

existing church, or the formation of a new church trust." The adoption of this resolution may not work to the advantage of architects, builders and supply firms, but there can be no question that it is a step in the right direction when viewed from the standpoint of the churches' interest.

THE seasoning of lumber by kiln drying is a process of recent development and a strictly scientific treatment is necessary to secure good results, more particularly with hard woods prepared for high grade work. It has been found that selections from the same variety of wood grown in different localities require radically different treatment and that perfect drying may be retarded or prevented entirely by too high a degree of heat, especially if applied to lumber soon after it has been put in the kiln. Special machinery and arrangement of the kiln together with experience are as much a necessity in this work as a similar combination of facilities and knowledge is in any other. It is one of the many subjects with which architects should be familiar under the head of growth, formation and chemistry of building materials. We shall not be surprised to find architects specifying ere long that lumber must be kiln dried by a certain process according to the best data available. Another question closely related to that of seasoning lumber is that of preserving wood. It is well known that there are several simple and cheap processes by which the natural resistance of lumber against rotting can be greatly increased. This kind of protection is not used as much as it should be. It is wonderful to see how short a time is required for sound wood in some positions to become thoroughly rotted. The systematic use of preservatives is but little developed and consequently a very great and unnecessary loss is going on always accompanied by insanitary conditions. The remedy for this is largely in the hands of the architects, from whom it should receive more attention.

THE architects of the United States, who have been making heroic efforts to bring about a reform in the method of designing government buildings are greatly encouraged by the strong probability that the present Congress will pass a bill to supersede the Tarnsey bill, in regard to which the president of the American Institute of Architects, Mr. Burnham, and the government officials had such an unpleasant correspondence as noticed in our issue of April last. After that correspondence it was deemed best to proceed by associated individual action instead of officially through the Institute. Several of the architects drafted bills and one drawn by Mr. Post practically satisfied everybody interested. This bill was taken to Washington and after undergoing a number of alterations was introduced in Congress by Mr. McKaig, of Maryland. It is admitted that the modifications suggested by the politicians were all in the right direction and made the bill a stronger and more desirable one than as originally prepared by Mr. Post. Some features of the bill are remarkable and well calculated to make the design and execution of government buildings the highest possible goal of the architect's ambition. To be considered eligible for government competitions is in itself made a high honor, as the bill debars any but an architect in chief of at least ten years practice, and any but those who can cite evidence of sufficient constructive and administrative ability. While the successful competitor will be awarded all the rights and duties of the architect in private practice at full established rates of compensation, very little remuneration will be provided for other competitors. A very modest per diem compensation is allowed to members of the commission who will have charge of competitions. The two features last mentioned are practically intended to limit the cost of the new system, including all expenses for competitions, to the one principal prize, the fee for carrying out the work, and outside of that to prevent any one entering competitions or acting as commissioners from other motives than a generous interest in their art.

THE earnest student of architecture takes upon himself no light task. We think it may fairly be claimed that the student who starts out to qualify himself for an architect, and is determined to master his profession, begins a course which requires an amount of patient and laborious training not exceeded in any line of human endeavor. There is one feature of this work

which affords a great relief—the fact that the large variety of knowledge through which he must range is stimulating, and on the principle that change of work is restful, may to some extent be regarded as recreation. But we often think students must be perplexed to decide what is really worthy of acceptance as truth in regard to questions that do not admit of mathematical demonstration. In another part of this number we publish an article on "How to Study Design", which contains some good points, but which would also bear some criticism. The student cannot accept such papers as an indisputable authority, but should cultivate the habit of comparing and sifting different writings on all subjects. Professional societies usually invite those considered most competent to present papers on various subjects and these papers are entitled to consideration. We sometimes notice that two writers, who would stand fairly equal in position and ability, express almost exactly opposite opinions on some matters. Then again strong statements are covered up by such generalities that the student can only understand that something is very wrong or very good as the case may be, but just what that something is, does not appear, so that if he wished to adopt the correct idea and keep clear of the bad he would still be very much in the dark. There seems to be a disposition on the part of many writers to avoid saying definite things about particular parts of work in such a way that faults or merits can be located in existing buildings or illustrated by imaginary examples. We hope to see a change in this respect. Meanwhile students will be safest who take the middle ground, and by careful discrimination seek to find the consensus of opinion among authorities on every subject.

THE contractor's business is always accompanied by risks of loss from many sources. Some of these are entirely beyond his control, and others can only be minimized by carrying on all parts of the business in the most systematic manner. The risks begin the moment a contractor commences to make up the quantities preparatory to tendering on any given job. The risks involved in this part of the business are of two kinds: first, the loss of time devoted to unsuccessful tendering; and secondly, the chances of error in quantities or estimate of values. The total amount of time given by contractors as a body to the work of making up tenders is a very large item, and is one of the channels through which they may suffer continual loss without locating it definitely. That the greater part of the time given to tendering is a direct loss, we think should be perfectly clear to every contractor. Any business man's time has a value for every hour, and if given to work from which there is no return, that value is lost. To illustrate: suppose a contractor who has no business on hand puts in a whole year of solid work in tendering without success in any case—if that contractor could have earned any wages in any other way during that time, by just so much has he suffered in actual money loss. The case is not altered by the fact that the contractor may be in a position to stand the loss or that he may have a large business on hand. Some part of that business will be carried on at a greater expense for lack of his personal time and attention. The other risk mentioned, that of liability to error, is one that should not be overlooked. It is hardly necessary to mention how it often happens that a contract is secured by some blunder of omission, and the contractor compelled to do the work at a loss, or perhaps to throw up the job and forfeit a deposit. It also happens that contracts are lost through error of getting figures too high. This is better than to err on the other side, but it is nevertheless far from satisfactory. These difficulties cannot altogether be overcome, but every available means should be employed to reduce them to a minimum. The contractor's business grows out of the demand for an agreed price for certain work, and prices cannot be given like a merchant's price for goods on the shelves, but require careful calculation in each case. No one is proof against making errors, but safeguards can be used which will afford protection from them. The different tenders for any work if carefully and intelligently prepared should not vary from each other more than ten per cent., but it is safe to say the difference is generally greater than this. A more general custom of having bills of quantities prepared by a professional surveyor—a method common in England but seldom used here—would be found of great value in bringing about more uniform tendering. By this means contractors would also effect a saving in