July 14, 1931. J. J. CAHILL ET AL 1,814,664

FIRE HYDRANT GUARD

Filed Dec. 16, 1929

Fig. 1.

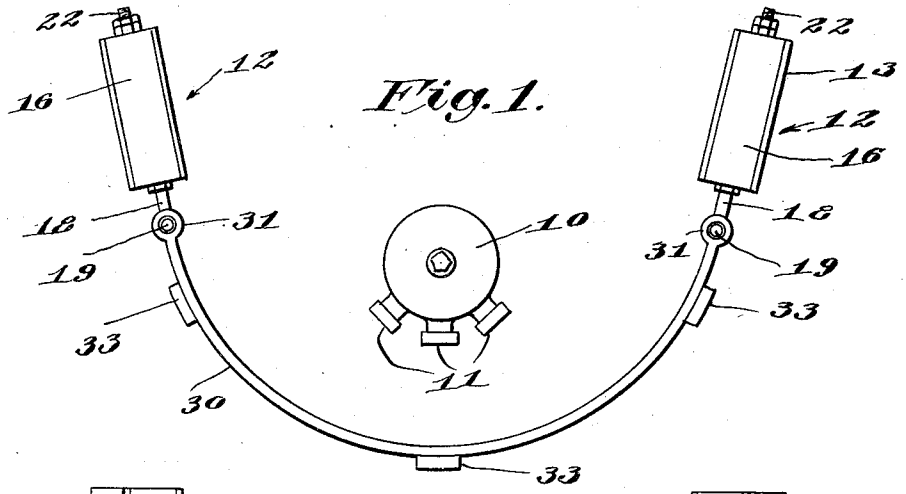


Fig. 2.

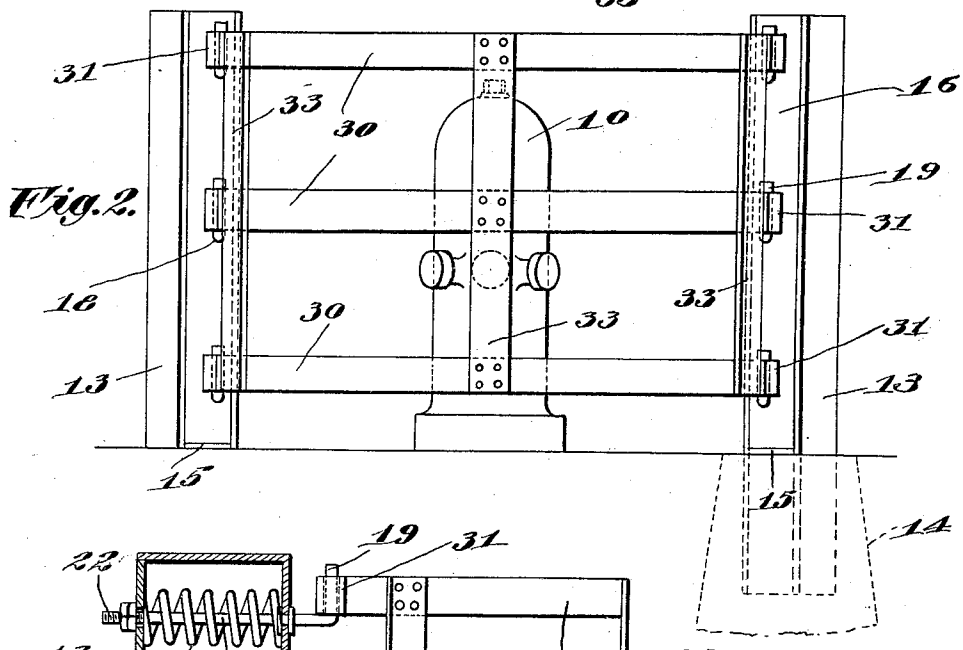
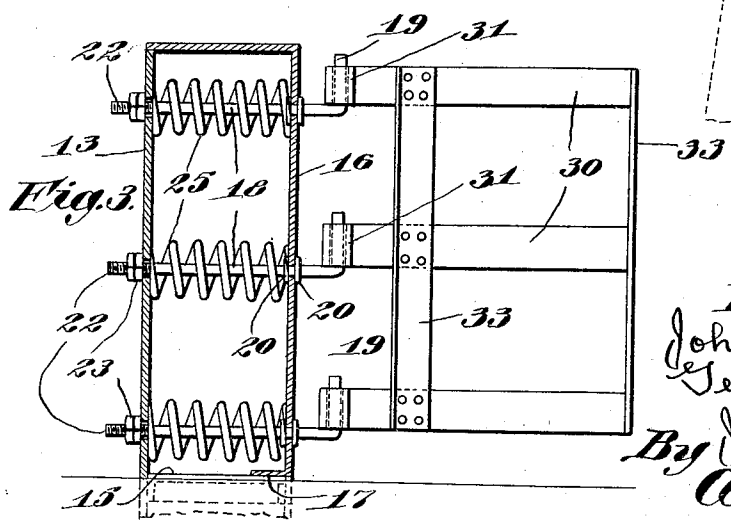


Fig. 3.



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UNITED STATES PATENT OFFICE

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FIRE-HYDRANT GUARD

Application filed December 16, 1929. Serial No. 414,434.

Our present invention relates to guards and more particularly to a guard for fire-hydrants for the prevention of damage to the hydrant by accidental contact with vehicles etc.

Fire-hydrants, as commonly used on sidewalks adjacent the curb consist of a cast-iron housing which is set in a concrete bed in the ground and which surrounds the valve rod which opens and closes the water pipes below the surface of the ground. Hydrants are usually placed apart at intervals varying in distance according to the congestion of the community and fire hazards of the particular location, and occasionally they are the victims of accident due to collision with motor vehicles that accidently run into them and break the casings causing much inconvenience and actual fire hazard as it is necessary to shut off the water supply while repairs are being made. Replacing one of these hydrant casings is not a simple matter as many hours work is necessary not to mention the heavy expense to the town or city, and during this time that particular locality is without fire protection, and this is especially true where hydrants are located a considerable distance apart. Our present invention is designed to obviate this difficulty.

Therefore, our principal object is an improved guard for fire-hydrants and the like;

Another object is a guard for fire-hydrants which is of a resilient character;

Another object is a guard of the character described which may be removed instantly and easily when it is necessary for the fire department to make use of the hydrant, as in the case of fire in the locality.

In the drawings illustrating the preferred embodiment of our invention,

Fig. 1 is a plan view of a hydrant with a guard around it;

Fig. 2 is a front elevation thereof; and

Fig. 3 is a side elevation thereof, but showing the bumper partially in cross-section.

Referring to the drawings, 10 indicates a fire-hydrant somewhat in diagrammatic form and having a series of water connections 11 located about the casing. These water connections 11 may vary in position up to ninety degrees from the center, the present showing being set at forty-five degrees. At either side of the hydrant 10 at a point toward the rear are located bumpers 12, the outer casing of which is comprised of a channel iron 13 anchored in a concrete base 14 imbedded in the ground and of sufficient depth to insure rigidity against a heavy side thrust. At the ground line of the channel 13 and connected to the channel 13 is small transverse channel 15 upon which rests and slides an inverted angle plate 16 having an inturned foot piece 17 adapted to rest and slide upon the small channel 15, the top of said angle plate 16 being adapted to slide over the back of the channel 13 that portion of the channel 13 being cut away for the purpose which allows the outside top edge of the channel 13 to line up with the top surface of the angle plate 16 as indicated in the various views in the drawings.

At intervals along the perpendicular side of the angle plate 16 are located rods 18 having hooked upturned ends 19 located on the outside of the said angle plate 16. Collars 20 are located on either side of the angle plate 16 and around the rods 18 at the point at which they pass through the plate 16, and the entire joint comprising the plate, rods 18, and collars 20 are solidly welded together. The opposite end of the rods 18 pass through enlarged openings located in the back of the channel 13, as shown in Fig. 3, and are provided with threads 22 over which lock nuts 23 are placed. Located between the back of the channel 13 and the inner face of the angle plate 16 are compression springs 25 which are always in compression even when fully expanded as shown in Fig. 3 due to the fact that the nuts 23 maintain them in a normally compressed relation but do not allow them to expand enough to remove the top of the angle plate 16 from its relation with the top of the back of the channel 13. Both of the bumpers 13 located on either side of the hydrant 10 are of like construction as above described.

Attached to the hook members 19 is a guard member comprising a series of semi-circular horizontal bars 30 provided at either end with oversized loops 31 adapted to fit loosely

over the hooks 19. The bars 30 are connected together at either end and the center by vertical straps 33 for the purpose of holding all the bars 30 in rigid assembly together in one unit.

In operation, when a vehicle strikes the bars 30, at their center or to one side of the center, the entire unit presses against the plates 16 causing the plate 16 to slide inward in the channel 13 thereby compressing the springs 25 and easing up the blow which in most cases is sufficient to prevent the hydrant from being damaged as most damage is done from vehicles backing up onto the hydrant or from side swiping it with the body of the vehicles. It will be noted that either one or both of the bumper units 12 may be in use at one time depending on the angle at which the blow comes.

In case of fire and the fire department desiring to use the hydrant to connect up water hose lines, it is only necessary to lift the unit comprising the bars 30 off of the hooks 19 and toss it to one side and to reseat it again after the use of the hydrant is discontinued either operation requiring only a few seconds of time as there are no screws, nuts or other connections to consume time. If desired, a chain may be welded to the bars 30 and attached to the unit 12 which may be the handiest. In actual use, the unit comprising the bars 30 would be too heavy for small children to remove and therefore no annoyance from this source would be likely to occur.

Having thus described our invention what we claim as new, is:

1. In a guard for fire-hydrants and the like, a buffer set at either side and to the rear of said hydrant, said buffers anchored in the ground and set at angles converging toward each other on an apex located on the street side of said hydrant, said buffer further comprising a channel vertically located with the open side adjacent the street, an inverted angle plate adapted to fit in the open side and over the open top of said channel and adapted to slide within said channel the bottom of said plate turned inwardly and adapted to rest and slide on a channel transversally attached within the first said channel at a point adjacent the ground line of said first channel, upturned hook rods rigidly attached to the vertical side of said angle plate adapted to loosely journal through the back of said first channel and provided with check nuts threaded on the ends of said hook rods, internal compression springs located around said rods within said buffer either end of said springs contacting with the back of said first channel member and the said angle plate for the purpose of providing resiliency therebetween, a series of horizontal bumper bars provided with loops at either end adapted to fit over the said hook rods located on the outside of said angle plate, vertical straps located on said bars adapted to bind them into one unit, substantially as shown and described.

2. In a guard for fire-hydrants and the like comprising a series of semi-circular horizontal bars partially surrounding said hydrant, buffers comprising vertically located channels located in the ground to the rear and at one side of said hydrant, said channel adapted to receive a compressible plate maintained in compression by means of compression springs located within said channel and between said channel back and said plate, means for attaching said bars to said plate for the purpose of transmitting lateral forces thereto.

In testimony whereof we have affixed our signatures.

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