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THE INCREASED CONFIDENCE IN BUSINESS CIRCLES.

There is a growing feeling that the tide of our commercial fortunes has turned and that the ebb which set in three or four years ago has brought us to a low water mark from which we shall see a flow of steady prosper- ity. As we go to press there are pleasant tidings of in- dustrial establishments being started on full time, of others which have been long silent resounding with the busy hum of activity. Wholesale houses are sending out their travelers and conditional orders are being set in execution. One can hear a great sigh of national re- lief go up that the tremendous tension of the past few months is over, and there is a very distinct quickening of the national pulse and a general spirit of expectancy of good times to come.

How far these hopes are justified, how early will be their fulfillment, we do not undertake to say; but we wish to remind our readers that if the good times are to be permanent they must come in a natural way, and not as the result of any artificial and therefore evan- escent stimulus. There is a tendency in the daily press to push the thing along faster than is natural or ex- pedient. The sick man must learn to walk before he can run. The credit of the country has been prostrated even to the point of death, and we must not expect that it will recover its full strength and virility in a day. Indeed, the past commercial history of the coun- try shows that recovery is very slow; and it takes very little to give the patient a serious relapse. If we refer back to a period of which the present is strongly sug- gestive—the year 1873—it was not until the year 1880 that the country had fully recovered from its depres- sion; and while we do not for a moment suppose that prosperity will be so belated in the present case, we do not believe that we are going to move at a bound from the one extreme to the other. Nor would it be desira- ble. "Boom times" are in some respects very bad times. Better a steady, legitimate growth than a hasty, arti- ficially prompted, hot-house sprouting.

The nation has been learning valuable lessons dur- ing the last few years of depression, and we shall do well to make the present hour of restored confidence a starting point for a fresh growth in wealth and power whose motto shall be "make haste slowly."

THE REVOKING OF THE CYANIDE PATENTS.

Elsewhere in this issue we republish a statement which appeared in the New York Sun regarding the recent canceling of the cyanide patents by the High Court of the Transvaal Republic. The news will come as a great surprise to the mining world at large, and there will not be a corner of the earth where refractory gold is recovered by this very successful process—and it is at work in every quarter of the globe—where the revoking of these patents in the Transvaal gold fields will not produce a decided sensation.

The Sun is of the opinion that the result of this de- cision will be that "nowhere in the world will the users of the process continue to pay royalties, but will fight and overthrow the patents everywhere," and that the ruling of the Transvaal court "will result in im- mense additions to the world's stock of gold within a few years." We think, however, that this is overesti- mating the weight which a judgment of the Boer court will carry, especially when it is remembered that the parties who will be most seriously hurt by the decision are Utlanders and Englishmen. Not that we think the Boer court would intentionally give a decision at variance with the evidence; but in a suit of such mag- nitude as this we think that, in view of the recent strained relations of the Transvaal Republic, the min- ing companies of the United States and Australia will accept with some reserve the recent decision at Pre- toria.

Moreover, there are certain historical aspects of the case which would make us hesitate to believe that the Transvaal judgment will be repeated in this and other countries. If this delicate and highly scientific pro- cess was elaborated before the year 1866, it was years ahead of its time, and appeared before there was any urgent demand for it. It is only in comparatively re- cent years that the attention and efforts of the mining world in general have been directed to the working of very low grade ores. In the earlier periods, prior to 1866, gold mining was carried on in the rich alluvial deposits and in the workings which lay comparatively near the surface. The "free gold" apparatus—the pan, rocker, battery plates, etc.—gave place to the various chlorinating chemical processes for working refractory ores, long after the period in question; and it was not until the year 1890 that Mr. Macarthur, in a paper read before the Society of Chemical Industry, described the steps by which he had arrived at his final invention of the cyanide process, the announcement being made at a time when the mining world was ripe for it, and looking eagerly for a solvent of gold which would have more affinity for gold than for the sulphides, and for a method of recovering the gold from the solution. The story of the discovery of this process, as told by Mr. Macarthur, shows that, whether there had been a pre- vious discovery by another party or not, the final re- sult in this case was arrived at as the result of patient search carried out on scientific lines.

The contest over the validity of the cyanide patents raises again that old question as to who should be the beneficiary of a valuable invention: the party who outlines a device and never puts it into working shape—perhaps because he does not realize its value, or per- haps because he is indifferent to it—or the man who produces the same invention as the result of an intelli- gent effort to fill a public want, and having proved his theory, labors until he embodies the theory in a ma- chine or a process of real commercial value.

Howe held his sewing machine patents by the de- cision of Judge Sprague as being an inventor of the latter type; and the world at large honors Bessemer, but has forgotten Kelly.

We cannot agree with the writer in the Sun that the annulling of the cyanide patents would "result in im- mense additions to the world's stock of gold within a few years;" for behind such a statement lies the as- sumption that the present output is limited by the ex- istence of the patents. So far from this being the case, the cyanide process has greatly increased the output of gold by enabling the miners to recover millions of ounces which were formerly rebellious against any ex- isting form of treatment. The removal of the royalties would increase the mine owners' dividends by the amount of the royalties, but it would have no effect upon the output.

In this respect these patents, like all patents, have had a stimulating effect upon industry; they have recovered for the use of commerce and the arts millions of the precious metal, which, but for the patents of Mr. Macarthur, would now be lying in the tail heaps.

ANOTHER COMPARISON OF UNITED STATES AND BRITISH RAILROADS.

In a recent issue we drew attention to a comparison of American and British railroads by the Engineer, in which the editor reached the consoling conclusion that, as regards the construction of their track, English engineers have nothing to learn from American prac- tice. We now notice that Engineering has recently made an interesting comparison of English and Ameri- can roads based upon the Board of Trade returns and Poor's Manual, which is marked by a candor and im- partiality which the Engineer would do well to emulate when speaking on matters pertaining to this country.

During the past year 270 miles were added to the total mileage of the British railways, as against 1,628 miles in America. This Engineering considers to be relatively greater for Great Britain "when the re- spective area and necessities of the two countries are considered;" but we think that, if the mere just basis of the respective area and population per square mile be taken, it will be found that the 1,628 miles is rela- tively greater than it appears. There is no doubt but that, during the years of prosperity previous to 1893, the railroads were built faster than the necessities of the country called for them, and during the past few years there has been but little demand for fresh con- struction. The efforts of the management have been directed to betterment and repairs, and a large amount of capital has been expended in relaying the track with heavier rail, replacing wooden bridges with steel and stone structures and building better stations and yards.

In a comparison of capitalization we show to advan- tage. In the Eastern States contiguous to and includ- ing New York this amounts to \$125,000 per mile; in the Pacific States it varies from \$50,000 to \$60,000 per mile, whereas in Great Britain it is as high as \$236,400 per mile. These high figures for Great Britain are to be put down to the very costly nature of the construc- tion, especially in the large cities, which boast of mag- nificent terminal stations, approached by high level viaducts which have been built at a large cost for land and damages. As an offset to the high capitali- zation of British roads it is pointed out that they earn 3.95 per cent on their liabilities, as against 2.94 per cent earned in the United States.

It is pointed out that, while the cost of construction of British roads is double that of the United States, their receipts per mile of railroad are "more than three times greater—\$19,220, against \$6,170." At first sight this is a comparison which will be more satisfactory to British railroad interests than to our own; but, as Engineering very fairly points out, these receipts are the smallest for the United States and the largest for Great Britain for many years past. Our contemporary fur- thermore says: "Of course the conditions in the two countries are so very different that no very useful deduc- tion can be made from comparison of the results," and in the case in point this is specially true. There are long stretches—many thousands of miles—of railroad in America which are merely connecting links between habitable and cultivable districts, which are laid over barren deserts, and which contribute practically noth- ing to the per mile earnings of the roads. There is nothing of the kind in England, and in any compari- son on a basis of average per mile earnings we must necessarily stand at a great disadvantage.

In the United States one-fourth of the receipts come from passenger traffic; in Great Britain, one-half. It is claimed that "British railways work more economi-