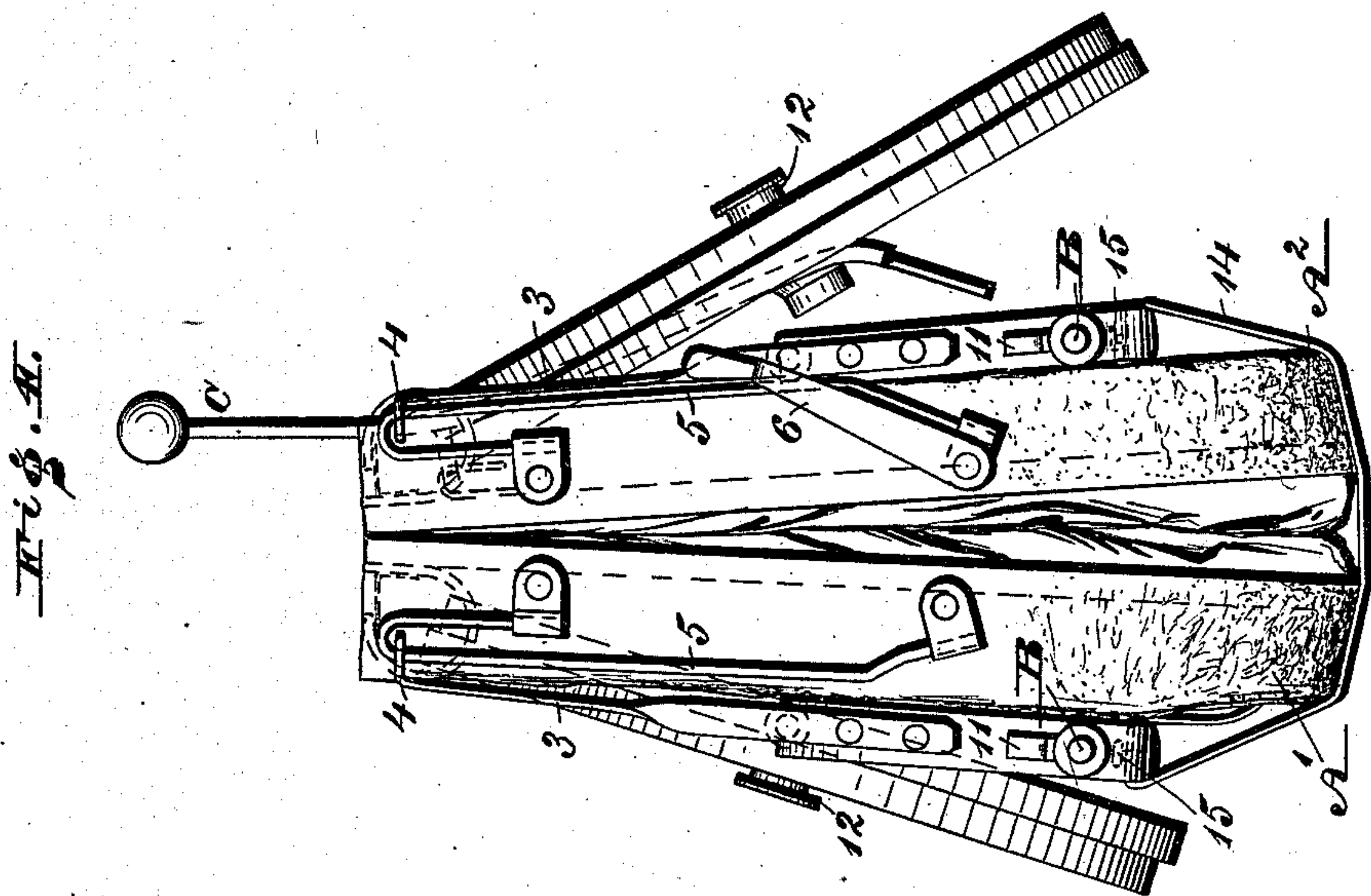
(No Model.)

3 Sheets—Sheet 2.

J. F. FLAD.
FOLDING CARRIAGE.

No. 401,939.

Patented Apr. 23, 1889.



Witnesses.

Thos. Rolfe

A. P. Jennings.

Inventor.

John F. Flad

By

his Attorneys.

Diedersheim & Kintner

(No Model.)

3 Sheets—Sheet 3.

J. F. FLAD.
FOLDING CARRIAGE.

No. 401,939.

Patented Apr. 23, 1889.

Fig. 5.

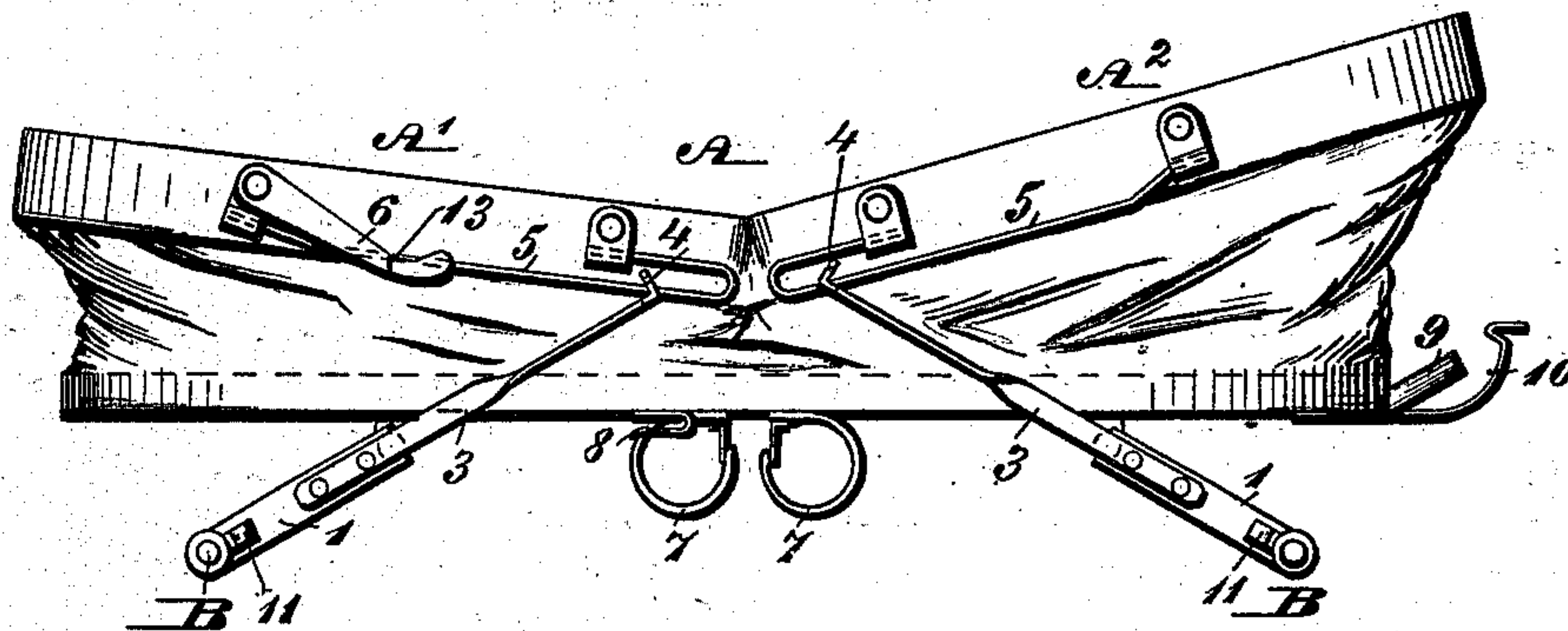


Fig. 6.

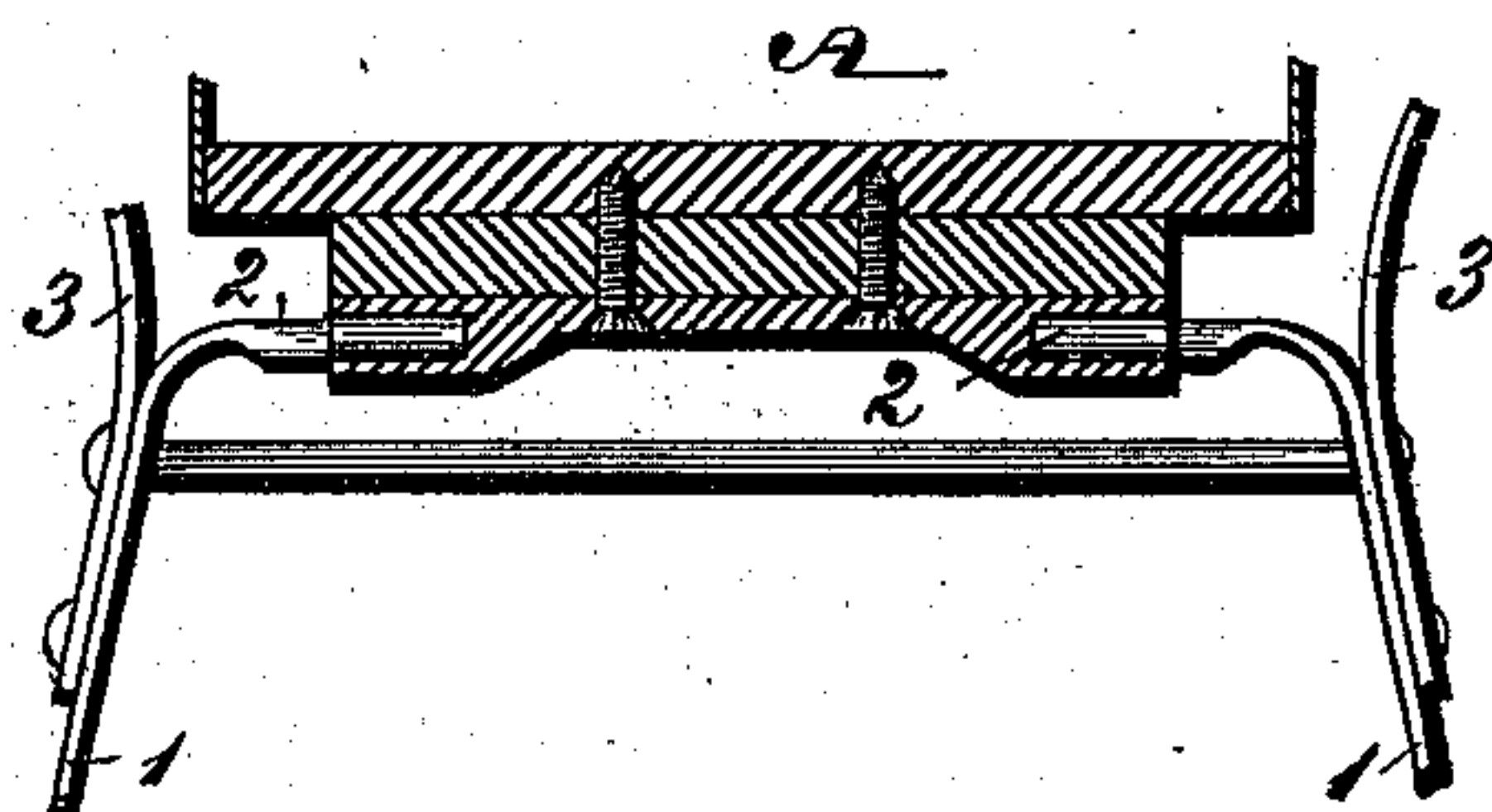
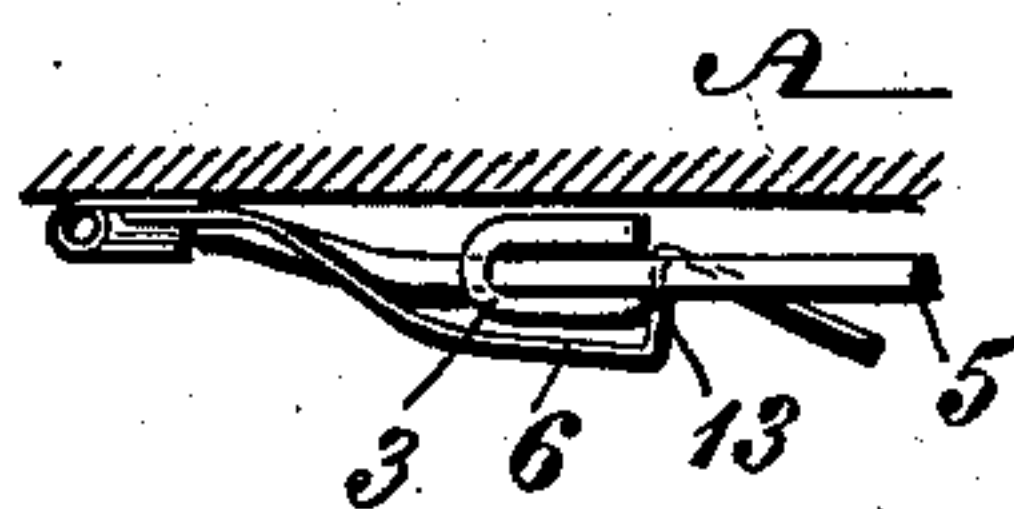


Fig. 7.



Witnesses,

Thos. Rollé
A. P. Jennings.

Inventor,

John F. Flad.

By his Attorneys

Diedersheim & Fintner

UNITED STATES PATENT OFFICE.

JOHN F. FLAD, OF PHILADELPHIA, PENNSYLVANIA.

FOLDING CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 401,939, dated April 23, 1889.

Application filed February 7, 1889. Serial No. 298,979. (No model.)

To all whom it may concern:

Be it known that I, JOHN FREDERICK FLAD, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Folding Carriages, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a folding carriage, more particularly those designed for children, the same embodying a folding body and axle, removable parts, and other features, as will be hereinafter fully set forth, and definitely pointed out in the claims.

Figure 1 represents a partial side elevation and partial vertical section of a folding carriage embodying my invention. Fig. 2 represents an end view thereof. Figs. 3 and 4 represent side elevations, at a right angle to each other, of the carriage in folded condition, and on an enlarged scale. Fig. 5 represents a side view of the body of the carriage and immediately-connected parts partially folded. Fig. 6 represents the manner of connecting the springs with the body. Fig. 7 represents the catch for holding an arm on the folding axle.

Similar letters and numerals of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the body of a child's carriage, the same having flexible sides and being formed in sections A' A², hinged together at or about the center of the body, as will be seen in Fig. 1, whereby the sections may be folded one on the other, as is most plainly seen in Figs. 3 and 4.

B designates the axles, the same being connected with springs or spring-frames 1, the latter having their upper ends bent inwardly forming journals 2, which are mounted on the under side of the body A, whereby said axles may be said to be pivoted to said body. Rising from the springs are arms 3, whose upper ends are formed with loops or eyes 4, which latter are fitted on rods 5, so as to slide thereon, said rods extending along the sides of the sections of the body A. In

order to lock the arms 3, there are secured to either of the sections of the body a spring-catch, 6, which engages with the adjacent arm 3, by which means the body is prevented from being folded and the axles from shifting from their proper positions. On the under side of the body are hooks 7 and 8, for supporting the wheels and handle of the carriage when the parts of the latter are folded, as will be hereinafter again referred to.

C designates the handle of the carriage, the same being removably fitted to sockets 9, and held by a spring-catch, 10, said sockets and catch being connected with the body at the rear thereof.

On the axles are spring-catches 11, which engage with necks 12 on the hubs of the wheels of the carriage, for holding the latter on said axles without the use of linchpins, nuts, &c.

The operation is as follows: When the parts are in position, (shown in Figs. 1 and 2,) said parts are prevented from folding and the carriage may be used as usual. When, however, the carriage is to be folded, the catches 11 are raised and the wheels removed from the axles, the handle C being also removed. The arms 3, which carry the springs and axles, are now turned toward each other, as will be seen in Fig. 5, the inner ends of the rods or guides 5 being bent, constituting stops 13, whereby the arms 3 are prevented disengaging from said rods. The sections of the body are then folded on each other, when the axles lie snugly against the bottom of the sections of the body, and the top of the body closes on the bottom thereof, owing to the flexible nature of the sides of said body. A strap, 14, may now be connected with buttons 15 on the axles, whereby the sections of the body are prevented from separating. The position of the parts thus far described is illustrated in Fig. 4. The handle C is now placed on the bottom of the section having the hooks 7 and 8, and the upper cross-piece or round of said handle is fitted on the hooks 7.

The wheels are hung in twos on the hooks 7 of the sections of the body, those on the section which carries the hook 8 bearing against the lower portion of the handle, thus holding

the latter firmly in place. As the handle is connected with the hooks 7, and the other parts are in position shown in Figs. 3 and 4, a compact bundle of the members of the carriage is produced, and the same may be conveniently carried by the handle C.

It is evident that the wheels and handle may be removed, the strap 14 unbuttoned, and the body unfolded. The arms 3 are then turned outwardly until they assume upright positions, and the axles properly located to receive the wheels. The catch 6 is engaged with one of the arms, whereby the shifting of the latter is prevented, the folding of the sections being thereby also prevented. The wheels are applied and secured by the catch 11, and the handle is located and engaged by the catch 10. The carriage is now in operative condition, and may be used as designed.

When the arms 3 assume their upright position, they hold the sides of the body properly distended and prevent the top of said body from dropping or folding on the bottom, as will be seen in Fig. 1.

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

1. A folding body having axles which are pivoted to said body, and provided with arms which are fitted on rods or guides attached to the body, substantially as described.

2. In a folding carriage, the arms 3, connected with the pivoted axle, the guides 5, attached to the body, said arms adapted to slide on said guides, and the catch 6, engaging with either of said arms, the parts being combined and operating substantially as described.

3. In a folding carriage, the sockets 9 and catch 10 connected with the body thereof, in combination with the handle of the carriage fitted to said sockets and engaged by said catch, substantially as described.

4. In a folding carriage, the springs thereof formed with journals which are mounted on the body thereof, and provided with arms which are connected with rods or guides connected with said body, substantially as described.

5. A folding carriage having a folding body, a handle and wheels removably connected with said body, folding axles pivoted to said body, arms attached to the axle and engaging with the body, and hooks secured to the body for hanging the wheels and handle thereon, said parts being combined substantially as described.

6. In a folding carriage, a sectional hinged body in combination with a spring-frame having its upper ends bent and forming journals having bearings in the sections of said body, substantially as described.

7. In a folding carriage, a sectional hinged body in combination with a spring-frame having its upper ends bent and forming journals having bearings in the sections of said body, and axles pivotally connected to the said frame, substantially as described.

8. A folding carriage consisting of a hinged sectional body with flexible sides, spring-frame with upper ends bent inwardly forming journals having bearings in the under side of the body, arms rising from the spring-frame and having loops at their upper ends, and rods secured to the sides of the sections of the body and having looped ends forming stops, said parts being combined substantially as and for the purpose set forth.

JOHN F. FLAD.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. JENNINGS.