THE RED MONSTER.

BY F. W. FITZPATRICK.

[The International Society of Building Commissioners, of which the author is Executive Officer, is meeting with some success in having cities consider the re-vamping of their tax systems. As things are now, the more money a man puts into a building, the more precautions he takes against fire, for instance, the more is he taxed by the municipality. It is suggested that a more persuasive means should be employed by communities to get people into the notion of building better by graduating the taxes on property according to that property's safety or danger; that the man with a fireproof building should pay a less pro rata tax than the one owning a fire-trap. Such an arrangement of taxes would be equitable to all. It would put the burden of maintenance of fire departments upon those who needed the service, and would relieve those of that tax who are public-spirited and businesslike enough to build so as to not require such services. It is the one sane solution of the problem, and all right-minded men should join in the effort to bring about this much-needed reform in taxation, that would do so much for our cities and at the same time encourage the individual to look after his own interests too, for, after all, sound building, fireproof building is the only safe investment. Anything less than that is a gamble that, in the very great majority of cases, turns out disastrously for the gambler.—ED.]

NERO destroyed Rome to amuse himself, a little pastime that cost that nation many millions of its golden coins; French and other revolutionaries burned many cities; the Russians fired Moscow merely to cause that other devastator, Napoleon, some inconvenience. and in more recent wars whole cities have likewise been destroyed for strategic or other alleged reasons, but in our day and environment all our great conflagrations have been attributed to Accident. Erroneously however; for the real culprit's name is STUPIDITY.

Strange though it may seem our people have only begun to suspect him; like many of our institutions he is being investigated and there is some talk of indicting him, but alas and alack, there is scant hope of a speedy trial and still less probability of his being put away where he can do no further harm.

In the times of our fathers, the pioneers, it was economy to build of wood. That created a precedent. And so people got into other habits of construction then and in times immediately following,

habits that have stuck to them most tenaciously since, though the necessity or excuse for doing things in that or those particular ways disappeared years ago.

To build of wood to-day, and particularly in congested districts, and to do much else in our buildings that we do do, things that insure rapidity of combustion, that endanger life, that make destruction of property certain is no longer economical, but on the contrary is foolishly extravagant and positively criminal. At law ignorance is no excuse, but in this case it would seem that the most that could be laid against the people is that they are more or less innocent accessories before and after the fact. The architects are the most to blame for the fact that the people have remained in the rut of poor building. Indeed is not the profession chiefly to blame for nearly all the sins of bad building, insufficient building laws, resultant fires and our troubles and losses in that line generally?

Some people have recognized the condition, and frantic efforts are made to effect a cure. Most of them have been applying remedies, giving medicines after the trouble has started; few have thought of eliminating the disease or at least preventing its dissemination. Every effort has been made to put water on fire, to drown it, after it has started; few have ever even thought of cutting the fire damage down by giving it *less fuel* to burn.

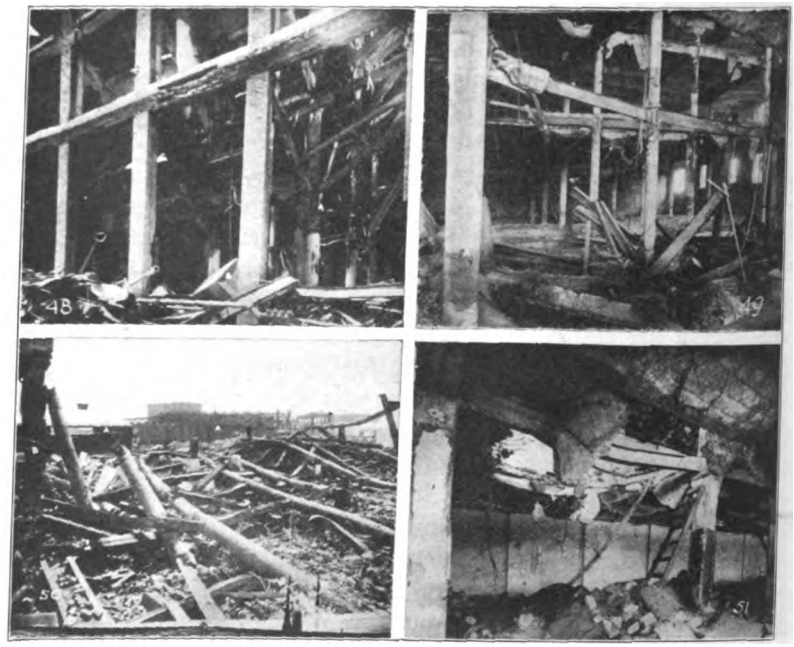
Things have gotten to such a pass, however, that even if we should be sane enough to add nothing more that can burn there is already so very much fuel all about that we must perforce retain all the cures, the costly paraphernalia for fighting fire, in order to cope with the conflagrations that are bound to occur. But is it not the epitome of folly to keep on adding fuel? As the nation has grown in importance and prosperity so has increased its awful tribute to the Red Monster, though there is no more reason for that proportionate increase than there is for a proportionate increase of smallpox or the other pestilential diseases that have wellnigh been wiped off the list of our supposedly necessary evils.

The tribute levied upon us by fire has reached an appalling figure, something tremendous, and, mark you, unlike most "losses" that are, after all, mere exchanges of money or values from one man's or set of men's pockets to other pockets, this loss is absolute; all that remains after fire is—smoke! And so far, with all our vaunted inventiveness, no one has been able to turn the latter commodity into any commercial use.

Tabulations may be convincing but certainly are awfully tiresome reading, so let us eschew them. But we can well afford to give

a minute's time to a glance at the matter of the cost of fire, merely considering it in its general aspect and in round figures.

We actually have invested at the present moment $14,250,000,000 in the 11,400,000 buildings of which the nation boasts. Russia has 36,000 more buildings than we, but the total value of all her structures is but $3,500,000,000 (United Kingdom 7,100,000 buildings; France 9,000,000; Germany 6,000,000; Holland 1,000,000) so that we can safely say that we are the greatest builders of the age. Yet of all those millions of our buildings there are barely 4,000 that can



WRECKAGE IN BUILDINGS SUPPOSED TO BE FIREPROOF. 5097

lay any claim to being modern, up-to-date, and fire-resisting to the extent that their steel-frame and structural parts can not be over much damaged by fire, though all else about them is just as inflammable and damageable as the flimsiest construction of Slav, Mongolian, or other so-called semi-barbarian. In all this great country of ours there are probably not 20 what can rightfully be called moderately fire-proof buildings, and they are generally warehouses or structures of such character. Of the millions of homes throughout the land, palaces or cottages, there where we house those

who are dearest to our hearts and our most valued material possessions, there are but three hundred that would withstand for even a little while against even a moderately hot fire, and there are certainly not over ten that are fire-proof.

Intelligence, progressiveness. leadership, are words we frequently hear applied, aye, that we constantly use in describing ourselves, what application have they to our generally accepted mode of constructing buildings? True we have evolved the "skyscraper," no other people on earth have the conveniences in their homes nor do any other people bring such skill to bear in the utilization of every inch of space as we do, but, at the same time, let not those things make us over-conceited, for we have to acknowledge that nowhere else, not even in China or Japan, the lands of paper houses, is the annual fire loss in bulk or pro rata, anywhere near our own!

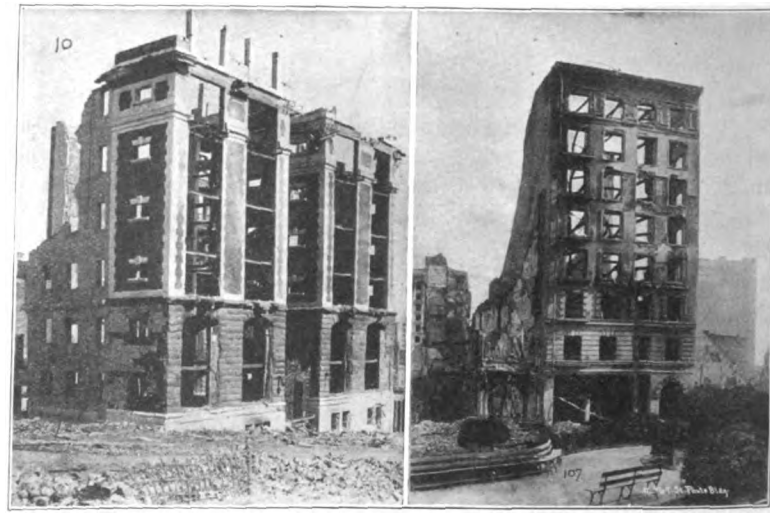
And what does this folly of flimsy building cost us? In the first place nearly 7000 lives are annually sacrificed to the god of fire. In property we have offered up over $1,000,000,000 worth in value on that same pyre in six years' time; our annual offering has reached the $200,000,000 mark. But, stay. That is our *normal* yearly loss. Now then, what constitutes a normal year? A period during which there are no extraordinary conflagrations. We have barely recovered from the Baltimore fire. That took up the year's total to $250,000,000. We were told that 1904 was therefore an abnormal year and probably would not have anything equal to it for the next twenty years. But here, just exactly two years later we are confronted with the San Francisco horror, a fire that has cost over $320,000,000. The year is but half over, yet if nothing else happens, no other great conflagration occurs, the year's losses are bound to aggregate over $500,000,000. Are we not more or less justified in calling these tremendous losses *normal,* and the years when they do not occur *abnormal?* True, the San Francisco fire was primarily caused by an earthquake, but the actual earthquake damage scarcely reached $10,000,000 of the enormous total we have just noted, and, earthquake or no earthquake, had San Francisco buildings been better built, had they offered less fuel for consumption there would certainly have been less to burn and therefore less total damage. But even in so-called normal years our average has reached three theaters, three public halls, twelve churches, ten schools, two hospitals, two asylums, two colleges, six appartment houses, three department stores, two jails, twenty-six hotels, one hundred and forty flat buildings and sixteen hundred homes burned every week. New

York averages 8700 fires a year, Chicago 4,100 and every day in the year there are 36,000 lives directly endangered by fire.

All on account of poor building!

We have built so wisely that 1,000,000 buildings have been destroyed by fire during the past ten years. What a commentary upon the intelligence of our architects!

Small wonder that we have to exhibit such wonderful activity in building as we do. Why, in New York alone there will be over $200,000,000 worth of construction this year, and in the entire country probably $750,000,000 will be spent in buildings during the year 1906. But what think you of the people, whatever its activity in the building line, that tolerates conditions that insure



RUINS OF BUILDINGS "PARTIALLY FIREPROOF." 5096

that there will be utterly wasted, destroyed, lost, in one year's time buildings equal to five-sevenths of the *entire* year's product?

But that is not the whole cost of fire.

We just noted that San Francisco has burned up over $300-000,000 worth of property, but her loss and the nation's, in business, in values, directly attributable to that fire can only be told in a figure of ten digits.

Then there is the costly paraphernalia we have to maintain to fight fire. In salaries alone we pay over $125,000,000 for our departments; then special water supplies, apparatus and all that sort of thing easily eat up another $200,000,000. And last but not least

is the tribute we pay to the gentlemen who condescend to gamble with us on the fire question, the insurance companies.

We have paid them in premiums $1,610,885,242 in ten years. True, they indemnify us for our losses to a certain extent, it is a case where we win sometimes, but as in all gambling operations "the house" gets and keeps the major share of what money comes within its door. For instance, last year, throughout the country we paid in premiums $196,352,374, and got back from the companies in paid losses $95,272,488. But in years like this their gamble is not so productive, it is a case where the bank gets broken. Some of the smaller fry simply close up and get out of business, others quibble and litigate, some pay up every dollar and try to look pleasant, and still others will try to effect compromises, but rest assured it will be many a long year before the San Franciscans will have gotten all that is coming to them rightfully from the insurance companies.

Perhaps I am captious in the matter and do not see the thing aright, but it does seem to me that to the insurance companies belongs very great blame for the deplorable condition of most of our cities. Those companies, to my mind, have been too complacent, or through design or through ignorance they have misled the people. The companies know what good building is and they expatiate much upon the subject but when it comes down to actual facts they do not refuse a bad risk, in fact they take it with surprising alacrity, and the difference in rates on a good building and a bad building is so little that the other gamblers, our average business men, are quite willing to take the chance. Why, in San Francisco, a notably poorly built city, a 90 per cent. "wood risk," the companies wrote a surprisingly low rate, because mark you, of the excellence of the city's fire department! A direct bait, an encouragement, a challenge to build poorly, and people seemed to gobble it up with avidity because there is only one other city in the country that built as shabbily, New Orleans.

The condition brought about by this insurance gamble is most distressing. People have kept on inquiring just how poorly they could build to get insurance, and the companies have seemingly vied with the municipal authorities in making the acceptable standard just as low as possible—allegedly for the benefit of the poor man—and the result is that the general standard is so very low that now people have to insure or are brought face to face with absolute, certain and total loss. The companies have the upper hand, and the people are in a species of bondage to them, a serfdom that is an outrage to our alleged intelligence. Did the companies know what they

were about? Was it a well laid scheme or have they simply blundered into it, is neither here nor there. The condition exists, and as the small boy says, "we are up against it."

Positively the only redress a sensible man has is to so build that he need carry no insurance with the companies, that his building be as nearly absolutely fireproof as possible, and that the only loss that can occur is from fire in the contents of some one unit of space in his building, an insignificant loss at best and one that he can insure himself. Such a building is possible, not prohibitive in first cost, indeed actually an economy ultimately and a very decided advantage to the individual and the community.

Of late the companies seem to have awakened to the realization that their own welfare really lies in the direction of better building, and they are offering some advantages and a lot of advice in that direction. But the greatest help can only be derived from people's own intelligence individually and collectively. Individually, they must see that such losses as we submit to these days spell, in spite of our great prosperity and seemingly inexhaustible resources, ultimate bankruptcy; collectively, communities must realize that the fire drain is intolerable and having come to that realization, it is only another step to an intelligent re-adjustment of taxation that, more than anything else, will bring about the much to be desired corrections in our mode of construction. Let our tax be adjusted against improved property on a sliding scale; let there be a certain standard of construction established; upon all buildings being built or in existence that are below that standard let there be assessed an increased rate, for it is on their account that costly fire departments and other municipal expenses are incurred, and let there be a decreased rate of tax levied upon buildings that are above that standard of construction, they require the minimum of protection and their owners should benefit accordingly. An equitable, sane and encouraging system of taxation.

The next question naturally propounded will undoubtedly be "What is a fireproof building?" The answer, strange as it may seem, will be to point to San Francisco: that of all places, would seem to be the one least qualified to aid us in our search. In that city of fire-traps there were perhaps fifty buildings, the newer and larger ones in which any attempt was made to minimize the ravages of fire. Think of it! fifty buildings, in which some little thing was done toward fireproofing, in all that great burned district of nearly eight square miles, 700 city blocks, probably 18,000 buildings. In 30 of that 50 the steel skeleton was protected with fireproof clay tiles or

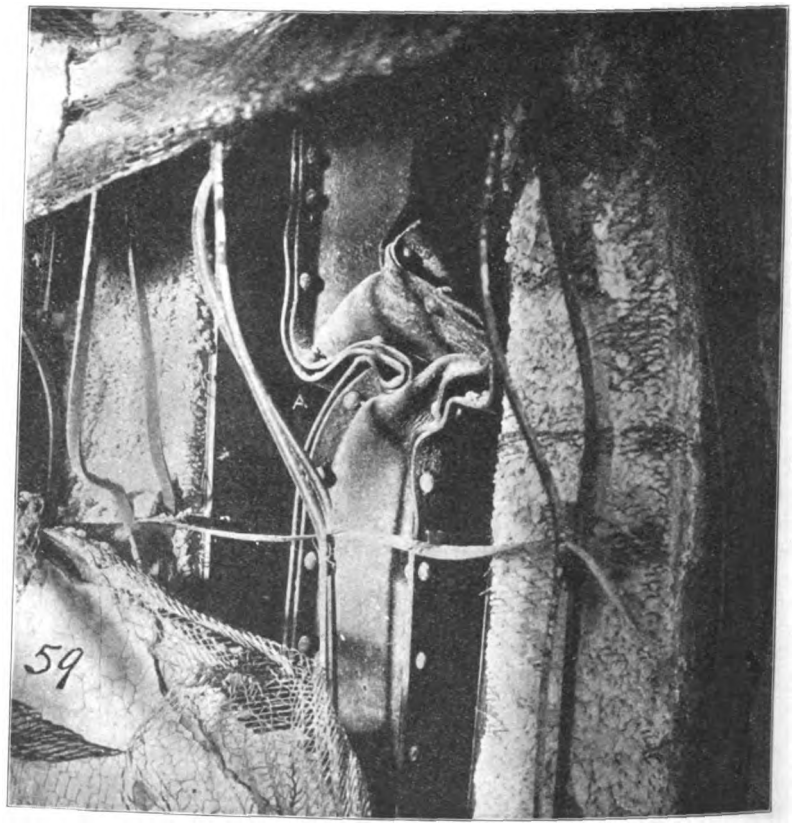
some one of the substitute concrete systems. Generally speaking throughout the country as well as in San Francisco, the moment a man makes that provision against fire, protects his steel work thus with tile and builds his floor and partition construction likewise of tile or of a substitute system of concrete he deems his building "fireproof," advertises it as such and people occupy it in that belief. All else about the building is as inflammable as the veriest tinder box, his interior finish, his doors, his windows, every thing that can

A BRICK BUILDING WHICH HAS WITHSTOOD INTENSE HEAT. [5005]
The brick and terra cotta walls are virtually unscathed.

possibly be so is of wood, and the result is that sooner or later his building in all save the actual structural steel and tile is more or less seriously damaged by fire and the term "fireproof" receives an additional black eye and people swear there is no such thing.

See what happened in San Franciso. All the tall steel-framed so-called skyscrapers were more or less damaged, all the way from 5 to 60 per cent. of their total cost. Those buildings, in most part, were fireproofed only in so far as their skeleton structure was con-

cerned, and even that in many cases was most imperfectly done. (With the fire hazard, conflagration possibilities so imminent and with the added hazard of earthquake all San Francisco's buildings should have been from 15 to 30 per cent. better in construction than is the average of our Eastern building while as a matter of fact they were all, even their very best ones, and in all respects—excepting only in



A STEEL COLUMN TWISTED BY HEAT. 5094
The effect of fire on insufficiently protected steel-work.

the bracing of the steel work against the earthquake which was well done—fully from 15 to 50 per cent. inferior in construction to our best Eastern standard.)

But, and here is the lesson, when the quake and fire were all over the inferior buildings wiped out of existence and the better ones, as I say from 5 to 60 per cent. damaged, and a careful inspec-

tion and survey made, it was found that wherever special precautions had been taken against fire or quake, though seldom more than *one* precaution in each building, some detail well done, that particular feature did its work admirably. Not in our time has there been such a fire nor any such opportunity to display separately the efficacy of so many of the features some of us who have been termed "cranks" have been insisting upon, and so therefore never before have all the things popularly termed "theories" been fully demonstrated as thoroughly practical realities, necessities of proper construction.

San Francisco is the greatest lesson in building that this generation has had. We thought Baltimore a pretty effective one, and for a while there was an unwonted activity in building departments, but that lesson has wellnigh been forgotten, even Baltimore has profited but little by it. Will this most awful lesson be more productive of results? Will our architects realize that any system or mode of building that makes it possible to have wiped out of existence three hundred millions of dollars worth of buildings at one fell swoop is no longer a real economy; will they have intelligence enough to see and appreciate what really did the most effective work of fire prevention in San Francisco severally, in the different buildings and assemble those details or items collectively in some one building and make of that a structure, one that in very truth will deserve, without any qualification to be called a full fledged, *absolutely fireproof* building? It can be done and easily.

Will they do it? Of all my personal faults pessimism has never been deemed a prominent one, yet, by all that is holy, I do verily believe that yet many a year will roll by and full many a horrible lesson will be engrossed in letters of fire before our seemingly unseeing eyes, and yet many a thousand victims and gold in dazzling piles will be offered up on the altar of the RED MONSTER before we will have begun to know that lesson even passably well and begin in a faltering way to apply it.