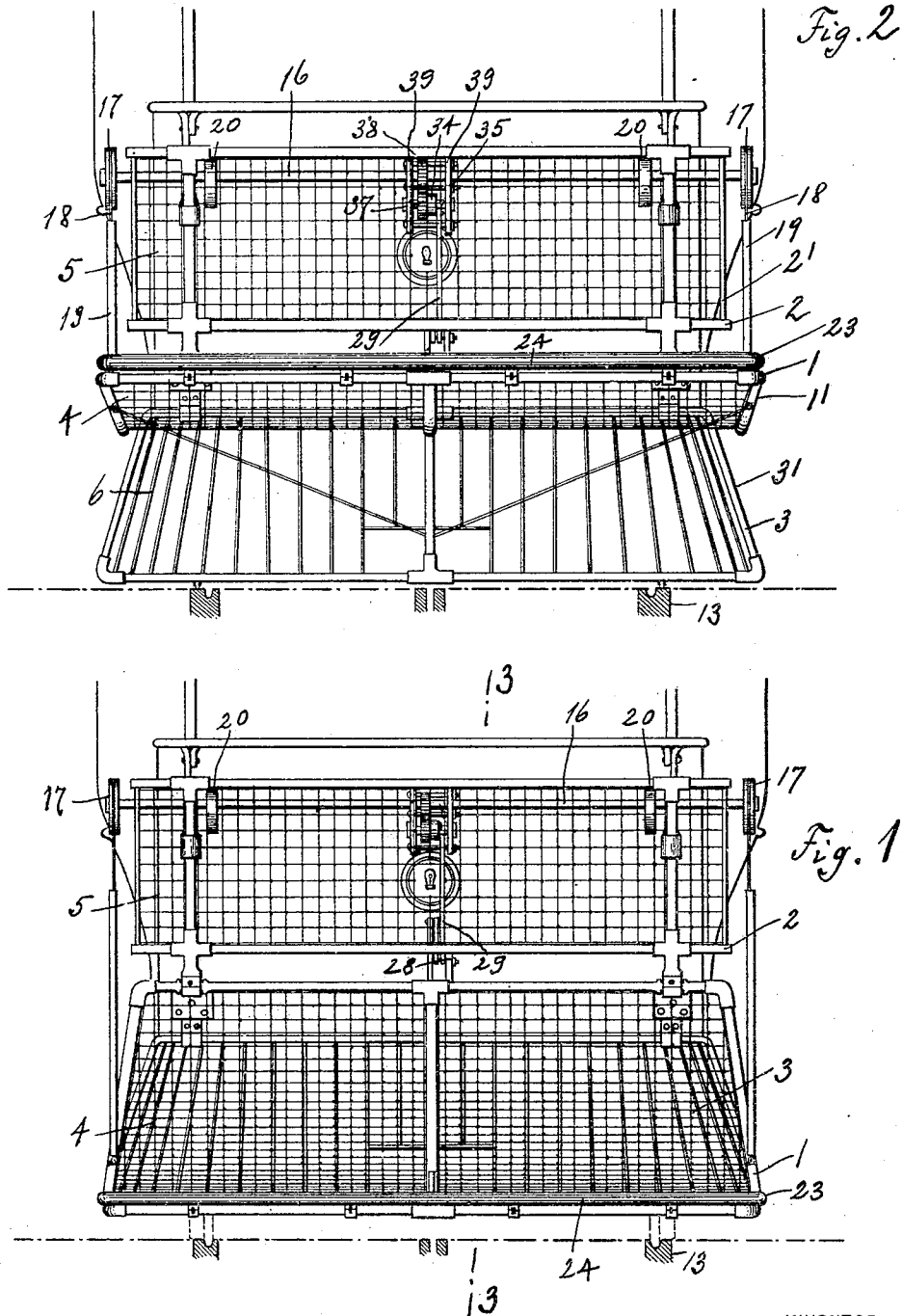


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CAR FENDER.
APPLICATION FILED JUNE 19, 1908.

954,762.

Patented Apr. 12, 1910.

3 SHEETS—SHEET 1.



WITNESSES:

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3 SHEETS—SHEET 2.

Fig. 4

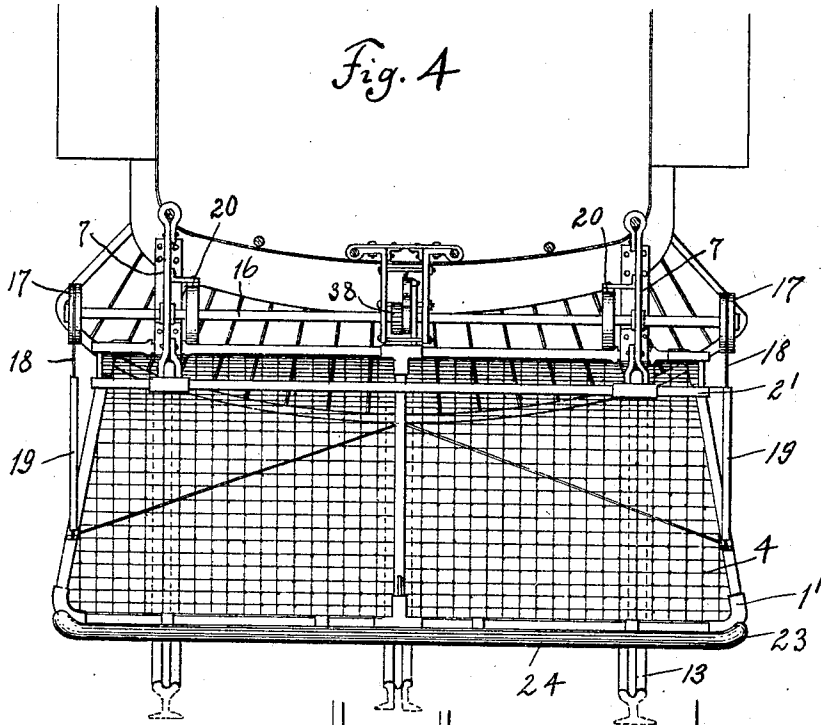
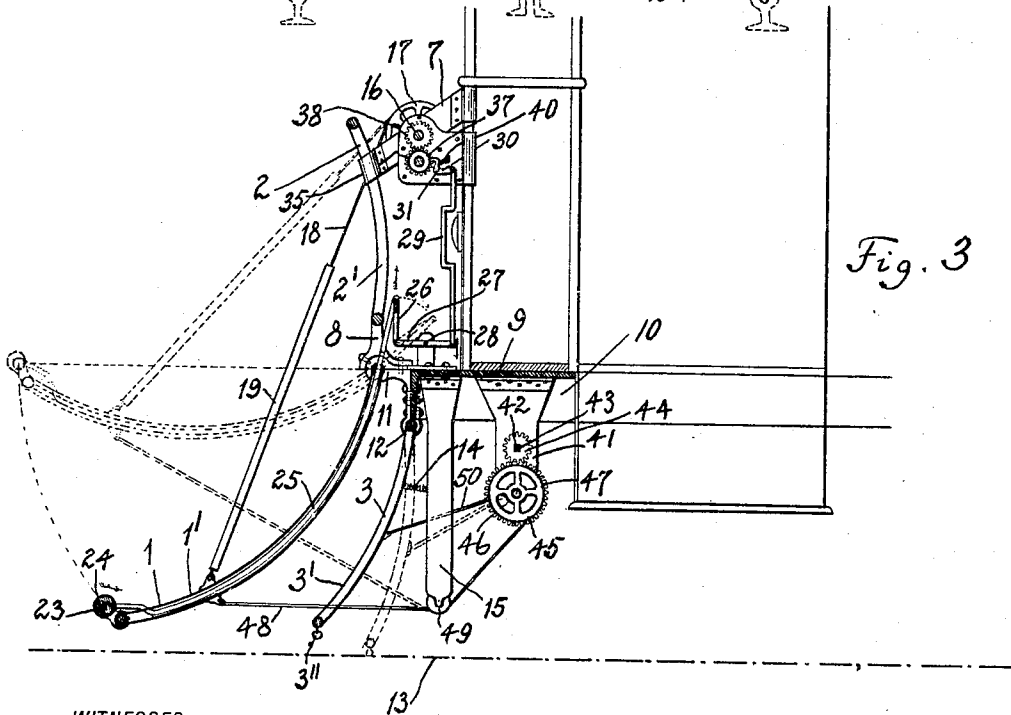


Fig. 3



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3 SHEETS—SHEET 3.

Fig. 6

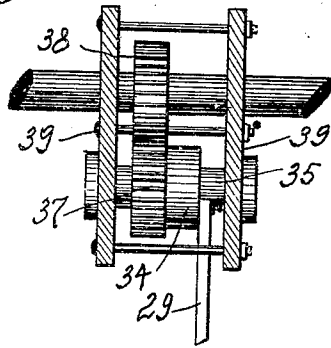


Fig. 5

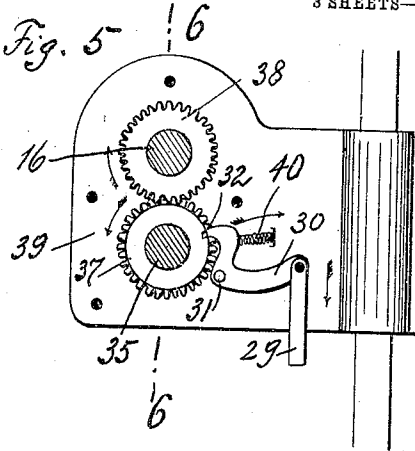


Fig. 9

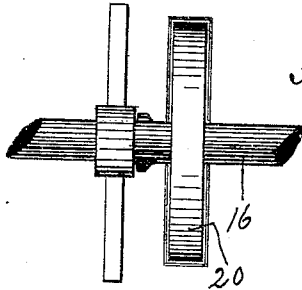


Fig. 8

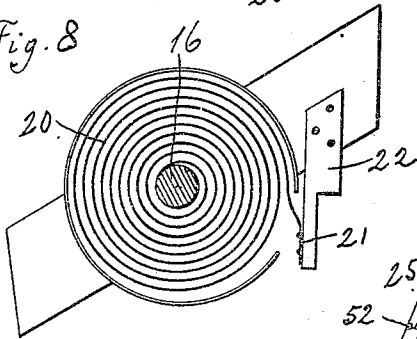
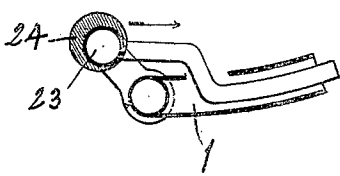
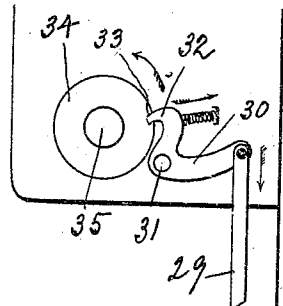


Fig. 7



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UNITED STATES PATENT OFFICE.

FRANK PATAKY, OF NEW YORK, N. Y.

CAR-FENDER.

954,762.

Specification of Letters Patent.

Patented Apr. 12, 1910.

Application filed June 19, 1908. Serial No. 439,459.

To all whom it may concern:

Be it known that I, FRANK PATAKY, a subject of the King of Hungary, and resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification.

The present invention relates to car fenders, and more particularly to automatic fenders.

The object of the invention is to provide a new and improved car fender, which is simple and durable in construction, and arranged to readily pick up any living object or other obstruction in the path of the car automatically.

Broadly speaking, the invention consists of a stationary net, and a plurality of movable frames provided with nets and adapted to be actuated by the person or obstruction in the path of the car, whereby the living object or obstruction is picked up by one of the movable nets.

Means are also provided, whereby one of the movable nets is actuated as soon as the living object or obstruction comes in contact with the same, and another movable net is brought into engagement with the rails so as to prevent the person or obstruction from being injured by the car wheels.

The invention furthermore consists of certain parts and details and combinations of the same, as will be fully described hereinafter and pointed out in the claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the device, as it appears in its normal position, Fig. 2 a similar view of the same as it appears when a living object or an obstruction is picked up. Fig. 3 is a vertical section taken on line 3 of Fig. 1, and Fig. 4 is a plan view of the device. Fig. 5 is a side elevation of a detail of the fender controlling means, and Fig. 6 is a section taken on line 6, 6 of Fig. 5. Fig. 7 is a detail of construction, and Figs. 8 and 9 are details of the springs, operating the fender.

The car fender consists in the present case of three guards 1, 2 and 3, each of which is made in the form of a segment and formed with strong frames 1', 2' and 3', on which are stretched or secured wire nets 4, 5 and 6, respectively. The guard 2 is fixedly secured in front of the car and above the platform

of the same by means of brackets 7, 7 upon its upper end, and brackets 8, 8 upon its lower end, which latter brackets are supported by L-shaped members 9, 9 attached to the cross beam of the platform 10 of the car. The movable frame 1' is journaled in bearings 11, 11, carried by the L-shaped members 9, whereby this frame may be swung in its bearings upward by means, which will be hereinafter more fully described. The movable frame 3' is in a similar manner journaled in bearings 12, 12, which are attached to the members 9, and is normally kept in the position shown in Fig. 3 of the drawings, that is out of engagement with the rails 13 by means of a spring 14, engaging the frame 3' and the side brackets 15, 15, secured to the platform of the car.

The operating shaft of the apparatus is indicated at 16, and journaled in the brackets 7, 7. This shaft carries rigidly on its ends grooved pulleys 17, 17, to which are attached wires or ropes 18, 18, secured to the connecting rods 19, 19, which latter are pivotally connected to the frame 1'. It will be easily seen that when the main shaft 16 of the apparatus is kept against rotation, as will hereinafter be described, the flexible connections between the pulleys 17 and the frame 1' will keep the latter in a given position, depending upon the length of the rope wound around said pulleys. To the shaft 16 are furthermore secured springs, such as, for instance, spiral springs 20, 20, the other end of each of which is secured at 21 to a lug 22, carried by the brackets 7. The purpose of these springs will be hereinafter explained.

The frame 1' carries on its lower end a rod 23, provided with a resilient covering 24, which rod is pivotally connected with the frame 1' and is normally kept at a height of about four or five inches from the top of the rails. This rod 23 actuates the swinging frame 1' by means of a connecting rod 25, engaging an arm 26, which is pivotally secured to a two armed lever 27, fulcrumed at 28, and engaging a connecting arm 29, pivoted to a bell crank 30, fulcrumed at 31. This bell crank is provided with a nose 32, adapted to engage a notch 33 of a disk 34, upon the shaft 35 of which is mounted a gear 37 in mesh with a gear 38, fixedly secured to the main shaft 16 of the apparatus. The shaft 35 is rotatably arranged in bearings 39, 39, carried by the car. A spring tends to bring the nose 32 into engagement

with the notch 33 of the disk 34, when the latter is rotated. Brackets 41, 41 are furthermore carried by the platform of the car. In these brackets is journaled a shaft 42, 5 provided with a squared end 43. On this shaft is arranged a pinion 44, in mesh with a gear 45, the shaft 46 of which is rotatably arranged in the brackets 41 and carries a grooved pulley 47, to which is secured a rope 10 or wire 48, running over a pulley 49 and connected to the frame 1'. Upon the pulley 47 is wound, in an opposite direction to the direction in which the wire or rope 48 is wound, a wire or rope 50 and connected to 15 the frame 3'.

The operation of the device is as follows: Assuming that the frames 1' and 3' are in the positions shown in dotted lines in Fig. 3 of the drawings, that is frame 1' is in its 20 elevated position and frame 3' in its lower position, whereby the wheels 3'' will engage the track, it is obvious that in order that the device should be operative, frame 1' should be brought in its lowermost position and frame 3' in its uppermost position. 25 For this purpose the squared end 43 of the shaft 42 is rotated, for instance, by means of a socket wrench, whereby the flexible connections 48 and 50 are wound up on the pulley 47, bringing thus the frames 1' and 30 3' into the desired positions, and at the same time turning by means of connections 18 and 19 and pulleys 17 the main shaft 16, whereby the springs 20 are wound up and 35 thus nose 32 is forced by means of spring 40 into the notch 33 of the disk 34. The spring being wound up, the shaft is kept under the tension of the same and thus the device is ready for operation. When now a living 40 object or an obstruction in the path of the car comes in contact with the rubber covered bar 23, the latter will be swung backward and will by means of connections, hereinbefore described, disengage the nose 45 32 of the bell crank 30 with the notch 33 of the disk 34, whereby the springs 20 will be free to act. The flexible connections 18 are thereby wound up upon the pulley 17, bringing thus the frame 1' into its elevated position, 50 picking thereby the living object or other obstruction in the path of the car and retaining the same until the car is brought to a standstill. At the same time the pulley 47 will wind up the flexible connection 50, 55 and bring thus the frame 3' into its lower position. This is necessary in order to prevent the object coming in contact with the

wheels of the car, if, for any reason, it should not be picked up by the frame 1'. Normally a person will fall onto the frame 1' for the simple reason that the rubber 60 covering 24 hits the legs at a height of about four or five inches from the heels, thus imparting to the person a tendency to fall back and onto the frame 1'. 65

The frame 1' may be swung into a substantially vertical position against the frame 2'. For this purpose the connecting rod 25 is divided at 51 (Fig. 7). The parts 70 are hinged together by a hinge 52, and the connection is made a rigid one by a spring 53. When it is desired to swing the frame upward, the spring is swung out of engagement with the rod section 25', whereby the frame 1' may be freely swung into a vertical position. 75

What I claim is:

1. In a car fender, the combination with a support, of a main guard oscillatably supported thereby, an auxiliary guard carried 80 in a similar manner by said support, a shaft, a plurality of springs adapted to rock said shaft, flexible connections between said shaft and said main guard, flexible connections between said main and auxiliary guards, 85 means for arresting said shaft against rotation, and means adapted to actuate said arresting means, whereby said guards are operated simultaneously.

2. In a car fender, the combination with 90 a support, of a main guard oscillatably supported thereby, an auxiliary guard carried in a similar manner by said support, a main shaft, a plurality of springs adapted to rock said shaft, flexible connections between said 95 shaft and said main guard, means for arresting said shaft against rotation, a secondary shaft, connections between said main guard and said secondary shaft, connections between said auxiliary guard and said secondary shaft, a rod pivotally connected to 100 said main guard, a plurality of connecting rods between said first rod and the shaft arresting means, and means operatively connected to said secondary shaft for bringing 105 said main shaft under the tension of said springs so as to be ready to act.

Signed at New York, in the county of New York and State of New York, this 13th day of June, A. D. 1908.

FRANK PATAKY.

Witnesses:

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S. BIRNBAUM.