ly imagine that a thorough knowledge of technical details will compensate for a lack of knowledge of the art of their profession. There is hardly any modern pretenders so lacking in justification by their works as that of the architectural expert or specialist. It may be argued that this is the only scientific method of dealing with modern complicated requirements; if so, its scientific efficiency hardly justifies its artistic barrenness. My earnest advice to you is to make your practice cover as wide a field as possible; shun specialism, however lucrative it may appear.

Within the scope of a moderate practice you will find extensive demands made upon your knowledge. Apart from the capacity to design, there must be the ability to design within the limits imposed by the requirements of the Building Acts of London, Provincial and Urban Authorities, to utilize in the best way the properties of steel, iron, and concrete, as well as the older building materials, stone, brick, and wood. You must also be conversant with the latest patents in pavement lights, have a knowledge of the virtues of glass tiling, know the strong features of burglar proof sash fasteners and give a warranty that your door knobs will never come off the spindle.

Besides this all-embracing knowledge that is required of us, a new danger is rising up, born of our advancing civilization. We are now in the glorious days of trusts and combines, when everything is on a colossal scale, especially the capitalization, and no doubt the inherent poverty of our profession is the only thing that, thus far, has saved us. Think of the waste of energy going on in the artistic world to-day, of painters and sculptors creating pictures and statues and trying to find a market for them-often in vain. Imagine the immense saving that could be effected by a Pierpont Morgan buying up the output of Sargent, Whistler, Shennon, Swan, Guthrie, Laverv, Brock, Gilbert, Frampton, and putting these artists on regular employment at a fixed wage, under healthy conditions in a factory complying with all the requirements of the Factories Act, whatever these may be. Saved from the rapacities of the "dealer," in Bond street and out of it, what magnificent works these men would turn out, while the public would no longer have to go to the dealers to be advised as to the safest thing into which they might invest their money, as if works of art were mining shares and dealt in for the rise or tall of an active market. The only bar to the success of such a scheme comes, strangely enough, from the artists them-

I have talked so long on some of the realities that little time is now left in which to speak of the ideal practice. It is like the promised land—before our eyes, but never beneath our feet. Of what would such a practice consist? we ask, and every one's temperament will dictate a different answer.

The ideal practice must surely be that which ensures the evolution of the individual in the advancement of his art. To progress along parallel lines with your art must be a desirable thing, though it can hardly be said that, as a rule, our practice affords many facilities of this kind. Some requirements necessary to this end are common to many of us; these may be summarized as follows:

Work which is congenial to our temperament, and in which a healthy interest may be taken.

Time to think out our problems as a whole, and evolve slowly every detail. Absence of all "rush and worry."

An appreciation of the good points in our designs by those for whom the work is done.

A few assistants, good men and true, who will carry the know-ledge gained a step further on their own account.

I could guess the young practitioner's ideal to be, that his buildings would turn out as fine as his conception of them, but the hard facts of reality destroy the charm of those imaginings.

I could guess the middle-aged practitioner's ideal to be, to begin again, with all the vigor and enthusiasm of youth, coupled with the matured experience of his years, but this combination is impossible of realization.

I could guess the old man's ideal to be, to be spared to practice for a few years that great art to the threshold of which many years of travel has brought him, but the inexorable summons comes, he steps across another threshold, and the door closes behind him for ever.

As far as the necessities of living will permit us, I think we should do all we can to realize our ideal practice, to advance the science and art of our calling, to do justice to our clients, our builders, and ourselves, and to uphold the honor and dignity of our profession.

## PRIZES FOR ENGINEERS.

The Arstrian Minister of Commerce has offered prizes of £4000, £3000, and £2000 for the three best designs to be submitted, showing methods of raising and lowering canal boats for an elevation of 131 feet, with the least possible consumption of water, in crossing the watershed between Prerau (Moravia), the head of the March basin, and Altendorf, the head of the Oder basin of the Danube-March-Oden Canal.

The method of accomplishing the object is to be left entirely to the competitors, who are also at liberty to submit proposals for constructing the works in accordance with their designs, so that the competition should appeal to a wide circle of engineers. If the execution of the work is not entrusted to the person whose design is adopted, a premium of £8000 will be given to him, in addition to the prize, when the successful operation of the contrivance has been demonstrated. Information for competitors will be furnished gratis by the commissioner for the construction of water ways at Vienna and by various provincial governors of the Empire; and by various Austro-Hungarian embassies. Plans and drawings must reach the Minister of Commerce by March 31, 1904.

## PRESERVATION OF STEEL BUILDINGS.

From a report by Mr. Jas. P. Whiskeman, Assoc. M. Am. Soc. C. E., to the Superintendent of Buildings of New York, giving the results of a careful examination of the Pabst Building, the following deductions are made relative to the conditions necessary to the preservation of steel structures :- That the preservation of steel depends mainly on the protection afforded by paint, or the encasing of members in concrete or lime mortar, and that steel can resist oxidation when these protective coverings have been thorough; that paint is not always reliable in damp walls; that cast iron withstands rust better than steel. The connections of iron and steel are most liable to be attacked by rust, and these should be well painted or cover ed with a material like cinder concrete. All the unpainted steel-work, tie-rods, hangers, and expanded metal were found rusted more or less, and also the angles and flanges of girders, showing that the paint had in many cases been rubbed off, or had not been coated after fixing. Considerable care and supervision is necessary in seeing that the specified coats are applied. The splice plates of columns are often found to have rusted behind, caused by scraping, or the paint has been rubbed off, so with heads of rivets, which are often rusted before the flanges and webs. All machined surfaces, pinholes, riveted work should be painted or coated with pure white lead and tallow, erection another coat of paint is necessary, or boiled oil should be worked into all joints.

The subscriptions to the fund for the erection of the Queen Victoria Memorial in London have reached the sum of £230,000. The architect, Mr. Aston Webb, and Mr. Thomas Brock, the sculptor, are proceeding with the work.

Sir Robert Giffen, in a paper recently presented to the British Association, showed that £223,000,000, or 16 per cent. of the total annual expenditure of the British people is spent for housing, including furniture, coal, gas and water. The speaker "considered the sum to be very large, and that probably in various directions, by individuals and classes, perhaps so much is spent that there is considerable economic waste; but for the mass of the people the housing arrangements are not sufficient for civilized life, or even for good health."