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Artz

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[54] SHOCK-ABSORBING ABUTMENT BLOCK FOR VEHICLE PARKING AREAS

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[52] **U.S. Cl.** **267/139**

[51] **Int. Cl.** **F16f 1/42**

[58] **Field of Search** 267/139, 140, 116

[56] **References Cited**

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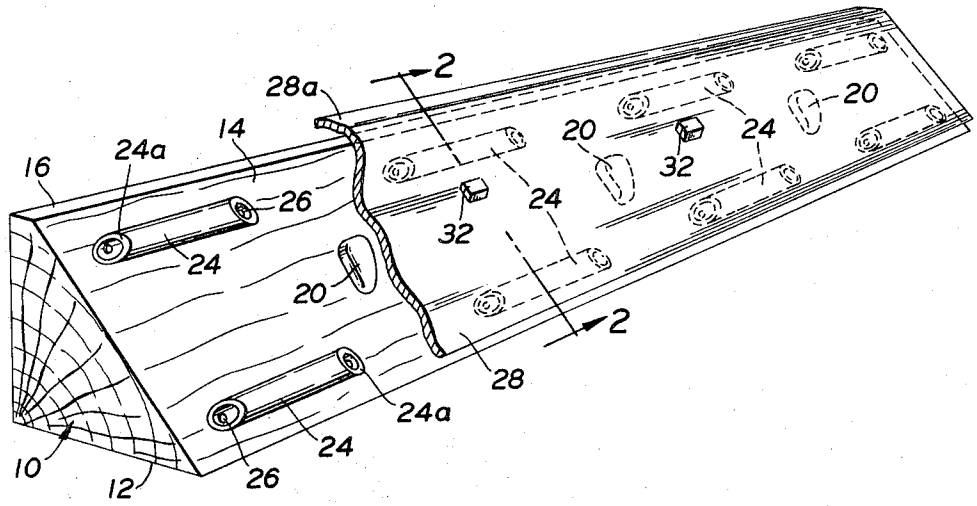
[57] **ABSTRACT**

An impact-cushioning, wheel abutment block for vehicle parking areas which includes a wood base member formed with an oblique surface inclined to face upwardly toward the wheels of a parked vehicle and rigidly anchored to the parking surface with spikes extending obliquely through the base member in the general direction of wheel impact force vectors, the base member being provided on its oblique surface with resiliently displaceable impact-cushioning means.

1 Claim, 4 Drawing Figures



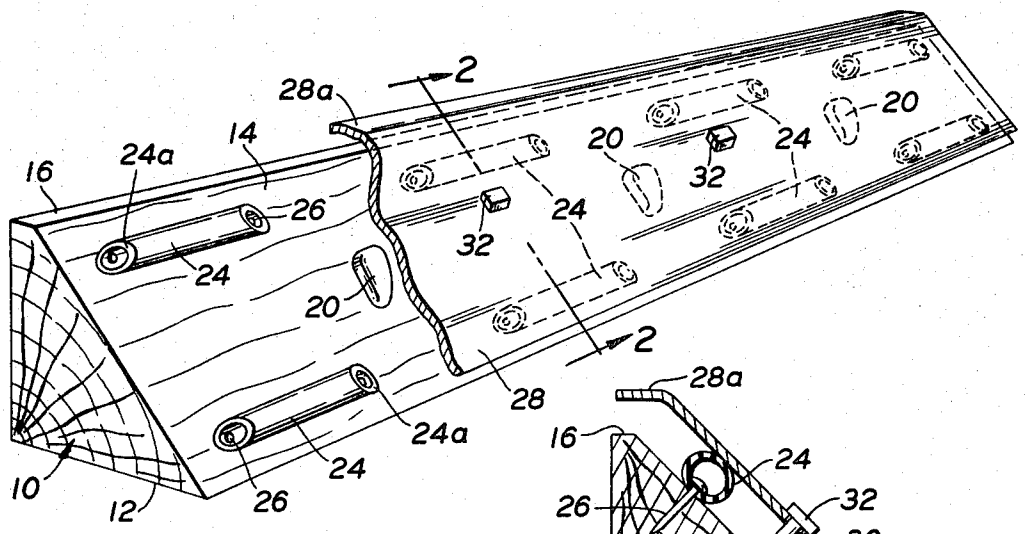


FIG. 1

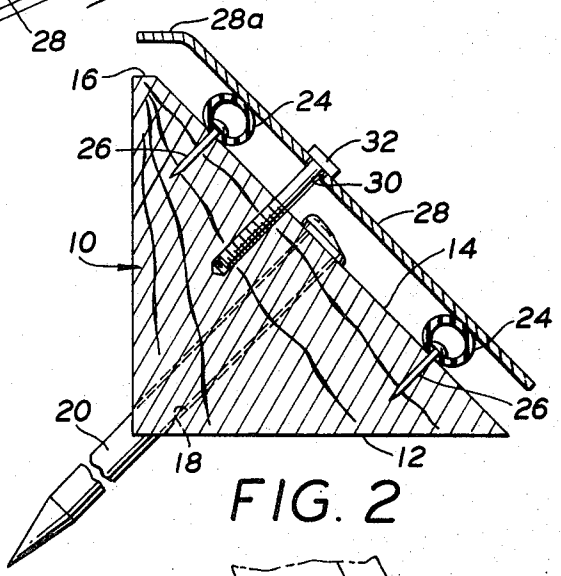


FIG. 2

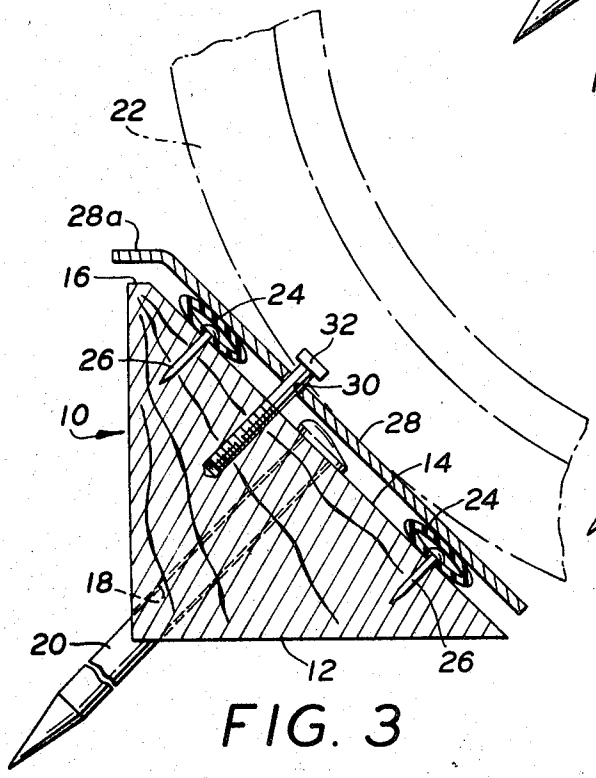


FIG. 3

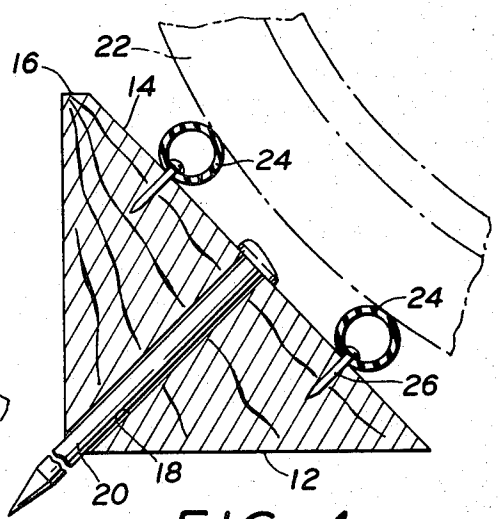


FIG. 4

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SHOCK-ABSORBING ABUTMENT BLOCK FOR VEHICLE PARKING AREAS

BACKGROUND OF THE INVENTION

This invention relates generally to parking blocks or chocks used in vehicle parking lots or similar areas to maintain desired spacing and alignment of parked vehicles. More specifically, the invention deals with an impact-cushioning parking block which is capable of absorbing the usual impact forces resulting from the wheels of a moving vehicle striking the same.

Present day vehicle parking lots and garages commonly employ a multiplicity of elongated, relatively spaced, rigidly anchored blocks or chocks to delineate individual parking spaces and to maintain desired spaced alignment of parked vehicles. These parking blocks usually consist of a block or rectangular slab of precast concrete which is rigidly anchored to the parking lot surface by a plurality of spikes or studs which are driven through vertical openings or holes preformed in the block and into the underlying parking surface and sub-surface.

During normal use, the parking blocks are frequently struck by the wheels of parking vehicles and are subjected to repeated impact forces which often cause premature breakage of the blocks and/or bending and breakage of the anchoring spikes or studs. Additionally, these impact forces are usually applied to the parking block in a horizontal direction which tends to bend or shear the vertically arranged anchor spikes or studs. Soon the rigid concrete parking blocks become dislodged from the parking surface and broken into several pieces. The rigid-type parking block is not the only victim of these impact forces since they also cause misalignment in the front wheel suspensions of the striking vehicles.

Precast concrete parking blocks are also objectionable from the standpoint of their weight which may range from 200 to 400 pounds per block. The unit weight of such blocks makes them difficult to handle and install and they are prohibited from shipment by common freight carriers.

There is a need, therefore for a lighterweight parking block having improved durability and the capability of absorbing and cushioning the impact forces to which it is normally subjected.

SUMMARY AND OBJECTS OF THE INVENTION

The present invention provides an impact-cushioning parking block for the protection of both the block and the parking vehicle. The parking block comprises a comparatively lightweight wood base member which is formed with an oblique surface which is inclined to face upwardly toward an oncoming vehicle wheel. The base member is anchored to an underlying parking surface by anchoring spikes which extend obliquely through the base member in the direction of impact forces and which are firmly embedded in the parking surface. The inclined or oblique surface of the base member is provided with a resiliently displaceable cushioning means for contact with the wheels of an oncoming vehicle.

An object of the invention is to provide a parking block which cushions the impact forces of a vehicle wheel striking the same to protect both the parking block and the impacting vehicle.

Another object of the invention is to provide a lightweight, durable parking block which may be easily handled, shipped and installed, and which may be repaired if damaged.

Further objects and advantages of the invention will be more readily apparent from the following description when considered in connection with the accompanying drawings which illustrate preferred embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of an impact-cushioning parking block according to the present invention showing a portion of the outer striker plate broken away;

FIG. 2 is a transverse vertical sectional view taken along the line 2—2 of FIG. 1;

FIG. 3 is a similar view illustrating the resilient deflection of the striker plate in response to the impact of a vehicle wheel with the parking block;

FIG. 4 is a transverse vertical section taken through a modified form of parking block according to this invention.

DESCRIPTION OF PREFERRED EMBODIMENTS

In describing the preferred embodiments of the invention illustrated in the drawings, specific terminology is used for the sake of clarity. However, it should be understood that specific terms are intended to include all mechanical and functional equivalents which operate in a similar manner to accomplish a similar result.

The parking block, illustrated in FIG. 1, comprises an elongated, hard wood base member or block **10** which is adapted to be anchored to a parking surface with its lower or bottom surface **12** in flat contact with the parking surface. The base member **10** is of generally right triangular cross sectional configuration and is formed with an oblique forward surface **14** which is inclined at an angle of approximately 45° to the bottom surface **12** and is positioned to face upwardly toward the wheels of an abutting vehicle. Preferably, the base member **10** is formed to provide a flat or blunt upper corner surface **16** to prevent splintering of the wood in this region. Advantageously, the base member **10** may be formed from a scrapped or discarded railway cross tie.

The wood base member **10** is formed at longitudinally spaced intervals with a plurality of diagonally extending spike-receiving bores or openings **18** through each of which an elongated, headed anchoring spike **20** may be driven into the underlying parking surface or bed to securely fasten the base member **10** to the parking surface. As will be noted, the bores **18** and anchoring spikes **20** extend through the base member **10** in a direction perpendicular to the outer face **14** and, therefore, in the same general direction in which impact forces will be applied to the parking block by the wheel or wheels **22** of a vehicle striking the block.

The outer, inclined face or surface **14** of the base member **10** is provided with resiliently displaceable or compressible cushioning means which preferably comprise a plurality of relatively spaced cylindrical tube or pad segments **24**. The tube segments **24** may conveniently be formed from discarded, cord-reinforced fire hose, and are preferably formed with obliquely beveled end portions **24a** through which nails **26** may

be driven to securely fasten the tube segments to the outer face **14** without collapsing the tube segments. The tube segments **24** are preferably arranged in equidistantly spaced rows or sets along the entire length of the outer face **14** of the base member **10**. Alternatively, the tube segments **24** may be replaced by continuous tube elements or by substantially solid, but resiliently compressible pads.

As shown in FIGS. **1–3**, the resiliently displaceable cushioning means may also include a metal striker plate **28** which is disposed in spaced parallel, overlying relation to the outer face **14** of the base member **10**. The striker plate **28** is substantially flat throughout its main body portion, but is preferably formed with an angularly bent upper edge flange **28***a* arranged to overlie and protect the upper corner portion **16** of the base member. The plate **28** is also formed at longitudinally spaced intervals with a plurality of bolt-receiving holes or openings **30** which loosely receive the shank portions of a like number of headed lag bolts or screws **32**. As best seen in FIGS. **2** and **3**, the shank portions of the bolts **32** extend through the openings **30** of the plate **28** and are threaded or screwed diagonally into the face **14** of the base member **10**. The relatively enlarged head portions of the bolts **32** are positioned in outwardly spaced relation to the face **14** of the base member so as to hold the plate **28** in snug contact with the outer surfaces of the tube segments **24**, but in outwardly spaced relation to the face **14** and the heads of the anchoring spikes **20**, as shown in FIG. **2**. In this position, the striker plate **28** is free to slide on the shanks of the bolts **32** inwardly toward the face **14** of the base member to resiliently compress or flatten the tube segments **24** when the striker plate is struck by the wheel or wheels **22** of the parking vehicle. This resilient displacement of the striker plate **28** and tube segments **24** is shown particularly in FIG. **3**.

While the outer striker plate **28** is desirable from the standpoints of providing protection for the underlying components of the parking block and for distributing impact loads over a larger number of the cushioning tube segments, and for generally improving the appearance of the parking block, in certain installations it may be eliminated for the sake of economy. Thus, FIG. **4** of the drawing shows a parking block in which the striker plate and its associated securing bolts or screws have been eliminated. In this modified construction, the resiliently compressible tube segments **24** are exposed and provide direct contact surfaces for the wheels **22** of the parking vehicle. As will be understood, the tube segments **24** are so spaced and arranged on the outer face **14** of the base member **10** as to preclude direct contact of the vehicle wheel **22** with the face **14** without first contacting and resiliently collapsing the tube segments.

In the operation and installation of the present parking blocks, the wood base member **10** with the cushioning tube elements attached thereto is first securely anchored in its desired position on the parking lot or other vehicle parking surface by forcibly driving the anchoring stakes or spikes **20** through the preformed openings **18** of the base member and well into the underlying pavement and/or subsurface of the parking lot. The metal striker plate **28**, when used, is then attached over the outer face **14** of the base member and over the tube segments **24** by means of the lag bolts or screws **32**. When so positioned and assembled, the parking block provides an effective, impact-cushioning and shock absorbing abutment against which the wheels of a motor vehicle may be driven at normal approach speeds without damaging or displacing the base member of the block and without damage to the wheel alignment of the vehicle. The present parking blocks are also characterized by their comparative light weight and their consequent ease of shipment, handling and installation.

While preferred embodiments of the invention have been illustrated and described in detail, it will be understood that various modifications in details of construction and design are possible, without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. A shock-absorbing, wheel abutment block for a vehicle parking area comprising:

a. a wood base member of generally triangular cross-section having a flat, substantially horizontally disposed bottom surface and an oblique, planar outer face;

b. an elongated anchoring stake extending diagonally downwardly through said base member in a direction generally perpendicular to the plane of the outer face of said base member for anchoring said base member rigidly to the upper surface of a vehicle parking area;

c. a downwardly sloping, generally flat metal striker plate movably connected with said base member in overlying relation to the outer face thereof; and

d. resiliently compressible cushioning means positioned between said base member and said striker plate and biasing said striker plate away from the outer face of said base member.

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