other hand, must we overlook the influence of novelty and curiosity in exciting inventive ingenuity. The great improvers of the arts are either their devoted followers or total strangers to them; the indifferent general public prove, when they offer advice, only ignorant intermeddlers. The Huntingdon brewer, called Oliver Cromwell, could teach a military trick or two to Prince Rupert and his cavaliers. The Newcastle collier, George Stephenson, was so wonderful at engineering, that they could not make him a civil engineer. The gardener, John Paxton, because he knew nothing of architecture, became Sir John as the architect of the Crystal Palace. I am not certain, indeed, that the industrial arts have not been as much advanced by strangers as by acquaintances.

At all events, one of the chief, and I confess unexpected, obstacles I encountered in seeking to fill the industrial museum with examples of art, is the too humble estimate which men form of their own callings. I cannot persuade a shoemaker that shoes are of interest to any but shoemakers and the barefooted public, although he looks with eager curiosity at my collection of hats in all their stages. I tried in vain to induce a very intelligent glass-maker to send me certain specimens of glass, till I showed him a full series of illustrations of brush-making. His eyes brightened with interest, and he admired the ingenious and unexpected devices which an art strange to him revealed. Well, said I, be sure the brush-maker will be as much interested in your glass as you are in his brushes, so send me what I ask. I cannot, accordingly, help inferring that a stranger's curiosity will often make up for his defective experience, and that the industrial museum would secure his services for all the arts it represented.

But whether such services be rendered by experts or by novices, this at least is most certain, that not one of the great industrial arts can stand still. In proportion as they are flourishing, every day witnesses old processes altered and new ones introduced.

When the duty upon common salt was removed, and our practical chemists began to make soda from it, they threw into the air all the muriatic acid evolved from the salt. Their neighbours complained of the acid fumes, and, at immense expense, the chemists built gigantic chimneys to send the vapours nearer the stars. By and by the price of sulphur, with which they cannot dispense, rose, and they changed the construction of their furnaces so as to burn iron pyrites in them. Then the price of soda fell, and they blew up or dispensed with their tall chimneys, using instead great condensers, and converting all the obnoxious vapours into chloride of lime, or bleaching powder. Then the value of bleaching-powder altered, and they took to producing the chlorine which it contains in a new way: afterwards the oxide of manganese, which is needed for that manufacture, grew scarce, and a most ingenious method of recovering it and using it again was devised, and is in practice. Lastly, not satisfied with the quality of the soda they made, they had mounted their huge furnaces on axles, and make them revolve like barrel-churns roasting on spits, so as thoroughly to intermingle all the ingredients which, by their mutual action, produce the alkali.

This is no solitary case. Some years ago they were trying in a London court of law at the instance of the excise the question: "What is paper?" This is one of those subtle legal problems which —like that other, "What is metal?" argued between a road mender, a glass blower, and an iron founder, each of whom calls the material with which he deals metal—will multiply on our hands in virtue of the very progression of the arts which I am considering. Yet waiving the question, "What is paper?" the theory of paper-making is simpler than that of almost any other of the industrial arts, but how is it with its practice? For years I have at short intervals availed myself of the privilege of visiting the admirable paper mills in our neighbourhood. At every visit I find some great change; since I saw several of them a few months ago, important alterations have been made, and are still making. When our venerable townsman, Mr. Alexander Cowan, began paper-making, it was all made by hand, by a process so slow, that they can do now in hours what took weeks, sometimes months, before. Year after year everything has been altered. On the chemical side —new bleaching agents, new correctors of the evils of over bleaching, new sizes and ways of making sizes, new colouring matters, new modes of glazing. On the mechanical side—new machines for rag-cutting, washing, boiling, paper-weaving, sizing, drying, cutting, folding, stamping. One half the arrangements within my own remembrance are totally new, and above the horizon, newer and newer devices arise on every side.

If it is so with a comparatively simple art, how must it be with the more complex ones. The hot blast is but one accompaniment and index of the improved manufacture of iron. The Sydenham Palace is but one mark of the improvements in glass making. Coal gas is but one step in the improved use of fuel. The whole machinery of sugar-making is as novel as it is economical. Bread can be baked on an hour's notice by iron hands as cleanly as expeditious. Steam engines which almost seem intelligent, card, dye, and weave, whatever textile raw material you give them, and by and by cut it and sew it, if required.

Had we only, accordingly, the old industrial arts, thus for ever renewing themselves, the necessity for keeping pace with them would be argument enough for an industrial museum, where their progress could be watched and studied by all. But besides those elder sons and servants of mercantile enterprise—who, like the eagle, seem to grow younger as they grow older—think of the infant arts which have been born in our own day, and are younger than most of us. Each of them, a Hercules in his cradle, has already strangled serpents, and has more than twelve labours before him. Railway-making, electro-metallurgy, electro-telegraphy, and photography, may here represent those Titanic babes, who, already with mature faces, are bidding all men look to the new time-ball which they have dropped before them, and see that their chronometers are set by that.

IV. I have hitherto referred almost solely to exhibitional galleries of the museum. To render, however, their contents useful to the public, they must be carefully classified, intelligibly labelled, and described at some length in suitable catalogues.