

lacers and inspectors. The great bulk of the employees, however, fall into the first three groups. Thus for ordinary purposes the skilled mechanics, apprentices and helpers constitute the most important part of the human plant of the shop when judged from the viewpoint of craftsmanship, production and economy in the use of time and material. In other words, in proportion to the extent to which the individuals constituting these particular groups are concerned with shop efficiency and economy, will the highest standards of performance be approximated in the shop.

These three major groups of employees in turn also subdivide themselves into seven classes along distinct craft lines. These classes are: 1. machinists; 2. boilermakers; 3. blacksmiths; 4. sheet metal workers (tanners, copper smiths, pipe fitters, etc.); 5. carmen (locomotive carpenters, painters, and tender frame and truck repairmen); 6. electricians; and 7. firemen, oilers and shop laborers.

As a general proposition the subdivision of railroad shopmen along craft lines coincides with the division of the shop into its major departments. For instance, machinists are chiefly employed in the machine, air and steam appurtenance and erecting shops, boiler-makers in the boiler shop and blacksmiths in the blacksmith shop. In the shop where the locomotives are stripped and assembled, sheet metal workers, boilermakers, electricians and carmen are also engaged, but each class is under separate and distinct supervision.

Thus it happens that a fairly close identity prevails in locomotive and car repair work in respect to the problems of the employees when regarded either from the craft shop or department viewpoint. This is an important fact to bear in mind in relation to the technique or cooperation.

Finally the employees constituting each one of the seven crafts are organized into local lodges which in turn are part and parcel of one of the following international unions affiliated with the American Federation of Labor: 1. International Association of Machinists; 2. International Brotherhood of Boilermakers, Iron Ship Builders and Helpers of America; 3. International Brotherhood of Blacksmiths, Drop Forgers and Helpers; 4. Sheet Metal Workers' International Association; 5. International Brotherhood of Electrical Workers; 6. Brotherhood Railway Carmen of America; and 7. International Brotherhood of Firemen and Oilers.

Each of the individual railroad lodges of these international unions annually elects its officers and various important committees, chief among them, the committee authorized to look after the interests of the men in the shop in their relations to the shop supervision and management. Usually, though not always, the member who is chosen as lodge president or chairman functions also as the chairman or chief spokesman of this important shop committee. Frequently some of the men who are selected for its other offices are also delegated to serve on this committee. Thus the most active and able men in the local unions are brought forward and thrust into positions of responsibility in respect to the affairs of their constituents, both as union men and as shop employees. At first, of course, the more simple characteristics of leadership bring these particular individuals to the fore, but as they learn through experience and contact with management, they soon improve their value to those for whom they speak. Confidence in their ability to conserve the welfare of the union workers in the shop grows on the part of the rank and file. Where unions exist and function and where they are accorded the status necessary under a program of union-management cooperation, the local union representatives are in a position of peculiar importance as far as the general morale of the shop is concerned. This is another important point to bear in mind.

In railroad shop service each one of the local lodges of the standard unions is, in turn, either part of, or affiliated with, three other bodies. The first of these is the local shop federation, which is concerned with the local intercraft problems of the men. The various officers of each local railroad lodge constitute the advisory councils of the local shop federation. The chairmen of the craft shop committees or the presidents of each lodge, one of whom is usually elected president of the local shop federation, constitute the local federated shop committee. This local federated shop committee, usually consisting of seven or eight men, is the highest local representative body of the shopmen obligated to confer with the local management on matters of mutual concern.

Local shop federations as a rule meet once a month. These meetings are either meetings of delegates from each lodge affiliated or meetings of all the shop employees of all crafts. As a rule each individual attending has a voice in these meetings. Voting on important matters, however, is by crafts or local lodges.

The second type of affiliated body of which each local craft is a member is the district, system craft council, or joint protective board. Such districts as a rule are confined to the railroad system where the craft in question enjoys recognition. For example, all the local machinist lodges of the International Association of Machinists on the Baltimore and Ohio Railroad are banded together in District Lodge 29, International Association of Machinists. These district lodges or joint protective boards meet annually in convention to determine upon general craft policies and also to elect in convention or by referendum a set of regular officers. Chief among these district officers is the chairman of the district. He is maintained out of the district craft treasury and is actively in the service of his craft representing its interests over the entire railroad system. So far as any particular craft as a whole is concerned on a railroad, he is its most important officer especially in respect to the railroad management.

Lastly, each local lodge directly and also by virtue of its shop federation and district affiliation is tied in with the system federation of all the crafts. This system federation is governed between annual conventions by its executive board, which is composed of the craft chairmen, a federation president, a federation vice-president and a federation secretary-treasurer. The executive board functions in respect to most matters of importance to the federation. Occasionally, however, the executive board may decide to convene the advisory council of the system federation to pass on important propositions. This advisory council consists of three representatives of the system organization of each craft, usually the system craft representative, the president and secretary-treasurer.

Annually, or biennially, the railroad system federation meets in convention, the delegates to the convention coming from each lodge of all the crafts and each local shop federation. This annual convention establishes the laws governing the federation, lays down general policies and elects the system federation officers. Aside from certain limitations in trade union law, the action of these conventions bearing upon the immediate relation of the shopmen to their respective managements is supreme and final. The system federation convention is the highest authority regulating the affairs of the federated shop crafts on a major railroad system.

It is particularly important to note the general structure of the voluntary organizations of the shop

employees, how they grow squarely out of the rank and file, how they dovetail into the typical maintenance of equipment organization of the railroad and, finally, how the various representatives of the shopmen from the individual local committeemen to the system craft chairman, the system federation executive and advisory boards, the system federation president and secretary-treasurer and, finally, the President of the Railway Employees Department, must be the product of the shops, yards and roundhouses of the railroad industry. In other words, before anyone can become an officer, even in an unimportant capacity, in these organizations, he must first be a member of one of the local railroad lodges, which means that he must first enjoy employment in railroad service. Not until the organization, administration and functioning of the standard unions of the shop employees are properly and thoroughly understood, not until the structure of these unions is visualized in the light of the structure of the mechanical department organization of a typical railroad, can the far reaching possibilities of cooperation between management and unions be properly comprehended. It is chiefly because this union machinery is ready and at hand, having been devised, truly democratically, by the shopmen of the railroads, that the opportunity is available to allocate to this deeply rooted organism the added responsibility which genuine union-management cooperation implies.

The machinery of cooperation is based squarely on the organization and interrelation of the shopmen's unions. How this follows becomes clear from a consideration of the detail construction of this machinery. The first form it takes is that of regular joint local meetings between the local federated committee of the organized shopmen and a balanced committee of representatives of the shop management. The latter representatives are composed usually of such local officers as superintendent and assistant superintendent of shops or master mechanic, local storekeeper, chiefs in charge of auxiliary departments and foremen in charge of the major shop departments. The meetings of these committees are held at least every two weeks at a definitely appointed time in the office of the local officer in charge of the plant.

The next important part of the machinery consists of joint system cooperative conferences, the president and secretary of the system federation and the general chairman of each craft meeting with the head of the railroad's maintenance of equipment depart-