

IMPROVING PROSPECTS OF TRADE.*(From Martineau & Smith's Hardware Trade Journal.)*

There no longer appears reason to doubt the advent of that better day for which all who are in business have anxiously longed, bringing with it a return at least of activity if not of prosperity, and to a considerable extent dispelling the gloom which has so persistently overhung our industries. The symptoms of reviving trade were first manifest in the United States, where the transition from a paper currency to a genuine specie basis reacted in extinguishing panics and fluctuations in the money market and in restoring confidence. Commercial stability in the United States is always accompanied by energetic speculation and rivalry in enterprises,—success in which is calculated not so much on immediate as on future needs. This reaction from lethargy to briskness operated in the stimulation of our own markets, and orders of gratifying magnitude began to pour in for iron, and for steel rails, and other manufactures. The movement thus initiated has now taken broader scope, and from most of the iron and mining centres comes the welcome intelligence of furnaces being blown in, collieries re-opened, and workshops employing larger numbers, and even running full time. Not alone in the production of raw material has the revivifying glow of dawning prosperity been diffused. It has been felt in different departments of skilled labor, and so cheering is the outlook that many are inclined to believe we have actually seen the worst of the bitter period of depression, and that English industry and inventiveness, instead of drooping, will reassert a powerful ascendancy. It is even maintained that were our Transatlantic cousins to cease their patronage, the stimulus which has been given to trade would by no means die out, any such general reaction having intricate ramifications. It may not be that the high prices which have been obtained will continue, but we may expectantly trust that the business transactions of the future will be remunerative and encouraging, and not as in the immediate past, a matter of dubiety whether there has been loss or profit.

At a time like the present, manufacturers should more than ever be on their guard to sustain the credit of good workmanship in whatever they produce. And we also think that workmen should have a considerable and thoughtful regard for the interests of trade by laboring with head and hand honestly, and avoiding strikes as a lever to the raising of wages. They have by no means been the deepest sufferers during these years of despondency. Employers have been on the brink of ruin while awaiting the commercial revival. But there are signs that the warning so frequently given is held as cheap by the agitator and his dupes, and we may anticipate a most untimely recurrence of the usual revolts by which labor adjusts its accounts with capital. In contrast with these painful and violent remedies, will be the fair settlement of trade difficulties by arbitration, and let us trust that its principle will be approved as applicable to an increased proportion of disputes.

A HOROLOGICAL BUREAU.

Arrangements are now being perfected for the establishment of a horological bureau in connection with the Sheffield Scientific School at New Haven, Conn. A suitable building will be erected, a telescope mounted, clocks placed, and every possible convenience arranged to make the bureau as perfect and complete as possible. Mr. Waldo, the gentleman who is to have charge, is already upon the ground and directing the progress of the work.

There are already one or more establishments of the kind in the country—notably the one at Cambridge, which supplies the time for the railroads converging at Boston. But the supply of approximately correct time is the only use for which this and other observatories of the kind in this country have hitherto been employed, while the chief object of this new observatory, in addition to determining time, is the rating of watches, a thing which has not yet been attempted in this country.

To rate a watch is "to determine the rate of its gain or loss in respect to true time." Swiss watches are rated in Europe, and have been greatly improved thereby. No American watches have ever yet been rated, and manufacturers in this country are placed to disadvantage in consequence. Work of this kind has always been considered government work, or the work of scientific associations. It is now, for the first time, to be inaugurated here, under the direction of a liberally endowed association. This bureau will add nothing to the educational advantages of Yale, but will be simply a scientific work.

In initiating the work, after everything is in readiness, a sidereal clock will be started, as nearly correct as possible, after which observations will be made, to get absolutely correct time. In arriving at such a result, the sun is not the central point; but some of the numerous clock's stars, as they are called, whose time is known, will be selected and observations made at night, although with the larger stars observations may also be made in day time. The sun will be abandoned, because one observation in twenty-four hours is not enough; an observation may be made with each star every twenty-four hours. New Haven time will be taken, but New York time will be furnished also. The Waltham Company will send 100 or 200 watches for rating, as soon as everything is ready. "Rating" for private parties, we presume, is paid for, and will form, to some extent, a source of revenue to the bureau. This bureau will probably furnish standard time for the whole country, as time can be sent by telegraph and computed for any known longitude.

GELATINE NEGATIVES: WILL THEY KEEP?

From the day I first developed a gelatine plate in October last until the present time I have been so satisfied with the fact that the "new" system of taking negatives is better than the "old" that I have never gone back to collodion and nitrate bath. For portraiture, groups out of doors, view, interiors, and copying, not one wet plate has been used, and the consequence is that I have now about 5,000 gelatine negatives. Everything has been satisfactory as to rapidity, rich detail, brilliancy, and convenience; but occasionally I have been dreadfully annoyed and alarmed as I have looked at my increasing stock of negatives, at the tendency of the gelatine to absorb damp, and so spoil some of my best productions—so alarmed that I have had secret forebodings that after all I must abandon my "new love." I have again and again asked myself—What are all the advantages, &c., if the negatives will not keep? Many negatives taken lately have been for publication; suppose that after a few dozen prints have been made the negative is spoiled, what about future orders?

During the past few months negatives have been brought to me from the printing-room quite spoiled, apparently through simply being caught in a shower of rain, for printing out of doors has been a risky kind of work of late. In my negative-room a pane of glass was broken, and the damp atmosphere attacked scores of negatives and so damaged them that they could not be printed from; in fact, these films are so sensitive to moisture that if in retouching a negative a wet finger be used to remove a mark the negative is injured at once.

All my negatives, of course, are varnished, and all kinds of varnishes have been tried, but none I have used will prevent the damp from going through it to the gelatine. It has been suggested to me that imperfect fixing and washing was the cause, or that some trace of hypo. was left in the film. Showing one of these negatives to an eminent west-end photographer he decided that, without doubt, hypo. crystals were present. Now, however, hypo. may behave itself with collodion, it is a well-known fact to gelatine workers that whenever it is left in a gelatine plate the film will never dry; and, as I am careful to test for hypo. by washing the plate until the droppings from it are colourless on white paper, I knew it was not imperfect washing. Soaking in alum was suggested by a very successful maker of the plates.

At one of the weekly meetings of photographers—which, by the by, is forming one of the most practically useful meetings one could wish for—I presented a few negatives to show the effects on damp, etc. Amongst them was one which had been soaked for two hours in a saturated solution of alum. This negative was dried and varnished, exposed to rain-drops for a few minutes, and in a short time the unmistakable swelling commenced, proving the fallacy of the idea that you can make gelatine into leather by soaking it in alum!

Now for the prevention and cure:—For the last four weeks I have had a negative purposely exposed to the weather, and, as every London photographer knows, it has been damp enough. This negative is as perfect to-day as on the day I put it out of doors. It was treated thus:—After thoroughly desiccating the gelatine by heat it was allowed to cool, then coated with plain collodion, and afterwards varnished. I know by experiment that benzole and India-rubber will protect a negative in a similar way, but I would not recommend it. In reference to those negatives that have been damaged: if they are carefully revarnished I find but very slight traces of the previous markings will be left.