No. 690,543. Patented Jan. 7, 1902.

J. A. WILSON.

FOLDING BUGGY TOP.

(Application filed Apr. 6, 1901.)

(No Model.)

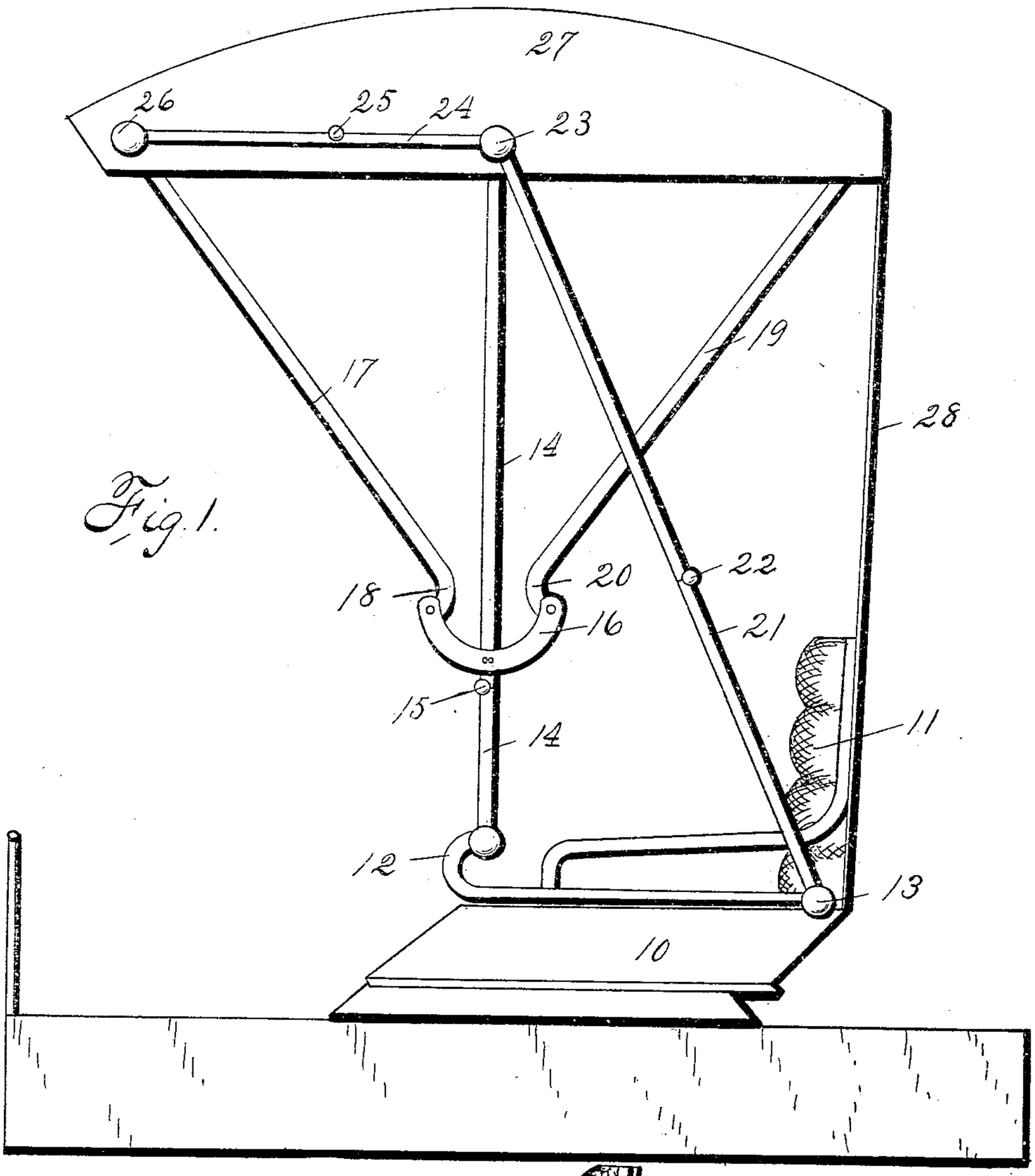

Fig. 1.

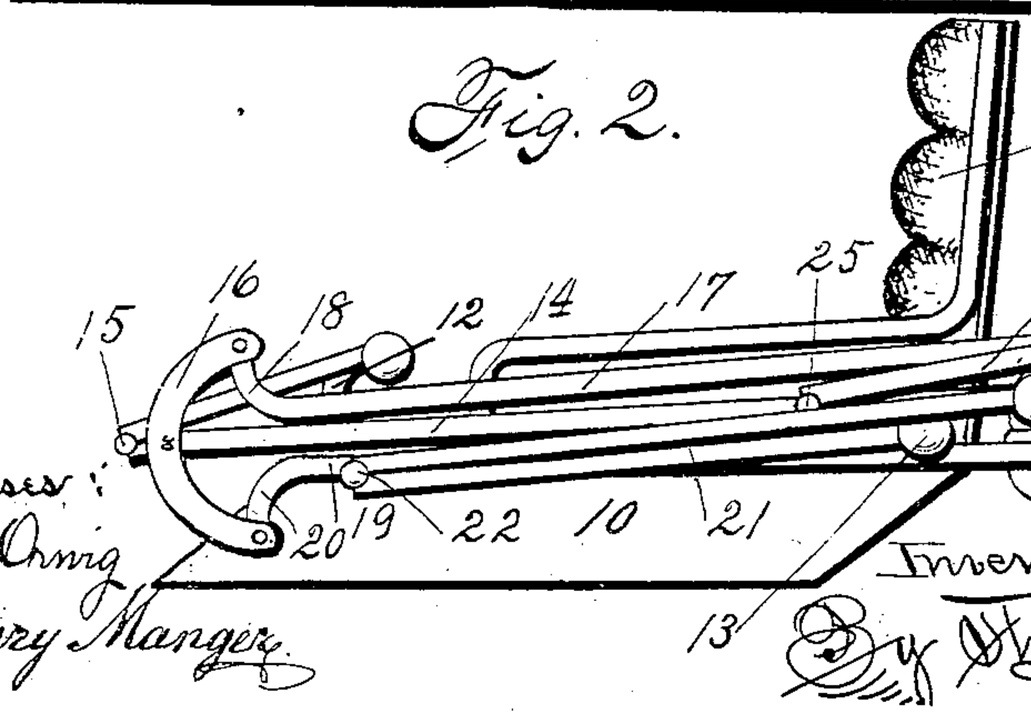

Fig. 2.

Witnesses:
L. H. Orwig
Henry Manger.

Inventor: John A. Wilson, Jr.
By Thomas G. Orwig, Attorney.

UNITED STATES PATENT OFFICE.

JOHN A. WILSON, OF DES MOINES, IOWA.

FOLDING BUGGY-TOP.

SPECIFICATION forming part of Letters Patent No. 690,543, dated January 7, 1902.

Application filed April 6, 1901. Serial No. 54,612. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. WILSON, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented certain new and useful Improvements in Folding Buggy-Tops, of which the following is a specification.

The main object of my invention is to construct and combine the folding top of a vehicle having a fixed seat and a fixed seat-back in such a manner that the top portions of the bows in the top and the cover thereon can be first folded rearward and downward to pass behind the fixed seat-back and then farther downward and moved forward and retained compactly and close to the fixed back in such a manner that the top will be practically hid behind the fixed seat-back.

Heretofore a bow having joints in its end portions has been pivoted to supports at the sides and at some distance from the front of a seat that had no back and rigid fulcrum-braces pivoted to supports at the ends and rear of the seat and to the jointed bow at points above the joints in such a manner that in folding the top downward it would at the same time from the start of the downward motion also simultaneously move forward and yet remain extended in rear of the seat, so that if there was a fixed back to the seat it would remain distant from the back. A top has also been connected with a seat having a hinged back in such a manner that by first folding the hinged back forward the top could then be folded in rear of the back and retained in close contact behind the hinged back when the back was replaced into its normal upright position at the rear of the seat.

My invention consists in the construction, arrangement, and combination of the different parts of a folding top with a seat having a fixed back, so that in the downward folding motion of the top it will be first swung rearward behind the fixed seat-back and during the continuance of the downward motion, after it is behind the seat, moved forward and close to the rear of the fixed back, an important desideratum in the art that has in no instance been so advantageously obtained prior to my invention.

In the accompanying drawings, Figure 1 shows the construction, arrangement, and combination of all the parts and the top in its elevated position. Fig. 2 shows the top down and its main portion folded compactly in rear of and close to the fixed back of the seat and the jointed positions of the pivoted bow and the cross-piece connecting the front and rear bows therewith projected forward from the ends of the seat and in positions to serve as fenders.

The reference-numeral 10 designates the seat, and 11 the fixed back. On each side and front is a fixed gooseneck 12, and fixed to each side of the seat near its rear end is a stud 13, and pivotally connected to the gooseneck 12 is a bow 14, having a rule-joint 15 therein a short distance from the ends, said rule-joint being arranged to fold rearwardly. Fixed to the bow 14 above this joint is a cross-piece 16, preferably semicircular, projecting forwardly and rearwardly. Pivoted to the forward end of the cross-piece 16 is a bow 17, having a bend at 18 of such shape that when the bow 17 is moved toward the bow 14 said bows will overlie close together and parallel with each other. Pivoted to the rear end of the cross-piece 16 is a bow 19, having a bend therein at 20, so shaped that when the top is folded the three bows on each side will overlie each other in vertical planes. Pivoted to the stud 13 is a stay 21, having a rule-joint 22 therein, that permits the stay to bend forward after the top has been lowered behind the fixed back of the seat. The upper end of the stay is pivoted to the stud 23, attached to the bow 14 near its top. Pivoted to the stud 23 is a stay 24, having a rule-joint 25, arranged to permit the stay to fold downwardly. The front end of this stay 24 is pivoted to a stud 26 on the front bow 17.

I am aware that bows and braces have been provided with joints to bend forward, but my manner of arranging and combining a jointed bow and jointed braces to allow a folding top to be automatically moved forward relative to the fixed back of a seat and fixed studs that project from the rear portions of the sides of the seat to support the weight of the top when down is new and greatly advantageous.

The reference-numeral 27 designates a flexible cover fixed to the tops of the bows, and 28 indicates a flexible portion of a back attached to the top 27 and to the back of the fixed seat 11.

Having thus described the purpose of my invention and the construction, arrangement, and combination of all the parts, the practical operation and utility thereof will be readily understood by persons familiar with the art to which it pertains, and what I claim as new, and desire to secure by Letters Patent, is—

1. In a folding top for vehicles, a bow having joints in its end portions and the ends pivotally connected with the front ends of the parallel sides of a seat, a semicircular cross-piece fixed to each end portion of the bow above the joint, a bow curved forward at its ends pivoted at said ends to the front ends of said fixed cross-pieces, a bow pivoted at its ends to the rear ends of the said cross-piece, jointed braces pivoted to the rear ends of the parallel sides of the seat and to the jointed bow and jointed braces pivoted to the top portions of the front bow and the center bow, arranged and combined to operate in the manner set forth for the purposes stated.

2. In a folding top for vehicles, a bow having joints in its end portions and the ends pivotally connected with the front ends of the parallel sides of a seat, a cross-piece fixed to each end portion of the bow above the joint, a bow pivoted at its ends to the front ends of said fixed cross-pieces, a bow pivoted at its ends to the rear ends of the said cross-pieces, jointed braces pivoted to the rear ends of the parallel sides of the seat and to the jointed bow and jointed braces pivoted to the top portions of the front bow and the center bow, arranged and combined to operate in the manner set forth for the purposes stated.

3. In a folding top for vehicles, in combination with a seat having a fixed back and supports for bows projecting from the rear portions of the sides of the seat, a bow provided with joints in its end portions to bend forward pivotally connected at its ends with the front portions or the sides of a seat and braces having joints to bend forward pivotally connected with said jointed bow and the fixed bow-supports at the rear portions of the parallel sides of the seat, to operate in the manner set forth for the purposes stated.

4. A folding top for vehicles comprising a bow pivoted at its ends to the fronts of the parallel sides of a seat having a fixed back and provided with joints for bending toward the fixed seat, cross-heads fixed to the jointed bow above its joints, a bow curved rearwardly at its ends pivoted to the rear ends of the fixed cross-pieces, a bow curved forwardly at its ends pivoted to the front ends of the cross-piece, braces pivoted to the rear ends of the sides of the seat and provided with joints for bending forward, braces pivoted to the top end portion of the jointed bow and to the top end portions of the front bow and provided with joints to bend downward and a flexible covering material fixed to the bows and the fixed back of the seat, arranged and combined to operate in the manner set forth for the purposes stated.

JOHN A. WILSON.

Witnesses:
ELVA G. WILCOX,
THOMAS G. ORWIG.