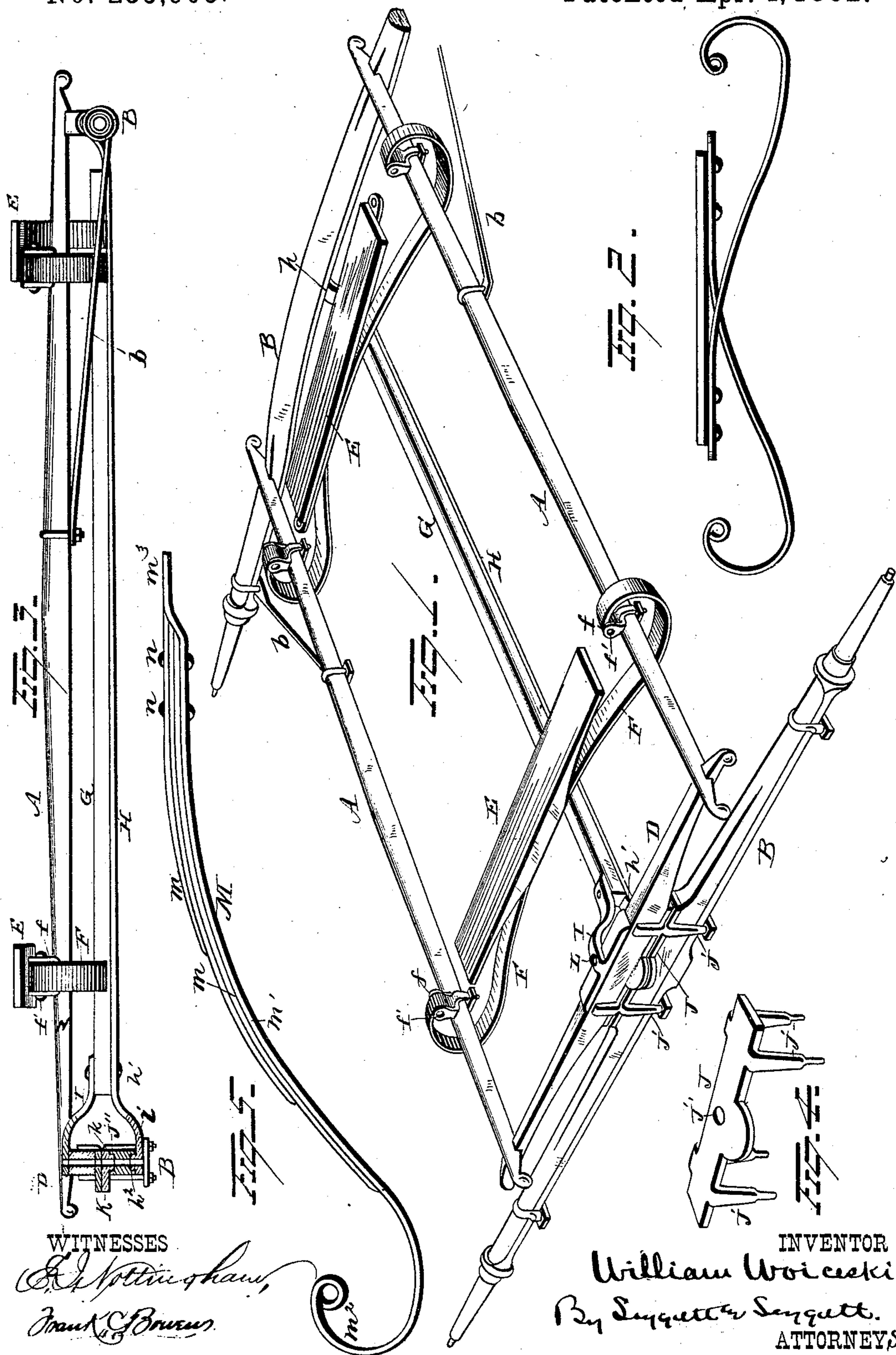


W. WOICESKI.
SPRING FOR VEHICLES.

Patented Apr. 4, 1882.



UNITED STATES PATENT OFFICE.

WILLIAM WOICESKI, OF ATLANTA, ILLINOIS.

SPRING FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 255,903, dated April 4, 1882.

Application filed January 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WOICESKI, of Atlanta, in the county of Logan and State of Illinois, have invented certain new and useful
5 Improvements in Road-Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to road-wagons, particularly to that class known as "side-bar
15 wagons."

The invention consists in the features of construction hereinafter set forth, and pointed out in the claim.

In the drawings, Figure 1 is a perspective
20 view of the running-gear of a vehicle provided with my invention. Fig. 2 is a modification. Fig. 3 is a side elevation of the same, partly in section. Fig. 4 is a detail view of the fifth-wheel plate, and Fig. 5 shows my improved
25 form of half-spring.

A A represent the side bars of the wagon; B B, the axles; *b b*, the hind hounds; D, the front cross-bar, and E E the bolsters.

F represents a semi-elliptic spring secured
30 centrally to the under side of the front bolster, and having the ends respectively bent under the side bars, and then upwardly and inwardly, as shown, to be attached to clips *f f* on the top of the side bars by pivots *f' f'*. By this arrangement and mode of attaching the springs
35 the tendency of the latter, when heavy pressure is applied to force the side bars outwardly, as is the case where the springs are rigidly secured to the side bar, is avoided. Moreover,
40 a full and ample spring-bearing for the wagon-body is obtained.

In the modification shown in Fig. 2 two separate springs are used, arranged in parallel horizontal planes, and secured pivotally in
45 clips upon the top of the bars A A.

G represents a central longitudinal perch secured to a brace, H, the latter being bent upwardly at its rear end, *h*, and secured to the rear axle, while its opposite end, *h'*, is bent
50 downwardly to pass under the front axle, and is provided with a stud or projection, *h²*, adapted to fit a socket, *i*, on the under side of the front

axle and serve as a protector for the king-bolt of the wagon. An auxiliary brace, I, extends from the upper side of the front end of the
55 perch G to the upper side of the cross-bar D, where it is secured by a bolt or otherwise. This construction affords a secure and reliable connection of the central perch to the axles in connection with the king-bolt, and, as above
60 stated, protects and prevents undue wear upon the bolt.

The fifth-wheel plate J is secured to the upper side of the front axle by means of clips *j j*, secured firmly on the under side of the said
65 axle. This plate is provided with a socket, *j'*, adapted to receive a stud, *k*, of the fifth-wheel K.

It will be observed that by this construction all boring of the axle to receive bolts for the
70 fifth-wheel plate and consequent weakening of the axle are avoided, and a secure connection of the parts is obtained without undue expense.

In Fig. 5 is represented my improved half-spring M. It consists of a series of leaves, *m*
75 and *m'*, secured together by bolts *n*. The under or lower leaf, *m'*, is bent or curved upwardly at its outer end, *m²*, while its opposite end, *m³*, is bent upwardly to cover the ends of the other leaves of the spring, and then inward in the
80 same, or about the same, horizontal plane as the upper leaf.

This construction affords a spring of superior strength, and one which may be readily applied to a vehicle.

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

A half-spring for vehicles, consisting of a series of lapped leaves, the under one of which
90 is bent outwardly at one end and adapted to be secured to a side bar of a vehicle, while its inner end is bent upwardly, covering the ends of the upper leaves, and then bent inwardly to adapt it to be secured to the gear of a ve-
95 hicle, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of November, 1881.

WILLIAM WOICESKI.

Witnesses:

J. W. TODD,
C. W. LOGUE.