

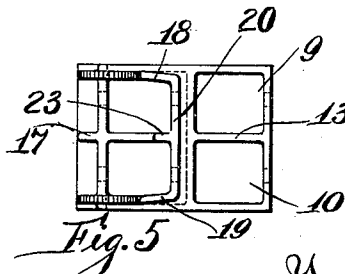
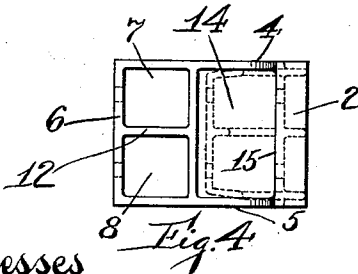
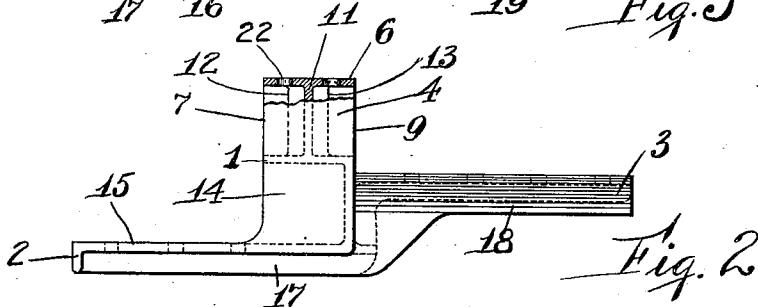
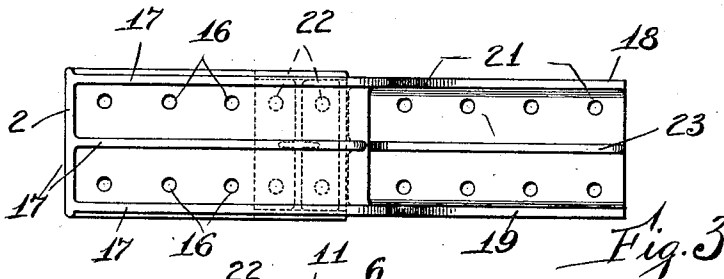
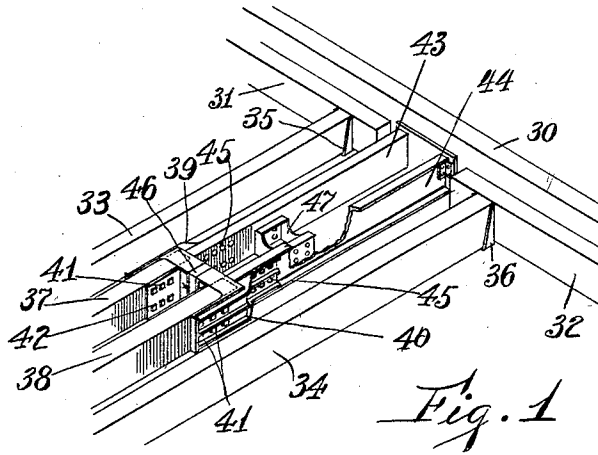
W. QUEENAN.

SPLICE.

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1,005,467.

Patented Oct. 10, 1911.



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SPLICE.

1,005,467.

Specification of Letters Patent.

Patented Oct. 10, 1911.

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To all whom it may concern:

Be it known that I, WILLIAM QUEENAN, a citizen of the United States of America, residing in Aurora, county of Kane, and State of Illinois, have invented certain new and useful Improvements in Splices, of which the following is a specification.

My invention relates to splices and more particularly to that type of splice used in joining beams in frame structures and has for its object the provision of such a splicing member as above referred to, which is adapted more particularly to attach steel beams to wooden beams.

In certain forms of frame structures, particularly in railway car floor frames, it has been the practice with respect to broken wooden center or draft sills, to replace the same with entirely new sills, which was necessarily quite an expensive operation. The breakage in such sills usually occurs at a point above the trucks, leaving the larger part of the sill still in good condition.

My invention is particularly applicable in splicing a short steel channel to the end of the wooden sill, the channel taking the place of the broken portion, thus necessitating only the removal of the short broken portion, and at the same time rendering the spliced sill more rigid and stronger than before.

Referring to the accompanying drawing in which like reference characters indicate like parts, Figure 1 illustrates in perspective a portion of a frame structure embodying the splice of my invention; Fig. 2 is a side elevation of the splice; Fig. 3 is a bottom view of the structure illustrated in Fig. 2. Fig. 4 is a left end view of Fig. 2, and Fig. 5 is a right end view of Fig. 2.

Referring now more particularly to the structure illustrated in Figs. 2 to 5, the said structure comprises an enlarged central portion 1 having the oppositely extending arms 2 and 3. The central portion 1 has two side walls 4 and 5 and a top wall 6. The upper part of the enlarged portion 1, has four openings 7, 8, 9 and 10, the said openings extending inwardly from opposite faces to the central web 11. The ribs 12 and 13 extend outward from the central web 11. The said ribs 11, 12 and web 13 are for the purpose of strengthening the enlarged portion 1. In the upper wall 6, are four holes 22. In the lower part of the enlarged portion 1 is a pocket 14, indicated by dotted lines in Fig.

2. The surface 15 of the arm 2 is flush with the lower inside wall of the pocket 14, as shown in Fig. 2, the said pocket 14 thus being adapted to receive an end of one of the members to be spliced, the said member being securely fastened to the surface 15 of extension 2, by any suitable means, preferably bolts or rivets passing through the holes 16 and corresponding holes in the spliced member.

The lower side of the extending portion 2 is strengthened by means of ribs 17, best illustrated in Fig. 3.

The extending arm 3 has two outer ribs 18 and 19, shaped to receive the inner surface of a channel iron. The flat portion 20 is adapted to be clamped to one of the spliced members, preferably a channel iron, the holes 21 being adapted to receive any suitable fastening means, passing through corresponding holes in the spliced member. The arm 3 is suitably strengthened by means of the middle rib 23 which extends along the inner surface of said arm 3.

Thus it will be seen from the general description of the splice of my invention illustrated in Figs. 2 to 5, that the same comprises a central enlarged portion having a suitable supporting means, preferably a pocket 14, to support the outermost end of a beam and an arm 2 adapted to be rigidly fastened to the said beam, and an arm 3 extending in an opposite direction to the first said arm 2, adapted to be secured to the other member to be spliced, and preferably shaped to be received in a hollow of the said second spliced member.

Referring now to Fig. 1, the said figure illustrates in perspective a portion of a railway car floor frame embodying my invention. In the said figure, the end sill 30, is partly shown, it being usually fastened to the outer sills which are not shown here. The bolsters 31 and 32 may be fastened to end sill 30 in any suitable manner. The intermediate sills 33 and 34 are fastened to the bolsters 31 and 32 and supported in hangers 35 and 36. The center or draft sills 37 and 38 have their outermost ends fitted into the pockets 14 of splices 39 and 40 as shown by dotted lines. The said splices are securely fastened to the center sills 37 and 38 by means of bolts 41, the said bolts passing through the holes 16 of the splices 39 and 40 and corresponding holes in the sills 37, 38 and their washer plates 42. The arms 3 of

splices 39, 40, are received into the inner hollow or trough of their respective channels 43 and 44. The said channels and splices are securely fastened together by means of bolts or rivets 45 passing through holes 21 of the splices and corresponding holes in their respective channels.

The block 46 may be of any suitable size so as to fit snugly between the surfaces 6 of the two splices 39 and 40. The said block 46 has holes corresponding to the holes 22 in the portion 1 of the splices and suitable bolts are passed through the holes, clamping the splices 39, 40 together, thus making a very rigid joint and strengthening the draft sills at this point. The block 47 shown at the broken away part of channel 44, is rigidly fastened to channels 43, 44 and adapted to receive the king bolt of the wheel truck.

It will be apparent from the above description of the preferred embodiment of my invention, that many alterations and modifications may be made. I, therefore, do not wish to be limited to the specific matter disclosed, but aim to cover by the terms of the appended claims all such alterations and modifications.

What I claim as new and desire to secure by Letters Patent is:

1. A splice having two oppositely extending arms, an enlarged central portion having a pocket, one of said arms and said pocket being adapted to be secured to a spliced member and the other arm being adapted to be secured to the other spliced member.

2. A splice comprising an enlarged central portion having a pocket adapted to receive a spliced member, an arm adapted to be fastened to the same member, and an oppositely extending arm adapted to be secured to the other member to be spliced.

3. A splice having two oppositely extending attaching arms, one of said arms having a flat attaching surface, and an enlarged central portion provided with a pocket having one of its inner surfaces flush with said attaching surface.

4. A splice for attaching wooden to steel beams comprising an enlarged central por-

tion having a pocket adapted to receive the end of a wooden beam, an arm adapted to be securely fastened to the same beam, and an oppositely extending arm adapted to be securely fastened to the steel beam.

5. A spliced center sill for railway cars, comprising a wooden beam and a steel channel, a splice having two oppositely extending arms, one of said arms being securely fastened to said wooden beam, an enlarged central portion for said splice having a pocket receiving the end of said wooden beam, the other arm being securely fastened in the hollow of said channel.

6. A center sill construction for railway cars, comprising a pair of center sills, each sill having a wooden beam and a steel beam, a splice for each sill having two oppositely extending arms and an enlarged central portion provided with a pocket, said pocket receiving the end of said wooden beam, one of said arms being secured to said wooden beam, the other of said arms being securely fastened to said steel beam, and means for securely fastening said splices together.

7. A splice comprising an enlarged integral portion having a pocket shaped opening adapted to receive the end of one of the members to be spliced, said opening having an abutting wall at the bottom thereof, and means extending from said portion and integral therewith adapted to be suitably secured to the members to be spliced.

8. A spliced center sill for railway cars comprising a wooden beam and steel beam, a splice having an enlarged central portion having a pocket supporting an end of the wooden beam, said pocket having an abutting wall at the bottom thereof and oppositely extending attaching arms integral with said central portion suitably secured, one to each beam.

Signed by me at Aurora, county of Kane and State of Illinois, in the presence of two witnesses.

WILLIAM QUEENAN.

Witnesses:

M. D. HASSITT,

HENRY G. DALTON.