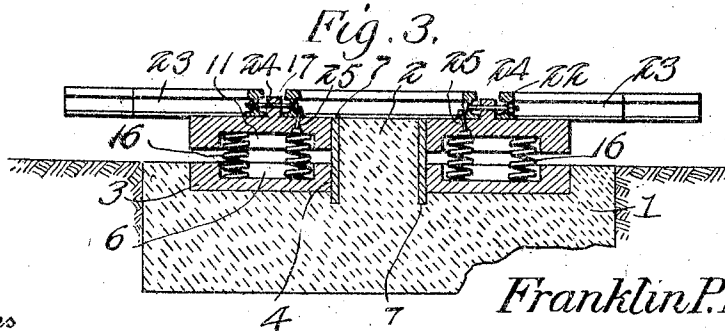
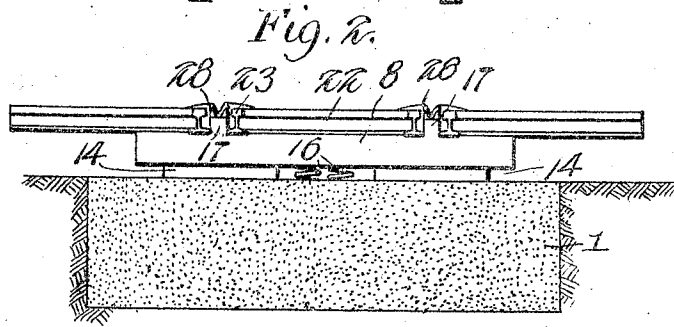
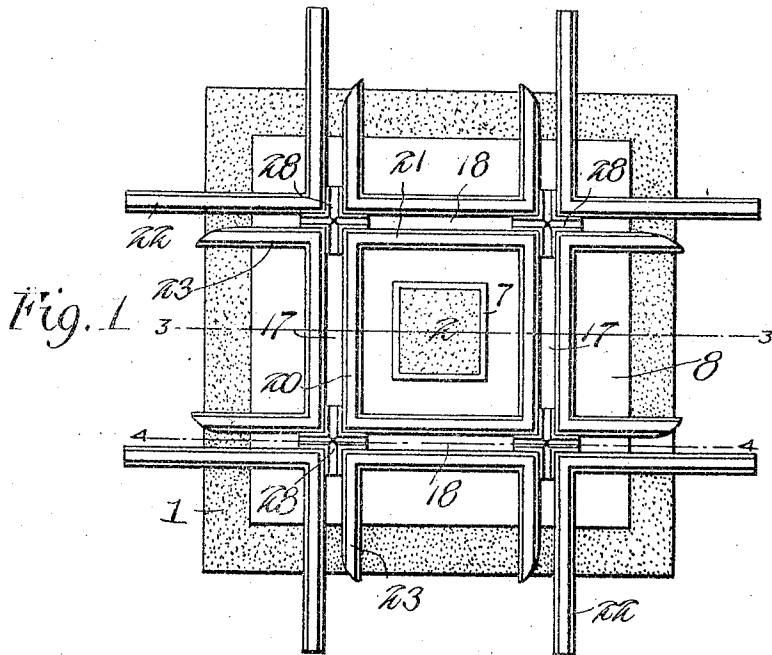


F. P. McCOIG.
RAILROAD CROSSING.
APPLICATION FILED SEPT. 17, 1912.

1,058,618.

Patented Apr. 8, 1913.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS-SHEET 2.

Fig. 4.

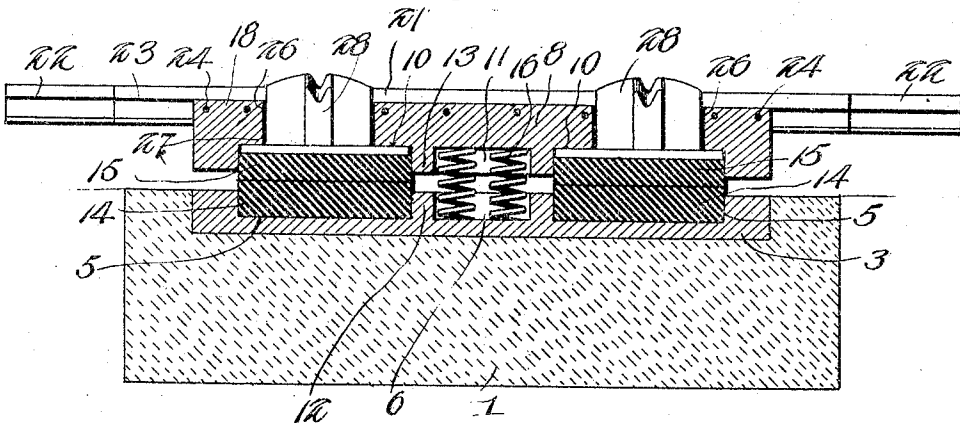


Fig. 5.

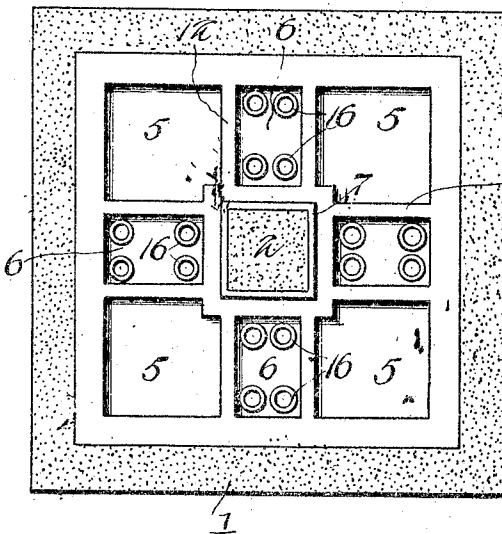
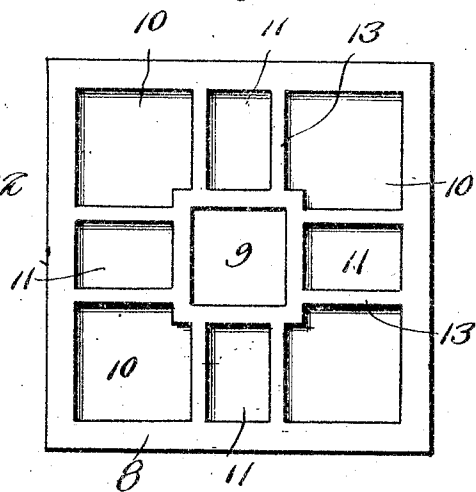


Fig. 6.



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UNITED STATES PATENT OFFICE.

FRANKLIN P. McCOIG, OF REDONDO BEACH, CALIFORNIA.

RAILROAD-CROSSING.

1,058,618.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed September 17, 1912. Serial No. 720,840.

To all whom it may concern:

Be it known that I, FRANKLIN P. McCOIG, a citizen of the United States, residing at Redondo Beach, in the county of Los Angeles and State of California, have invented new and useful Improvements in Railroad-Crossings, of which the following is a specification.

This invention relates to railroad crossings, and its object is to provide a crossing which is simple, strong, durable and inexpensive in construction, adapted to permit of ready repairs and renewal of parts, and designed to afford a cushioning action so as to reduce wear and tear on the crossing and rolling stock, as well as jolting and jarring of the latter in passing over the crossing.

The invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:—

Figure 1 is a top plan view of a crossing embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional view through the crossing on the line 2—3 of Fig. 1. Fig. 4 is a similar view on the line 4—4 of Fig. 1. Fig. 5 is a top plan view of the crossing base with the top plate removed. Fig. 6 is a bottom plan view of the top plate.

Referring to the drawings, 1 designates a rectangular base of concrete or other suitable plastic material, which is embedded in the ground and provided with a central rectangular abutment 2 projecting from the upper face thereof. Embedded in the upper surface of this concrete base is a metallic bottom plate 3 having a central opening 4 through which the abutment 2 projects, and provided at each of its corners with pockets or depressions 5 and between the same with other pockets 6. A metallic reinforcing sleeve 7 projects through the opening 4 and is embedded in the concrete base and surrounds the projecting abutment 2 and protects the same from injury.

Disposed above the bottom plate 3 is a top plate 8 conforming in contour and area therewith and provided with an opening 9 through which the sheathed abutment extends, said abutment serving to hold the top plate from lateral movement in any direction while permitting it to have vertical motion. The top plate is provided in its under

side with pockets or depressions 10 arranged above and complementary to the pockets 5 and with their pockets or depressions 11 arranged above and complementary to the pockets or depressions 6. Each plate 3 and 8 preferably consists of a single casting in which the pockets or depressions are formed and separated from each other and from the central openings by cross ribs or partition walls 12 and 13 respectively.

Arranged within the pockets or depressions 5 are cushioning blocks 14 of rubber or other suitable elastic material, and arranged within the pockets 10 are similar cushioning blocks 15, which blocks are in yielding contact with each other and thus yieldingly support the top plate 8 and permits it to have vertical motion to cushion all shocks and jars. In the pockets 6 and 11 are seated other cushioning elements in the form of coiled springs 16, which further yieldingly sustain the top plate, and cooperate with the cushioning blocks to limit the depression of said top plate under the weight of the rolling stock, while permitting said top plate to yield to a sufficient extent to prevent objectionable shocks, jars or noise as the wheels of the rolling stock pass over the crossing.

In the present illustration, the crossing rail construction is of a type employed when the crossing rails extend at right angles to each other, although it is to be understood that provision may be made for supporting the crossing rails at any desired relative angle. Arranged upon the top of the crossing plate are pairs of parallel flanges 17 and 18 which thus inclose a rectangular space about the abutment, within which space are arranged guard rails 20 and 21 disposed in the form of a rectangle. Arranged upon the outer sides of the projecting ends of the flanges are the main line rails 22, and disposed between are the guard rails 23, all of which rails are united by bolts 24 to the respective adjacent flanges 17 and 18 and may be also secured to the top plate by bolts 25. At their points of intersection the flanges 17 and 18 are cut away to provide recesses 26, and in line with these recesses the top plate is provided with openings 27 which communicate with the underlying pockets 10. These openings 27 are of cruciform shape and receive correspondingly shaped corner blocks 28 which are secured to the upper cushioning blocks 15 and are

thus yieldingly supported for movement independently of the top plate. The blocks are rounded upon their upper faces and grooved for the easy passage of the wheel flanges of the rolling stock and are adapted under the weight of the wheels to yield sufficiently to permit the same to pass over the crossing without the noise and jars ordinarily produced in the passage of the wheels across ordinary rigid joints. By this means, the rails of the crossing are firmly and rigidly supported, while at the same time permitted to have a yielding vertical motion to adapt the rolling stock to travel easily over the crossing, while the yielding corner blocks prevent thumping and reduce the wear and tear resulting from the contact of the wheels with the rails in passing over the intersecting rail joint.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that my invention provides a crossing which is strong and durable in construction, which admits of the ready and convenient repair and replacement of its parts, and which is adapted to ease the jar of contact in the passage of rolling stock so as to reduce wear upon the rails and wheels to the minimum, while at the same time relieving the rolling stock of the jars and strains customarily produced.

It will, of course, be understood that the structure may be modified as occasion requires according to the arrangement of the crossing rails, and with the cushioning means employed may be of any preferred type within the spirit and scope of the invention as defined in the appended claims.

I claim:—

1. A railroad crossing comprising a plastic base having an upstanding projection, a bottom plate embedded in the base and having an opening through which said projection extends, a top plate having an open-

ing receiving said projection and being vertically movable thereon, crossing rails carried by the top plate, and cushioning means between said plates.

2. A railroad crossing comprising a plastic base having an upstanding projection, a bottom plate embedded in said base and having an opening for passage of said projection, a wear sleeve embedded in the base and inclosing said projection a top plate having an opening receiving the projection and in guided connection therewith, crossing rails carried by said top plate, and cushioning means between the plates.

3. A railroad crossing comprising a plastic base having an upstanding projection, a bottom plate embedded in the base and provided with pockets, a sleeve inclosing said projection, a top plate provided with complementary pockets and having an opening receiving said sleeve projection, crossing rails carried by the top plate, and cushioning elements disposed between said plates and seated in the pockets thereof.

4. A railroad crossing comprising a plastic base having an upstanding projection, a bottom plate embedded in the base and through which said projection extends, said bottom plate being provided with pockets, a sleeve embedded in the base and inclosing said projection, a top plate provided with complementary pockets and carrying crossing rails including vertically movable corner blocks, and cushioning means between the plates and seated in said pockets and resiliently supporting the top plate and corner blocks.

In testimony whereof I affix my signature in presence of two witnesses.

FRANKLIN P. McCOIG.

Witnesses:

PETER J. MUNIET,
G. R. GENG.