STEEL FRAME BUILDING CONSTRUCTION

By Joseph M. McCoy, *Engineer, J. G. Williams Const. Co.*

AN internationally famous engineer being complimented upon the successful completion of the then world's greatest hydro-electric enterprise which this seasoned man had conceived, planned, and directed throughout its construction, replied that in his opinion, among the five thousand men who had labored on the project from inception to completion a very great many deserved more real credit than he. A land surveyor in one of California's mountain counties referred to the many-hued newly lithographed geological survey map of North America, lately published and just hung on his rustic walls, as "the history of North America for a hundred million years, the writing of which had required four centuries and taken the best years from the lives of a million men."

Asked to contribute an article on steel frame building construction, the voices of the two old friends just quoted bid the writer to place credit where it belongs. If praise is held due because of the grace, strength and durability of the finished building, then it should be divided between those who conceived and designed and those who executed. The fascinating history of the advance of engineering science, of which the design of great buildings is a part, has already been written by professional scribes. Certain technical features of steel frame construction as applied to modern city buildings have no doubt been discussed in articles appearing in this volume in a manner far beyond the capacity of this writer. He is inclined, therefore, to say a word of the Steel-worker himself, of the individual who shinnys up the columns, connects the beams, and is generally responsible for the mushroom-like growth of a steel frame under construction.

"Iron-workers" they call themselves, and an outstanding good humor is one of their greatest charms. One said loquaciously that "he had just as good an education as anyone else, the only difference being that he had'nt quite as much of it." An occasional cartoon would indicate that the popular conception of the steel-erector involves such ideas as the sickening sight of two overall clad figures lunching nonchalantly astride an overhanging beam some five hundred feet above a busy city street, or that of a "load" with its human freight left indefinitely suspended midway between street and building top because the five o'clock whistle happened to blow during the progress of its upward course. But the Ironworker is really little given to doing "stunts." A local newspaper photographer getting copy for his rotogravure section was forced to pose a picture of a crap game between two "connectors" who had been lured into what looked like a highly hazardous position out on the cornice of the city's latest and highest skyscraper, and the accompanying reporter had to furnish the "bones." The principals in this little comedy pleasantly tolerated being taken away from the lunch which their fellow workers were enjoying on a carefully planked-over floor below.

The vernacular of these lads is interesting. When out of a job, they are always "on the street." When forced to migrate from city to city in search of work, they become "floaters"; a new-comer in any particular locality is a "Johnny-come-lately"; an apprentice is a "punk", while a worker of questionable skill or ability is a "Joe McGee."

And they are not unsentimental, these rugged men. Upon the completion of a steel frame the national emblem is always flown from its topmost member and the flag never comes down until the elements have whipped it to shreds. Bottles of champagne are not known to have been used as in the christening of newly built ships, but in those other days when "a man could raise a thirst", and quench it, some very vigorous toasts were drunk to and the empty bottles afterward broken on the highest column standing by. During the World War these men did their share, and by no means all found their way into the shipyards. The writer doubts if any other single trade or craft furnished as many men as did the Ironworkers to that first volunteer regiment of "Engineers" out of San Francisco in May, 1917.

If they seem to be hardened, it is only a physical hardening of body and features because of the "cussedness" of the cruel cold material in which they are continually working with their hands. Knowledge of a fellow workman out of funds because of injury, sickness or unemployment is certain to be the signal for starting a generous subscription list. So let us be generous with these men of "intestinal fortitude" who truly "build" our skyscrapers, and admit that we could not do it without them.