ought to have a greater interest in that life being maintained than in its termination. Had that been a ruling principle, the cases of "graveyard insurance" would have been less numerous. Suppose a trader were to offer his note for discount to a banker who knew that his customer would profit more by dishonoring such note than paying it, would he discount it? Any probability of this being a contingency would stop a banker from taking such paper. The same prudence should be shown to an even greater extent by life assurance companies. Then, in the selection of agents and medical examiners, there has not been sufficient care taken to secure thoroughly honorable and qualified representatives. From this cause have come not only instances of collusion between different persons amounting to a conspiracy to rob a company, but a number of cases in which material facts have been withheld, or misrepresented, which jeopardized the issuance of policies. By passing applications on such defective or falsified information, numerous frauds have been committed, and commissions and fees improperly obtained. Competition has become so keen, that the agents and medical examiners who are strictly conscientious are handicapped by those less scrupulous, as applicants are tempted to discriminate against a company which conducts its business on strictly actuarial principles. We speak of what we know in saying that some agents offer to get applicants accepted on very easy terms, so far as tests go as to health, habits, and family history. A whisky sot for instance has been certified to, as of "strictly sober" habits, the excuse being offered that, he was never seen drunk. In smaller cities and towns, where business is limited, agents are severely tempted to do all they can. Their personal associations are apt to weaken their fidelity as trustees of their company's interests, hence the more restricted the sphere the greater the necessity of having very upright representatives, men of irreproachable character and high reputation for honesty. Medical examiners also in many small places are apt to be more lenient than is desirable in passing applicants, from a fear of giving offence to individuals and their connections. When the choice comes of losing part of their practice, or acting unjustly to an insurance company, self-interest is likely to tip the scale in favor of the latter course. How far it is wise to have agents in less populous districts who can only earn a very scanty income out of commissions, and who therefore are not likely to be men of very high standing or ability, we must leave the companies to consider. Bankers secure men to fill positions at small branches, whose probity is equal to that of their superior officers, the life assurance companies should aim at elevating the standard of their representatives by such a policy as would raise them above the temptations of a very narrow and precarious income. Whether they realize it or not, the companies may rest assured that their permanent interests are best furthered by such forms of administration and management as keep their field of operations entirely free from temptations to wrong doing and the opportunities of fraud by wrong doers.

DEFECTS IN FIRE-PROOF BUILDINGS.

The destruction of the Manhattan Savings Institution, New York, by fire, which was supposed to be "fire-proof," affords the *Scientific American* text for some valuable remarks on the defects of such buildings. We publish them in a condensed and less technical form. The floors were carried upon 30 in. box girders running across the structure The outer ends bear upon brick piers,and the inner ends on cast iron columns built into the wall. These girders are 24 feet apart, and carry 15 inch beams spaced 4 feet centre to centre. Two thicknesses of dressed flooring are laid directly on the top flanges of these beams. When the fierce flames struck the lower flange of these girders, they stretched, the beams bearing on them sagged, pulling down the brick piers with it. This is inevitable when the main girders project below the ceiling line and are without fire-proof covering. Besides this defect the space between the flooring and fire brick was not filled with non-conducting material, so the open space became an air and fire duct by which the wooden flooring was turned into "a sea of fire." In disposing the fire-proof material upon a skeleton frame building, the first care should be to protect in the most thorough manner the columns and the main floor beams. In lofty buildings the cross girders have an important duty to perform besides carrying the particular floor of which they form a part. They are the ties which hold the main columns, upon which the super-imposed building rests in place. The collapse of two or three such girders in the lower floor must pull the main columns out of plumb, and hurl the whole structure to the ground. The ideal fire-proof building should fulfill three conditions:

1. It should be proof against attack from without.
2. The skeleton frame of steel columns and horizontal girders should be inclosed in some thoroughly fire-proof material.
3. It should be able to localize a fire, and confine it to the particular floor upon which it originates.

In the majority of buildings, the first condition is much neglected, and the two others are not sufficiently considered. The first condition can only be met by reducing the window space; building the walls with a facing of best fire brick; and providing a plate or roller shutter of steel for every window. The second condition can be reached by walling up every column and every main girder with high class fire brick; leaving between the brick and the metal a space filled with a preparation of asbestos, similar to what is used on steam piping, or some similar non-conducting material. The third condition can be attained by building fire brick floors with cement finish, abolishing all woodwork, and using metal window casings and sashes, providing each elevator landing with plate steel doors, and lastly, placing on each floor a powerful water supply. "Such a building," says the *Scientific American*, "would be costly, but it would be fire-proof." In this connection we may note that the American Surety Building, New York, now nearly complete, will be 314 feet high, it forms almost a square tower 85 feet on