BOILER INSPECTION.

The following address delivered by the President at the Convention of Boiler Inspectors held at Pittsburgh, Pa., Nov. 20th, is worthy of the careful consideration of every steamuser :---

Gentlemen of the Convention : We have assembled for the purpose, as I understand it, of taking counsel one of another as to the best means of accomplishing the objects for which the office of boiler inspector was created. The number of lives annually lost by explosions of steam boilers is so great, that it appears almost incredible that a majority of our states and cities have done nothing towards securing a proper inspection of so necessary and yet so dangerous an adjunct of our manufacturing and mercantile industries. In all manufacturing establishments of any importance, steam power is a necessity; and in hotels, mercantile establishments and other large buildings, it has come to be regarded as an essential requisite. Nothing that is so extremely dangerous, so liable to cause the loss of life and valuable property, as steam boilers undoubtedly are, should be permitted to be controlled by men who are ignorant of their management and know nothing of their danger. One more source of trouble and serious accident, resulting from the use of steam boilers, is chargeable to the unwise policy of steam users employing inexperienced and incompetent men as engineers; a position so responsible as that of engineer of a stationary engine is acknowledged to be, should not be occupied by a man who knows nothing of the management either of an engine or boiler. Why does any man incur such a risk to his own safety and that of his property ! There is but one answer; an incompetent man will work for less money than a competent man will. Should this be allowed, should any man, because thereby he may save a few dollars a month, be permitted to endanger the lives of his employes and of his neighbors ?

Most men of middle age have a vivid remembrance of the frequent occurrences of boiler explosions on our waterways: they were happening weekly. I once recollect of three explosions in one week on the Mississippi river, with a loss of one half million of dollars and sixty odd lives. There were hundreds of lives and thousands of dollars worth of property continually being killed or burned, or finding a final resting place at the bottom of some river or lake. It is not so, to-day, for we seldom hear of the boiler of a steamer exploding, although there is a larger number of marine boilers at the present time than there was before or during the war. What has wrought this wonderful change ? Inspection of boilers and competent licensed engineers. The inspectors are competent men appointed by the general government to examine every steamer's boiler, and no one can assume the position of marine engineer unless he is armed with a certificate of the government that he has been examined and found to be qualified for the position. Why should not the applicant for the position of engineer of stationary engines and boilers be subjected to a similar test ? Not in a few cities, states or countries, but the service should cover the entire country.

I have a list of explosions from March 1870 to March 1889 which I do not claim comprises all the explosions. It gives 2,267 explosions with 4,068 killed and 4,710 wounded. Of these, 801 explosions where 1,476 were killed and 1,122 wounded, were of threshing machines and saw mills. By carefully looking over the records of explosions, you will find in localities where there is an inspection service, there is not to exceed one third the explosions that occur where there is no inspection service; you will also find in localities where an insurance company is doing inspecting there is quite a reduction in the number of explosions. It cannot be expected that the insurance inspection would be as effective as state or city, as it cannot be made compulsory. I find in the city of St. Louis that the insurance inspection is a great assistance to our service.

We have much to learn, and no one should hesitate to avail himself of all knowledge that presents itself, come whence it may. We should willingly learn all we can relating to our special duties and as willingly apply all we know to the accomplishment of the good work in which we are engaged; we are endeavoring to protect life and property of the people and there is no service that is so great a protection to life and property. I also hope that before we separate we shall have effected a permanent organization. We should meet annually that each one may receive new encouragement and strength from the experience of the previous year.

The press can be of immense benefit to us and the service we represent, by disseminating facts bearing upon the subject of boiler inspection. As to what may be done here I have no doubt that the reporters will place us in a proper light before their readers. There is no aid so desirable, none so powerful as the support of a free, fearless and untrammeled press and its mission is to give its readers unvarnished facts and such comments as may be deemed necessary to a proper understanding of the subject.

HOW TO MAKE A GOOD FLOOR.

Nothing attracts the attention of a person wishing to rent or purchase a dwelling, store-room, or office, so quickly as a handsome, well-laid floor, and a few suggestions on the subject, though not new, may not be out of place.

The best floor for the least money can be made of yellow pine, if the material is carefully selected and properly laid.

First, select edge-grain yellow pine, and not too "fat," clear of pitch, knots, sap, and split. See that it is thoroughly seasoned, and that the tongues and grooves exactly match, so that when laid the upper surfaces of each board are on a level. This is an important feature often overlooked, and planingmill operatives frequently get careless and in adjusting the tonguing and grooving bits. If the edge of a flooring board, especially the grooved edge is higher than the edge of the next board, no amount of mechanical ingenuity can make a neat floor of them. The upper part of the groove will continue to curl upward as long as the floor lasts.

Supposing, of course, the sleepers, or joists are properly placed the right distance apart and their upper edges precisely on a level and securely braced, the most important part of the job is to "lay" the flooring correctly. This part of the work is never, or very rarely ever, done nowadays. The system in vogue with carpenters of this day of laying one board at a time, and "blind nailing" it is the most glaring fraud practiced in any trade. They drive the tongue of the board into the groove of the preceding one by pounding on the grooved edge with a naked hammer, making indentations that let in the cold air or obnoxious gases, if it is a bottom floor, and then nail it in place by driving a six penny nail at an angle of about 50° in the groove. An awkward blow or two chips off the upper of the groove, and the last blow, designed to sink the nail head out of the way of the next tongue, splits the lower part of the groove to splinters, leaving an unsightly opening. Such nailing does not fasten the flooring to the sleepers, and the slanting nails very often wedge the board so that does not bear on the sleeper. We would rather have our flooring in the tree standing in the woods than put down that wav.