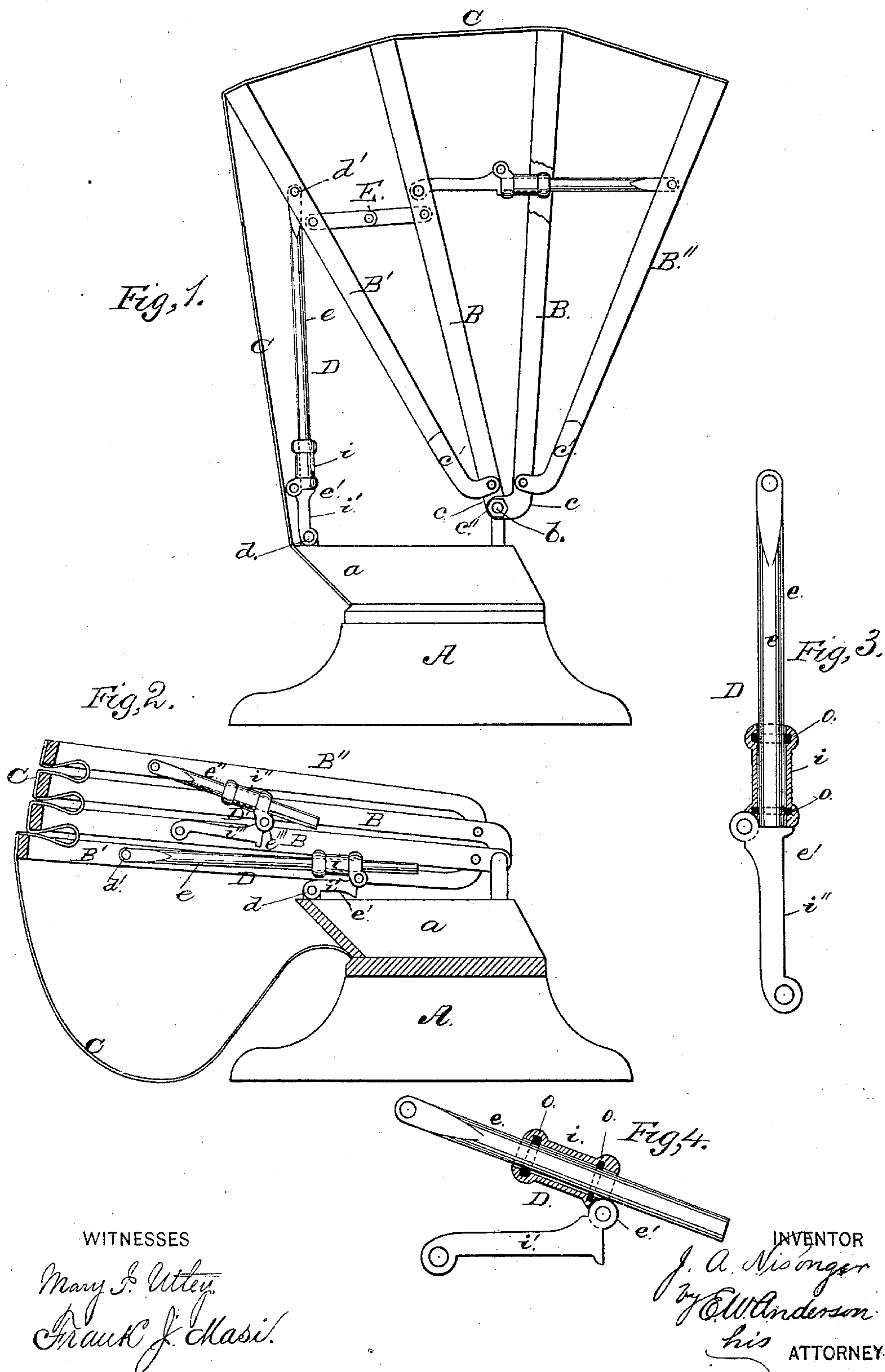


(No Model.)

J. A. NISONGER.
Top Joint for Vehicles.

No. 232,748.

Patented Sept. 28, 1880.



UNITED STATES PATENT OFFICE.

JAMES A. NISONGER, OF GOSHEN, INDIANA.

TOP-JOINT FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 232,748, dated September 28, 1880.

Application filed March 10, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. NISONGER, of Goshen, in the county of Elkhart and State of Indiana, have invented a new and valuable
5 Improvement in Adjustable Sliding Top Joints or Braces for Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the an-
10 nexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my improved brace applied
15 to a buggy with the top extended. Fig. 2 is a similar view of the same with the top folded, and Figs. 3 and 4 are detail views of the brace.

This invention has relation to improvements in folding tops for vehicles generally, but more
20 especially designed for buggies and other similar conveyances.

The nature of the invention consists in a certain novel arrangement of folding braces, as will be hereinafter more fully set forth.

25 In the annexed drawings, the letter A designates a vehicle-seat having the usual seat-rail *a*, having near its front edge the angular metallic arms *b*, to the horizontal branches of which the two center bows, B, of the top are
30 pivoted. These bows are ironed off at *c*, and provided with eyes in the ends of the irons for the reception of the spindle of arms *b*. The front and rear bows, B' B'', have similar
35 irons, *c'*, and are pivoted to the adjacent bows B, the whole canopy-frame thus constructed being secured to the seat by means of a nut,
40 *c''*, applied upon the threaded end of arms *b*.

The irons *c c'* are so constructed that when the bows are swung back to fold the top they
40 do not interfere, but lie snugly the one upon the other. The bows are connected together and to the back of the seat by means of the flexible bands C, that hold the canopy-frame
45 from forward displacement.

Projecting out horizontally from the rear part of the sides of the seat or seat-rails is a
45 horizontal arm, *d*, and from the inner face of the rear bow, B', is a similar arm, *d'*, pivoted to which arms is the rear vertical brace, D.
50 This brace is composed of two sections, *e e'*, the former being a smooth lacquered rod, and

the latter a two-part construction. The parts
55 *i i'* of section *e'* are connected together by a knuckle or knee joint, the section *i* being tubular and the section *i'* solid. The joint is after
the manner of a stop-hinge, and the bearings
of the sections *i i'* against each other are op-
positely beveled, so that when the said brace
is straightened out upon raising the top the
60 sections *e e'* will not be in line with each other, and will cause the brace to be locked. The
section *e* of the brace extends through and has
free endwise movement in the tubular part *i*
of the section *e'*, and its end abuts against the
adjacent end of part *i'* of the said section
65 when the brace is straightened out; but when
the top is folded the parts *i i'* flex the one
upon the other, and the rod-section *e* extends
through the tubular sleeve *i*, allowing the
bows to fold snugly the one upon the other.
70 The folded position of the brace is shown in
Fig. 4.

The two rear bows of the canopy are con-
nected together by the folding braces E, which
being straightened out extend the canopy
75 properly, but, when flexed in lowering and
folding the same, allow the said bows to lie
snugly the one upon the other. The braces
D E are upon the inside of the bows, as are
also the braces D', which extend the remain-
80 ing bows of the top, and consequently the
flexible tilt lies smoothly and snugly upon the
hoops or bows.

The braces D' do not differ in construction
from the braces D, being composed of two sec-
85 tions, *e'' e'''*, the latter being in two parts,
hinged together by a stop-joint, one part be-
ing tubular and the other solid. The section
e'' extends through and moves endwise in part
e''', and when the brace is extended abuts
90 against the end of the solid section *i'''*.

It will be seen that this brace affords a strong
reliable support to the top, it being incapable
of flexing casually, and thereby letting down
the top inopportunely; but when purposely
95 bent allows it to fold snugly and readily.

In order to prevent the lacquer from being
rubbed off of rod *e* the part *i* is provided with
interior rubber rings, *o*, arranged at each end.

What I claim as new, and desire to secure by
100 Letters Patent, is—

1. The folding brace for folding vehicle-tops

consisting of the sections *e e'*, the latter consisting of the tubular part *i* and the solid part *i'*, knuckle-jointed together, and the section *e*, extending through the tubular part *i*, and end-
5 wise movable through the same, substantially as specified.

2. A folding brace for vehicle-tops consisting of the rod-section *e* and the two-part flexible section *e'*, having a solid and a tubular
10 part, and the section *e*, socketed in the tubular part of the tubular section, and endwise movable through the same, substantially as specified.

3. A folding brace for vehicle-tops consisting of the knuckle-jointed section *e'* and the section *e*, endwise movable through the adjacent branch of the section *e*, substantially
15 as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES A. NISONGER.

Witnesses:

HENRY V. CURTIS,
UTLEY R. CURTIS.