

C. E. WEAVER.  
CONTINUOUS RAIL.

APPLICATION FILED APR. 26, 1909.

931,104.

Patented Aug. 17, 1909.

Fig. 1.

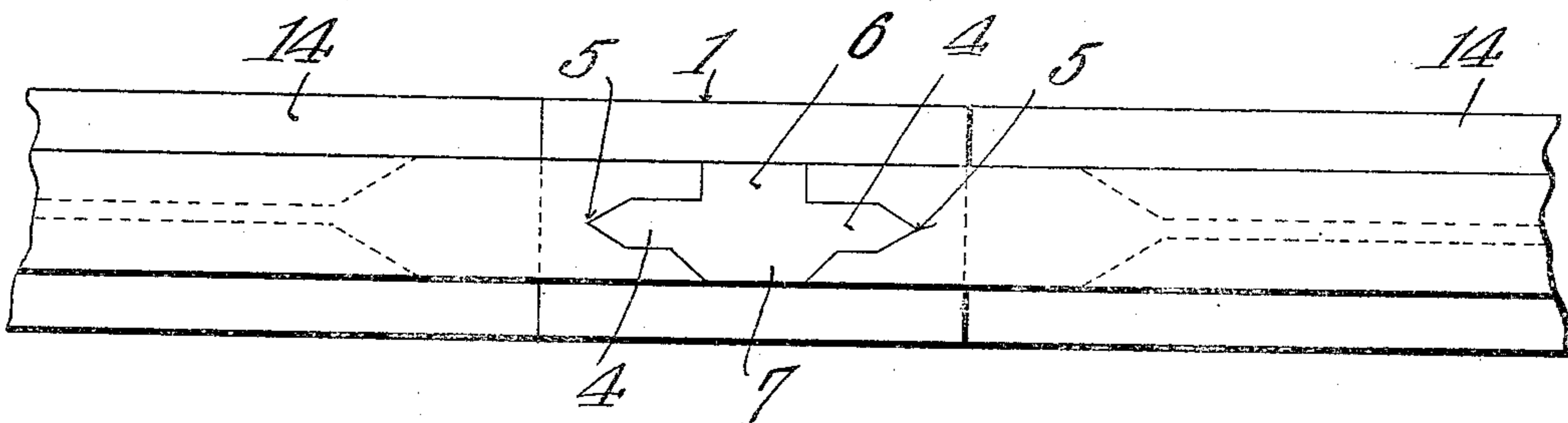


Fig. 2.

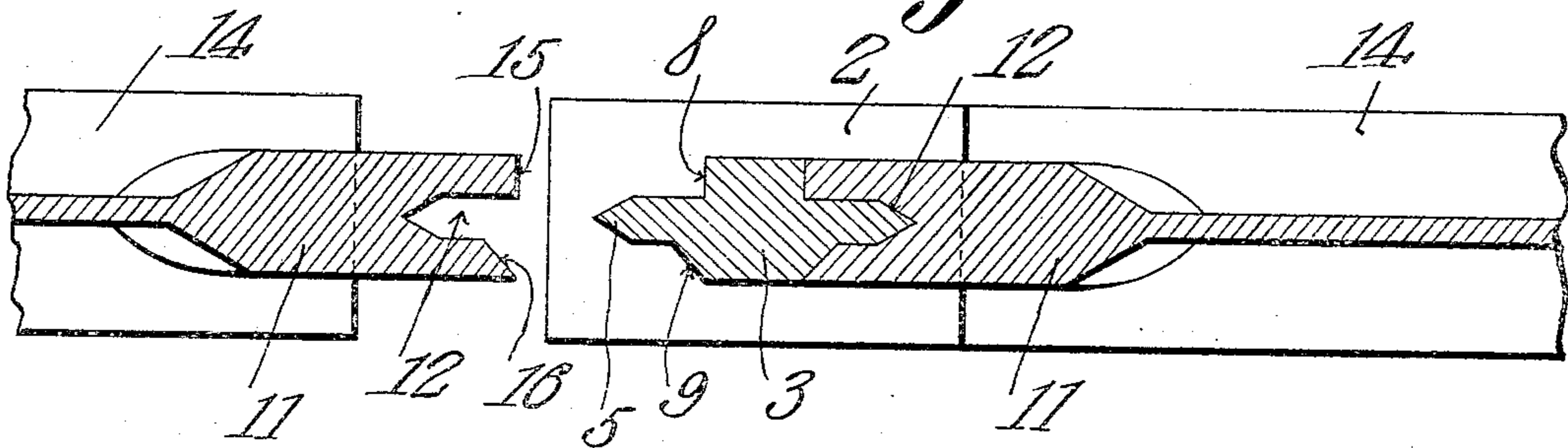
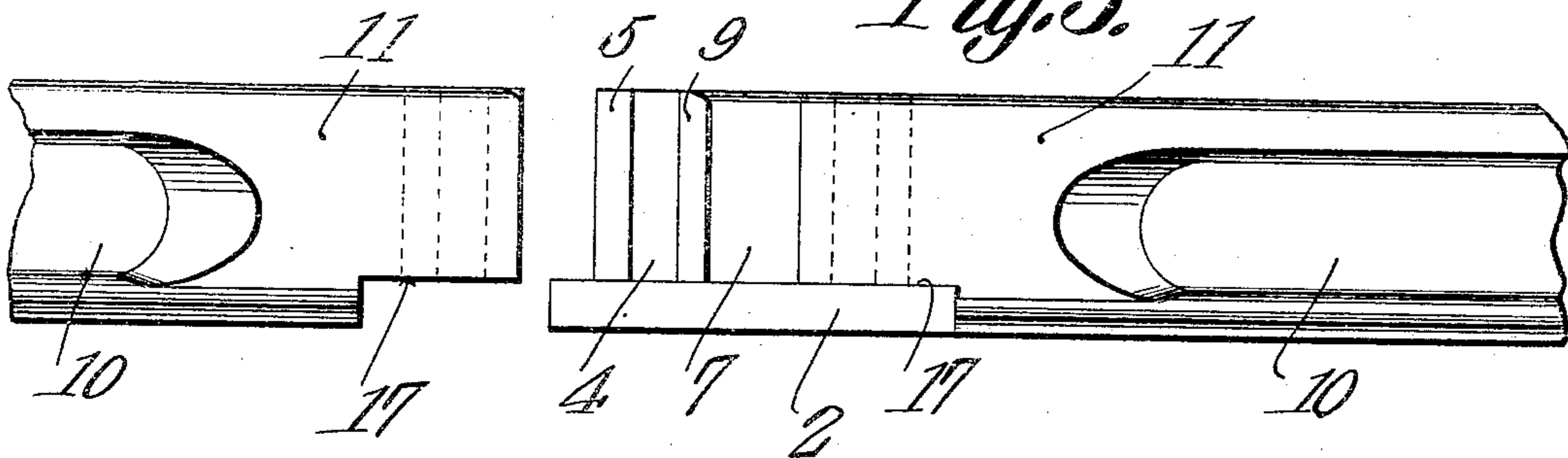


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

CHARLES E. WEAVER, OF CHELSEA, IOWA.

## CONTINUOUS RAIL.

No. 931,104.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed April 26, 1909. Serial No. 492,185.

*To all whom it may concern:*

Be it known that I, CHARLES E. WEAVER, a citizen of the United States, residing at Chelsea, in the county of Tama and State of Iowa, have invented a new and useful Continuous Rail, of which the following is a specification.

The objects of the invention are, generally, the provision in a merchantable form of a device of the class above described which shall be inexpensive to manufacture, facile in operation and devoid of complicated parts; specifically, the provision of a continuous rail joint adapted to maintain the rail sections in alinement, to allow for expansion or contraction, and to maintain the ends of the rail sections at grade; other and further objects being made manifest hereinafter as the description progresses.

The invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for certain distinctive and peculiar features of the device, it being understood that within the scope of what is hereinafter thus claimed, divers changes in the form, proportions, size, and minor details of the structure may be made, without departing from the spirit or sacrificing any of the advantages of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings.

In the accompanying drawings, Figure 1 shows my invention in top plan; Fig. 2 shows a horizontal, longitudinal section thereof; and Fig. 3 is a side elevation, one of the lower sections being spaced from the remainder of the device in order to more clearly reveal the structure.

In carrying out my invention, I provide primarily a spacing block denoted generally by the numeral 1. This spacing block 1 includes a base 2, which is of substantially the same width as the flange of the rail with which the spacing block is to be assembled. Rising from the base 2 is a cruciform head 3 comprising longitudinal arms 4 extending in the direction of the length of the track and lateral arms 6 and 7 extending substantially at right angles thereto. The longitudinal arms 4 are pointed at their ex-

tremities as denoted by the numeral 5. The lateral arm 6 has its face 8 disposed substantially at right angles to the direction of the track. I further provide in carrying out my invention, rail sections 14, the web 10 of which terminates at a short distance from the end of each section, the said ends of the rail sections, beyond the web thereof being broadened as denoted by the numeral 11, to attain substantially the same thickness as the cruciform head 3, measured through the lateral arms 6 and 7 thereof. The adjacent faces of the portions 11 of the rail section are cut away to form a seat, which conforms in outline to the face of the longitudinal arms 4 of the spacing block. Portions 11 of the rail section upon either side of the seat 12, conform terminally to the arms 6 and 7 of the spacing block against which they are adapted to abut, one of said portions terminating in a face 15 disposed substantially at a right angle to the length of the track, and parallel to the face 8 of the arm of the spacing block, the end face of the said section upon the other side of the seat 12 terminating in a beveled face 16 disposed parallel to the face 9 of the spacing block and adapted to be received thereby. The ends 11 of the rail sections 14 are cut away upon their lower faces as denoted by the numeral 17, to rest upon the base 2 of the spacing block 1.

When a railroad track is equipped with the continuous rail joint of my invention, the ends of the rails are rigidly supported upon the base of the spacing block, and the joints are not likely to be depressed even under heavy traffic and prolonged use. By pointing the extremities of the longitudinal arms of the spacing block, and by providing in the extremities of the rail sections, seats 12 conforming in shape to said arms, the alinement of the track will be maintained, the face 9 of the spacing block and the face 16 of the rail section, owing to their bevel, serving to augment the action of the pointed arms 12 in maintaining the alinement.

Although the pointed arms 4 and the beveled faces 9 and 16 serve to direct the movement of the rail sections 14 in alinement with each other, it is not desirable to have a beveled face upon the inner side of the rail lest a wheel flange catch therein. To obviate this difficulty, I have provided one of the lateral arms 6 with faces 8 disposed substantially at right angles to the direction of the track,

and it is obvious that with this construction the chance of a wheel flange entering the rail joint is reduced to a minimum.

The adjacent ends of the rail sections 14 may be spaced at any desired distance from the adjoining faces of the block 1, in order to allow for the expansion and contraction due to temperature changes. This spacing of the rail sections to accommodate the expansion and contraction does not however produce a gap in the track, the arms 4 and the seats 12 providing for ample play without producing a break in the track line. The unpleasant click caused by the wheels of the car passing from rail section to rail section will, when the device of my invention is employed, be entirely obviated, and, since the joints are firmly upheld, they are not likely to be depressed under protracted traffic, and there will be no unpleasant sounds or jars when the railroad rolling stock passes from rail to rail.

The rail joints herein described tend to maintain the surfacing and the alinement of the parts, and do away with the unpleasant rumble and clatter caused by low joints or by gaps between the rail ends, and it will be seen that the foregoing results are effected by a structure which is simple in form and easily disposed in its place upon the ties, the device after having been once set in place, reducing to a minimum the expenses incident to a track repair and maintenance.

Having thus described my invention what I claim as new and desire to protect by Letters Patent, is:—

1. A device of the class described comprising a cruciform spacing block having pointed longitudinal arms and a beveled trans-

verse arm; and rail sections having pointed seats to receive the longitudinal arms and being beveled terminally to correspond with the transverse arm.

2. A device of the class described comprising a cruciform spacing block having longitudinal arms and being provided with a transverse arm having faces disposed substantially normal to the line of the track, and with a transverse arm having beveled faces; and rail sections having seats to receive the longitudinal arms, and being terminally faced to correspond to the transverse arms.

3. A device of the class described, comprising a cruciform spacing block having pointed longitudinal arms, and being provided with a transverse arm having faces disposed substantially normal to the line of the track, and with a transverse arm having beveled faces; rail sections having pointed seats to receive the longitudinal arms, and being terminally faced to correspond with the transverse arms.

4. A device of the class described comprising a cruciform spacing block having longitudinal arms and transverse arms and rail sections having terminal seats to receive the longitudinal arms, the sections being terminally enlarged to correspond with the width of the block through the transverse arms.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES E. WEAVER.

Witnesses:

FRANK W. MATULA,  
JOSEPH F. WEAVER.