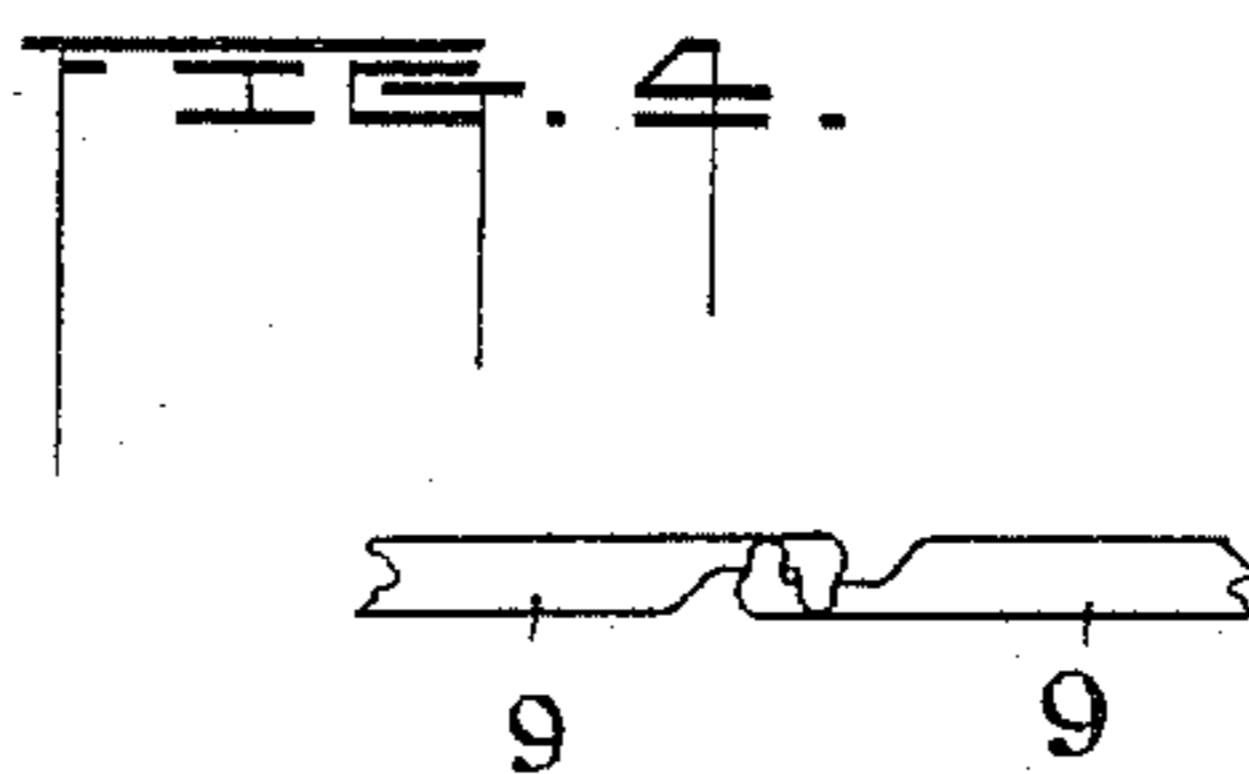
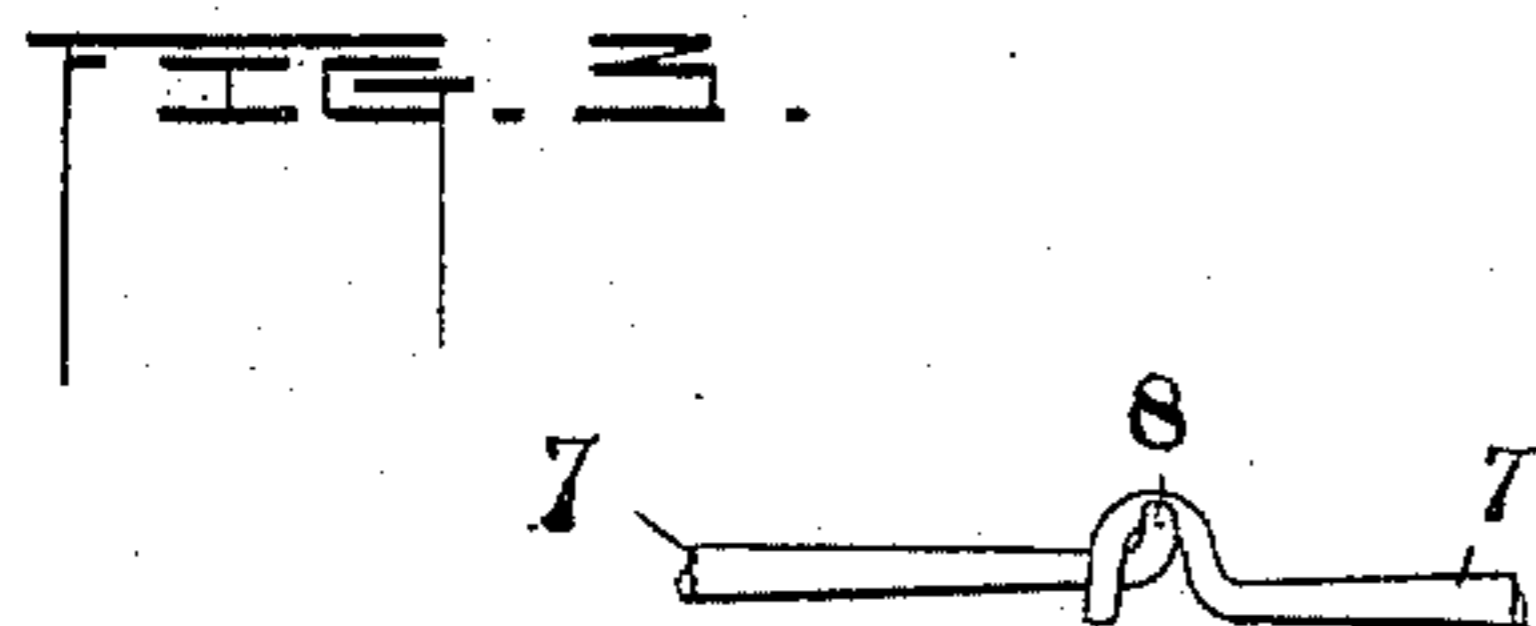
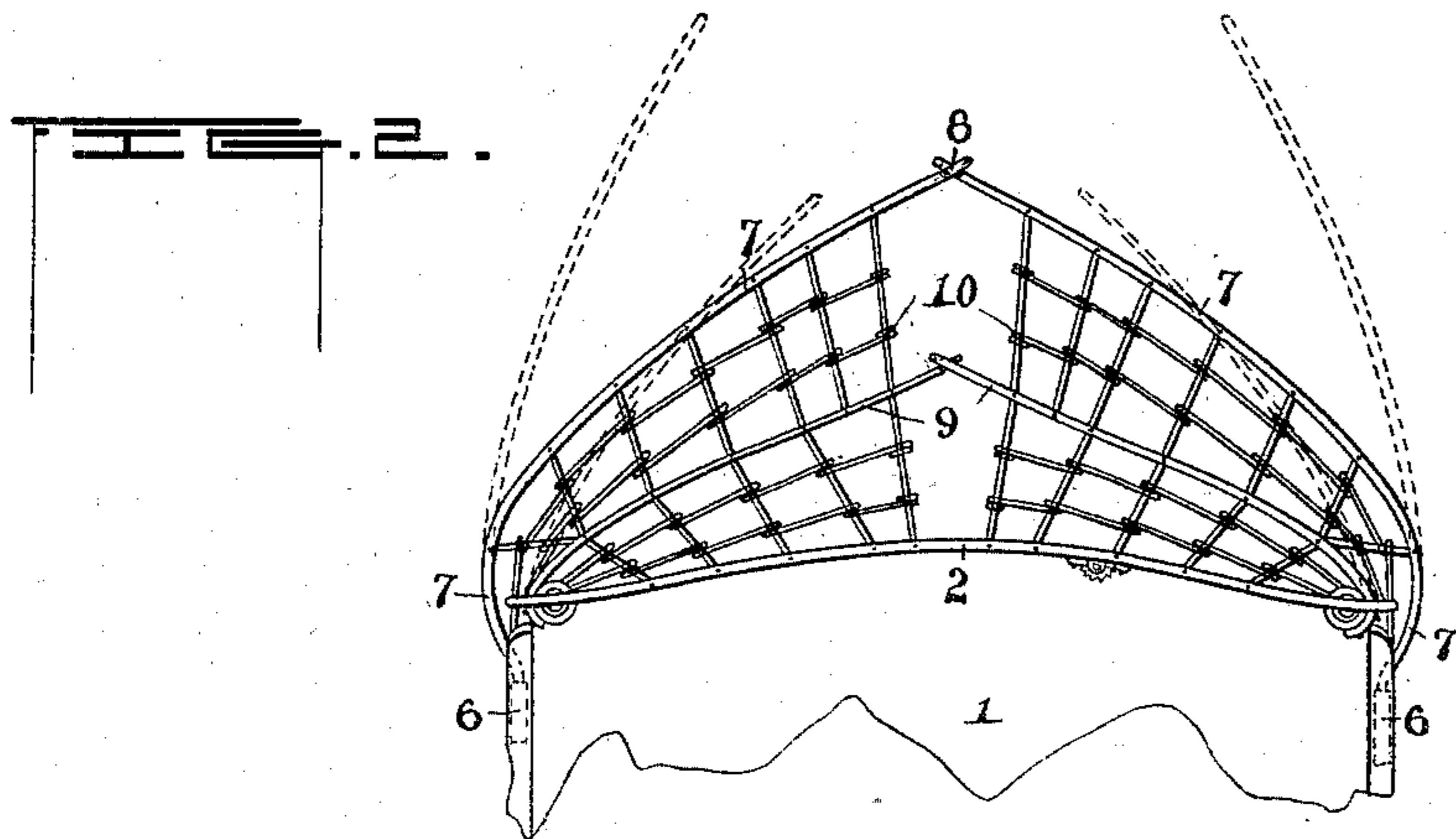
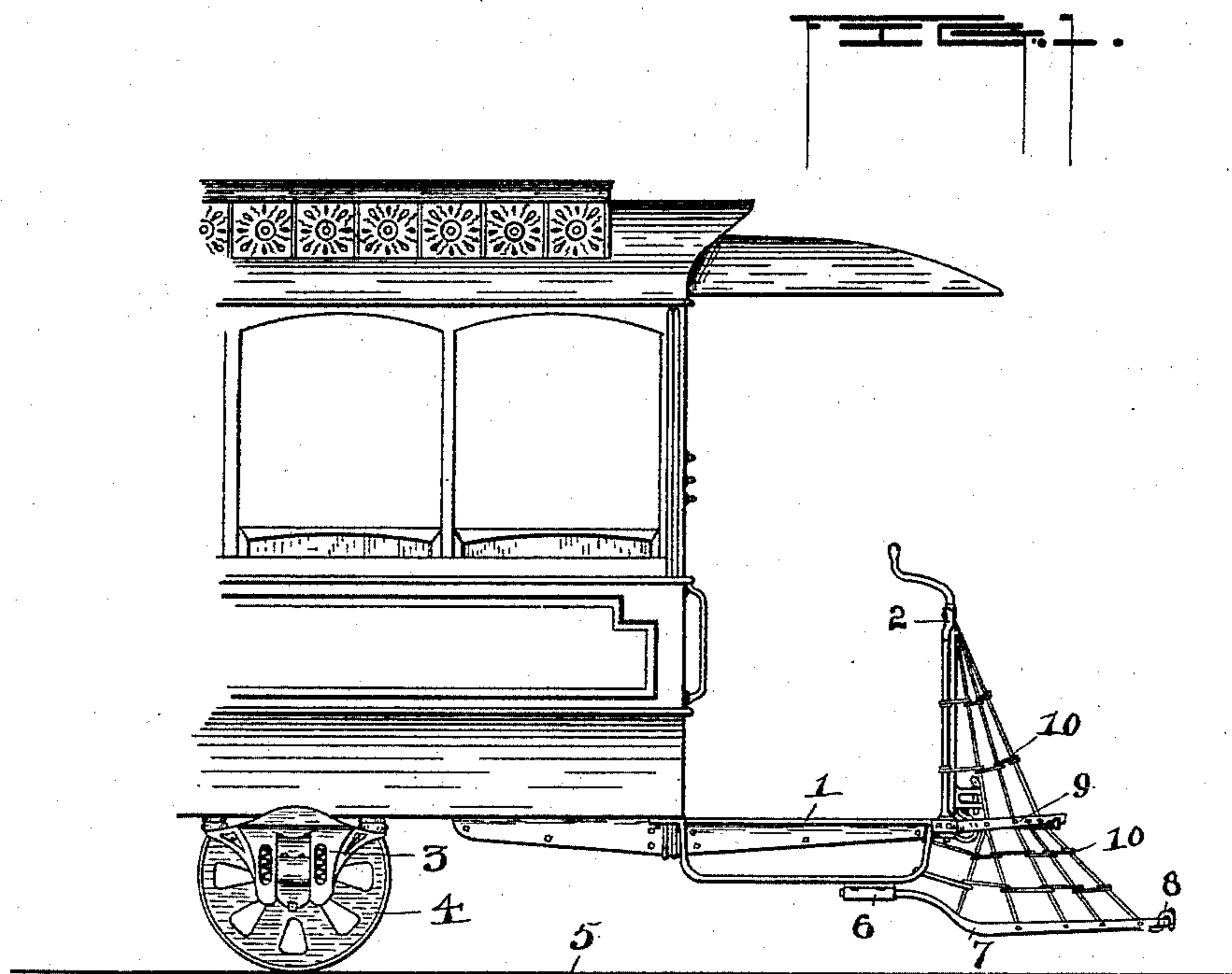


(No Model.)

J. NAGELE.  
CAR FENDER.

No. 492,423.

Patented Feb. 28, 1893.



WITNESSES

Arch. M. Catlin.  
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INVENTOR

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by  
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Atty

# UNITED STATES PATENT OFFICE.

JOHN NAGELE, OF CLARENDON, ARKANSAS, ASSIGNOR OF ONE-HALF TO  
MIDDLETON J. MANNING, OF SAME PLACE.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 492,423, dated February 28, 1893.

Application filed March 24, 1892. Serial No. 426,289. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN NAGELE, a resident of Clarendon, in the county of Monroe and State of Arkansas, have invented certain  
5 new and useful Improvements in Car-Fenders; 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 pertains to make and use the  
10 same.

The invention relates to fenders for vehicles and has for its object to provide efficient means for preventing persons or objects falling under the wheels of the car and it consists in the construction hereinafter described and particularly pointed out.

In the accompanying drawings: Figure 1 is a side elevation of my invention. Fig. 2 is a plan of the same; and Figs. 3 and 4 are enlarged details.

Numeral 1 indicates a platform or driver's stand, 2 a railing or guard supported on the same, 3 a part of the running gear frame or truck, 4 a wheel and 5 a track. These devices may be of any desired variety and do not constitute the present invention.

At 6 on each side of the car is firmly secured a spring 7 which is preferably bent downwardly and outwardly in front of its point of attachment and extended forwardly to a point in advance of the car platform. The springs when not under compression are approximately parallel with each other and with the car track and situated in vertical planes  
35 near the track as indicated in dotted lines in the plan view of the drawings. In use their free ends are brought together and secured by a catch or fastening 8 of such character that it is readily released, as for example by a blow  
40 or pressure on the outside of one of the springs. 9 indicates somewhat similar springs secured to the platform and having their front ends detachably fastened together in like manner. The upper springs are situated within the  
45 lower ones as represented.

10 denotes wire or rope netting or cloth or other equivalent secured to such spring and to the guard rail of the platform as shown.

In operation if any person or object is struck  
50 by the springs or by either of them or by the net,

or if anything falls or is thrown against them the catch or catches 8 are thereby released by the consequent inward movement of the end of the spring or springs which movement puts the springs under a higher compression and  
55 by their resilient force the object is thrown aside from the track. The net prevents anything from passing between or over the springs and a blow or pressure on said net will also release one or both pair of springs so that they  
60 will act substantially as described. Thus a person inadvertently stepping in front of a moving car would be pushed or thrown laterally out of the way of the car body and car wheels and the action of the springs would  
65 obviate dangerous concussion. Moreover the net would distribute the momentum of the car over a considerable part of the person and avoid the concentrated blow which might otherwise be received. The spring would operate to some extent without the net. More  
70 than two pair of springs can be employed and if several pairs were used a part of the advantage of the net would be thereby secured. The preferred form however has been illustrated.

The device may be applied to either or both ends of a car and is especially suitable for electric, cable, or steam street cars made up in trains and moving at considerable speed,  
80 there being always danger that an absent minded, feeble or inexperienced passenger will step from the rear of a train in front of one moving in the opposite direction or be thrown or fall under the front of a car as he  
85 steps to the ground from its predecessor, or that he will be overtaken at a crossing or elsewhere.

Having thus described my invention, what I claim is—

1. In a car or like vehicle the safety fender consisting of springs secured rigidly to the car on each side thereof and connected vertically by a net and having their outer ends connected to each other by catches adapted to  
95 be automatically disengaged by exterior pressure on either spring; substantially as set forth.

2. In a car or like vehicle the safety fender consisting of two pair of springs secured rigidly to the car on each side thereof and connected vertically by a net and having their outer ends connected to each other by catches adapted to  
100 be automatically disengaged by exterior pressure on either spring; substantially as set forth.

idly to the car on each side thereof and having their outer ends connected by catches adapted to be automatically disengaged by exterior pressure on either side, corresponding  
5 springs of the said pairs being connected to each other and to the guard rail of the platform by a flexible net; substantially as set forth.

3. In a car fender the combination of the  
10 lower springs secured to the car steps on each side of the car, the upper springs secured to

the platform, both pairs being detachably connected at their outer ends, and a net connecting said springs to each other and to the step and guard rail; substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN NAGELE.

Witnesses:

R. J. TORRY,  
J. P. LEE.