

shearing operation has a tendency to lift the front end of the stationary part A on account of the long overhang of the latter, so to avoid this, the latter is bolted down to the bulldozer platen by

that the holes to be punched, F, are close up to the inwardly projecting lug. This precludes the possibility of using the edge of the lug as a guide against the edge of the die, for if such a course

the punch. The loops K serve as strippers for clearing the punches for the work after the operation. This operation completes the work on the one end, the three steps having been made suc-

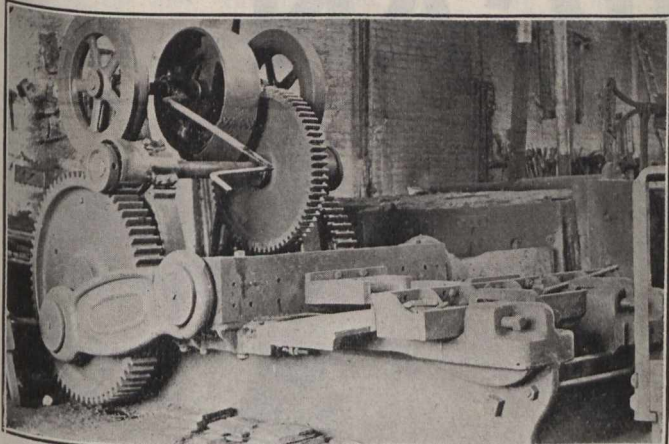


Fig. 1—Typical Bulldozer Installation with Dies attached.

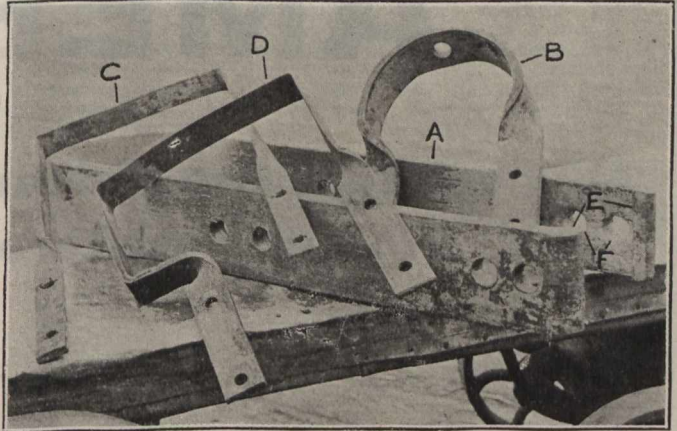


Fig. 2—Four Good Examples of Bulldozer Work.

bolts through the bolt holes shown. Following this end trimming operation, the coupler has its cross bolt holes punched, the dies for the purpose being shown in fig. 4, behind those just des-

were followed but little metal would be left along one side of the nearer die hole—not more than about 1/2 inch—in this case, which is insufficient. Some other means of locating these holes is

cessively in one heat. The other end is then heated and the three operations repeated on that end. The final operation of bending the coupler pocket to the U-shape is per-

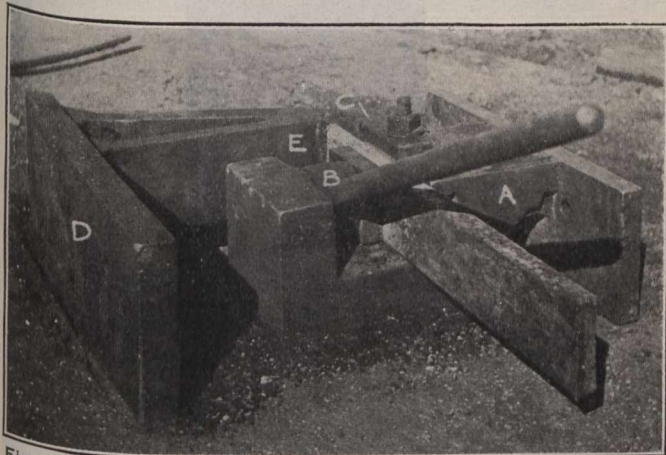


Fig. 3—First Operation of Bending the Lugs on a Car-coupler Pocket.

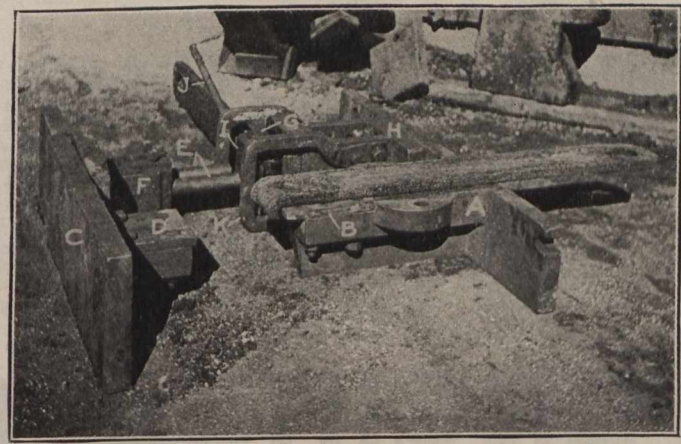


Fig. 4—Second and Third Operations of Trimming and Punching the Ends of the Car-coupler Pocket.

cribed. Two punches E are attached, as indicated, to a head F bolted to the bulldozer ram. Corresponding dies in a die-plate G on the bolster H are secured to the stationary plate of the ma-

thus required. A guide piece I, with a handle J has two holes located in it the same distance from its outer end as the holes of the coupler pocket are from the lugs. This piece then can be used as a

formed by the dies shown in fig. 5. A small hole is punched in the straight stock, midway between the lugged ends. The central portion that is to be bent, is then heated to a working heat, and

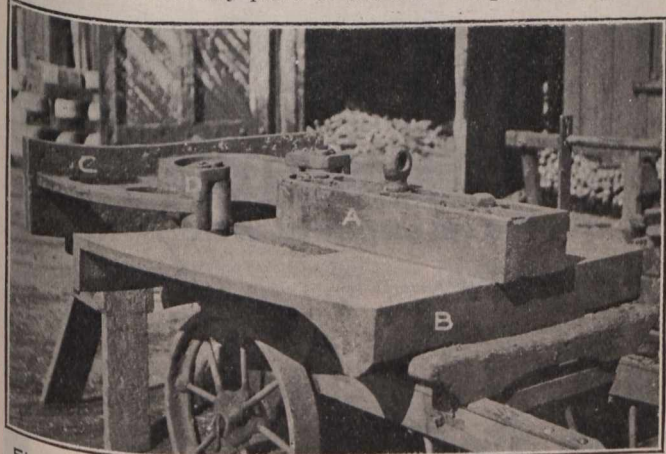


Fig. 5—Final Operation of Bending Car-coupler Pocket to a U-shape.

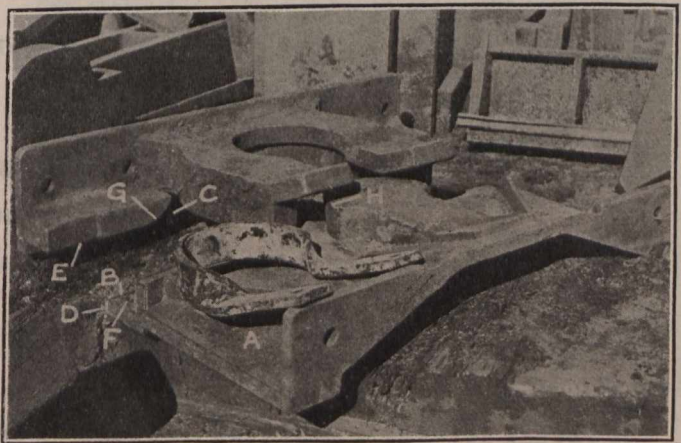


Fig. 6—Bulldozer Dies for Brake-rod Stands.

chine. This die plate is provided with plenty of stock around the punch holes so that there will be no tendency for that part to break under the spreading strain. Reference to fig. 2 will show

guide, placing it in front of the stock to be punched, holding against the shoulder formed by the lug. The stock and guide can then be located in their proper position by the operator in front of

placed in the bulldozer against the end of the part A of the die, a tit on this outer end fitting into a hole in the coupler strip, thereby locating centrally. This part A, has its base B, bolted sta-