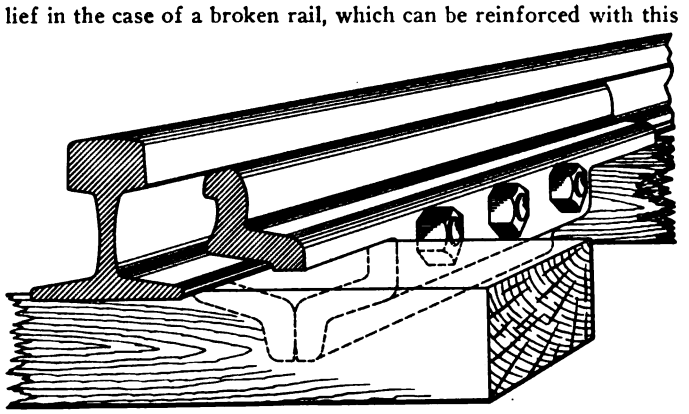
## AN EMERGENCY RAIL JOINT

An emergency rail joint has been recently developed and placed in service for emergency use on the Pennsylvania Railroad. In general it consists of two heavy splice bars with depending flanges which are provided with three bolt holes so placed that the two bars may be connected by bolts passing underneath the base of rail. The two flanges come to bearing below the bolts and the fulcrum thus afforded makes it possible to bring the bars to tight bearing against the rail by tightening the bolts. By this device two rails may therefore be held together for a time with reasonable security without the necessity for drilling bolt holes through the web.

One purpose for which this joint is designed is the quick relief in the case of a broken rail, which can be reinforced with this



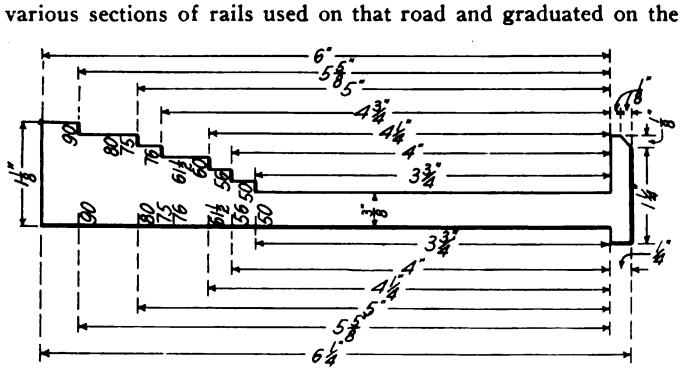
**An Emergency Rail Joint Devised for Use on the Pennsylvania Railroad.**

device without taking time to drill holes. A second use is to facilitate the replacing of rails in main running tracks. Frequently after several new lengths of rails have been spliced together and shifted into the opening made by removing the old rails, trouble is experienced in lining up the bolt holes in the splices at each end. In such a case the emergency splice would enable a firm, temporary joint to be secured quickly to permit the passage of trains.

The joints are made in lengths varying from 10 to 30 in., the shorter lengths not extending over the cross ties. The weight varies from 40 to 80 lbs. per pair, according to size. This joint was designed by Edwin W. Hankele, of the engineering department of the Pennsylvania Railroad, Pittsburgh.

## A RAIL SCALE

The rail scale illustrated in the accompanying drawing is used on Morgan's Louisiana & Texas Railroad. The scale is cut out of brass 1/16 in. thick, notched at one side for the height of the various sections of rails used on that road and graduated on the




**Rail Scale Made of 1-8 Inch Brass**

opposite side for the width of the base of the rails. We are indebted to W. E. Mielly, assistant engineer, Louisiana Lines, Southern Pacific.

## ANOTHER VIEW OF THE SECTION FOREMAN PROBLEM

By J. T. Bowser

**Maintenance of Way Department, Queen & Crescent, Danville, Ky.**

Much has been said and written in the last few years about the increasing difficulty of obtaining capable section foremen, perhaps to the neglect of the question of retaining the men we have at present and getting the best results from them. Men with years of experience are dropping from the ranks for one cause or another, and others are being discharged on account of unsatisfactory service. Can not some of the conditions be remedied which cause these men to resign or to become incompetent? Many a good foreman is lost to the service on account of the lack of proper treatment, proper understanding or appreciation. Many a foreman is discharged for incompetence or for other causes who would give entirely satisfactory service under more favorable conditions.

Section foremen, as much as anyone else, are appreciative of personal interest. A little judicious praise by a road supervisor or division officer, a comment on a favorable showing made along some particular line, are just as necessary to secure the proper results as reproof and condemnation for errors or inattention to business. Many men are not located on sections to which they are best suited. Conditions under which some men thrive and do their best work are fatal to the efficiency of others. The man who is not making a good showing should not be "scrapped," with his years of experience, if his failure is due simply to the fact that he does not fit a certain condition. A man who fails on a difficult section may make a valuable man on an easier section. The sluggish, indifferent man on an easy section may require the difficulties and worries of a hard section to wake him up and bring out his real qualities. The difficulties that crush one man may be the incentive that another needs. It is often the case that the longer a foreman stays on one section, the more efficient he becomes, but it is true perhaps oftener that he gets into the rut of the same conditions, the same old soft spots, the same old curves, and his best service is lost. Nothing kills initiative and promotes dissatisfaction like the monotony of routine.

A good man is often lost to the service because he must give consideration to the needs of his family. The schools at the point at which he must live may not be what he wants for his children; or their health may not be good in a certain locality. If he were changed to a section where better conditions could be found, his appreciation would show itself in better service. Certainly a man will do better work if he is satisfied that he is doing his best for his family. A fruitful source of trouble that may be eliminated is the foreman's loss of control over his men through familiarity with them. This error should be pointed out to him and, as a last resort, he should be changed to another location. He may avoid this trouble with a new set of men. Probably the most potent cause of poor work and of resignations is discouragement. There are some sections on which the best foreman could never take a premium. Year after year he may try his best and see it go to a less competent man more favorably situated. Men so located should be made to know that their difficulties are understood and that their efforts to make the best of them are thoroughly appreciated.

In short, consideration and intelligent personal interest will do much toward retaining and making effective the foremen we have, and to that extent will lessen the pressure of the need for new men.

PERUVIAN RAILWAY OCCUPIES HIGH POSITION.—The Central of Peru is said to cross the Andes at the highest point reached by any standard gage railroad in the world. One short branch reaches an altitude of 15,586 ft., which is higher than Mount Blanc, the highest of the Alps. The railroad cost $200,000 and the lives of 7,500 men.