## Scientific American.

ESTABLISHED 1845

MUNN & CO., - - - EDITORS AND PROPRIETORS.

PUBLISHED WEEKLY AT

No. 361 BROADWAY, = - NEW YORK. \_\_\_\_\_

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## (Established 1876)

(ESTRUBISHED 15/0) is a distinct paper from the SCIENTIFIC AMERICAN. THE SUPPLEMENT is issued weekly. Every number contains is octavo pages, uniform in size with SCIENTIFIC AMERICAN. Terms of subscription for SUPPLEMENT, \$5.00 a year for the U.S., Canada or Mexico. & KOU a year, or £1 4s. St., to foreign countries belonging to the Postal Union. Single copies 16 cents. Sold by all newsdealers throughout the country. See prospecties, last page. Combined Rates.—The SCIENTIFIC AMERICAN and SUPPLEMENT will be sent for one year, to one address in U.S., Canada or Mexico. on receipt of seven soldars. To foreign countries, eight sollars and fifty cents a year, or £1 18. 11d., postage prepaid.

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# Scientific American.

# ECONOMIC ASPECT OF THE ENGLISH ENGINEERS'

STRIKE.

Looked at from the American standpoint, it is evi-

dent that in the recent struggle between employers and men in the English engineering trades, the employers have been fighting for the interests of labor fully as much as for their own. While the ostensible object at which the Amalgamated Society of Engineers was aiming was the reduction of the working time of the men to forty-eight hours a week, or eight hours a day, the actual object was the control of the output of work, the right of the society to determine the proper law officers, and other officials, who may always be examount of finished product to be turned out by a given pected to expedite hearings and make a decision equitaamount of labor. In other words, the fight has not ble alike to the public and the patentee; while here an principles of shop management which have made in getting through any special legislation in that body American shops the most economical in the world and are too well understood to encourage hope of success American machinists at once the best paid and most on the part of inventors who might think they had productive that ever stood at a vise or ran a shop good ground to apply for extensions of their patents. tool.

The theory that the introduction of labor-saving machinery is prejudicial to the interests of labor is one that has long ago been exploded in this country. Our artisan classes have come to understand that the cheapening of a product, due to the use of improved machinery in its manufacture, increases its sale and demand to such an extent that for one skilled artisan who is displaced five others are employed to meet the demand so produced.

Indirectly the late strike may be traced to the influence of American competition upon the British enclosely observed by English manufacturers, and the ents granted thereafter were prohibited. methods by which we have been enabled to undersell of the men rather than to any conservatism and lack of enterprise on the part of the employers. The strike, the race for commercial supremacy.

Now that the employers are at liberty to run their the public as to yield the inventors no return. establishments with a free hand, we may look for a speedy assimilation to American methods and an extended use of American tools—a change which, while it may render the English keener competitors, is certain to open an ever increasing market for the special methods will enable England to compete successfully less than \$10,000.

However, it is certain that in spite of the temporary loss to both capital and labor, the late struggle will considerably higher than the average monthly figures prove to be a positive benefit to the engineering trades of Great Britian. Unless we are mistaken, the \$15,000,000 in wages and the \$200,000,000 in trade which conditions. The value of the December exports was the six months' struggle has cost will ultimately prove \$124,474,435, and of the imports \$51,514,733, an increase to have been no extravagant price to pay for the vin- of the exports of \$7,200,000 and a decrease of the imdication of the fundamental economic  $\ensuremath{ \mbox{principle which}}$ 18458 has now been established.

## EXTENSIONS OF PATENTS.

ask a similar boon oftener than has been customary," as "many other inventors of equal merit find themselves at the end of the period covered by an original patent in a worse plight than his."

Whatever encouragement, however, may be afforded by this precedent to those seeking extensions of English patents, it is evident that the matter of obtaining extensions of United States patents stands on a very different footing. Applications for such extensions in England are examined by a committee of the Privy Council, composed of eminent noblemen, the leading been so much one of labor against capital as of labor extension is only to be had by act of Congress, and the against labor-saving machinery and those modern great difficulty and inevitable delay always experienced There has been but one extension of a United States patent in the last twenty years.

But this has not always been the case in regard to United States patents. By the act of 1836, the Commissioner of Patents was empowered to grant extensions of patents, the Secretary of State and the Solicitor of the Treasury, in conjunction with the Commissioner of Patents, being then constituted a board to hear evidence in support of applications for such extensions.

By the act of 1848 the power to grant extensions was conferred on the Commissioner of Patents solely, but by the act of 1861, by which the term of a patent was gineering trades. The wonderful strides which we made seventeen years, instead of fourteen years, as have made, especially in the past decade, have been had previously been the case, all extensions for pat-

It may well be questioned whether this legislation them are better understood upon the other side of the was altogether wise, and whether the mere lengthenwater than is generally supposed. There is every ing by three years of the terms of all patents should reason to believe in the light of recent events that the operate as a bar to any extension of a patent, no matsurvival of what Americans would term antiquated ter how meritorious the case, or what might be the tools and out-of-date methods in some of the first-class | equities involved—for this is practically what it establishments of that country is due to the opposition amounts to when the sole power to make extensions is reserved by Congress to itself. Even were congressmen always willing to entertain probably meritorious looked at in this light, was a conflict between the old cases, there are too many members to permit the House order of things and the new, and luckily for both to make any practical examination of the questions masters and men it is the new that has triumphed. which might thus arise, but which would be quickly Had the labor unions prevailed, subsequent history disposed of by a small board of disinterested officials, would have shown that the victory was a hollow one in conjunction with a representative of the Patent and altogether delusive. The right of the unions to Office. Such a board, including possibly a justice of determine the output of labor would have proved a the Supreme Court, might be depended upon to safedrag upon the wheels of British industry which in a guard the interests of the public in all cases, and still, very few years would have left it hopelessly behind in in many instances, grant extensions on meritorious patents which had so tardily come to be appreciated by

## OUR INCREASING FOREIGN TRADE.

The statistics of foreign trade, recently issued by the Treasury, show a truly remarkable increase over the preceding year. The exports reached the great total machine tools for which this country is famous. It is of \$1,099,129,519, an increase of some \$93,200,000 over an interesting question how far the adoption of our those of the year before. The imports were valued at \$742,630,855, an increase of some \$61,000,000 over those with us in those lines on which we are at present able of the year 1896. The excess of the exports over the imto undersell her. Unless the British manufacturers ports was \$356,498,664, an increase of \$32,200,000 over have been making exceptional profits, it is difficult to the excess of the previous year. The figures of the see how in certain lines they can ever come down to exports and imports of gold coin and bullion show a American prices; as, for instance, in the locomotive decrease, the exports being \$34,174,182, a decrease of export trade, where we can deliver an engine for \$7,000 some \$23,800.000 over the year 1896, and the imports which the British manufacturer refuses to build for being valued at \$29,079,540, a decrease of no less than \$73,600,000 for the year.

It is noteworthy that the figures for December are for the year, showing that the growth of the foreign trade is steady and likely to continue under existing ports of \$7,400,000, compared with the figures for December of 1896. The excess of the exports over the imports for the month was \$73,900,000, as against an excess of \$58,200,000 in a comparison of December of last ear with the same month in 1895.

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It is a notable fact that the instances in which exten-

In this connection the figures of British foreign trade sions of United States patents are granted are now and have been since 1861, extremely rare, and such for 1897 will be of interest. The total value of exports also seems to be the case in England, although, accordwas \$1.150.000.000. a decrease of \$28.500.000 on the preing to The London Times, the judicial committee of ceding year, and the imports reached the enormous total of \$2,020,000,000, an increase of \$46,50,000. The dethe Privy Council did, on December 9, extend the ducreased exports are attributed to foreign tariff restricration of a patent beyond the usual term of fourteen tions, particularly those of this country, and to the enyears. This was the Timmis patent, taken out in gineering dispute referred to in another column. 1883, for a new method of working and interlocking

railway signals by means of electricity. The patentee "laid stress on the dislike of the companies to make use of a novel and untried method, and on the circumstances that he was out of pocket, and had so far earned no profits." The Times very justly remarks that "No doubt many inventors of useful contrivances tural development of Egypt which has occurred under find, at the close of the period covered by their patents, the so-called protectorate of Great Britain. that they have made little way. Prejudice has to be overcome, interested opposition to a novelty may be

## THE INDUSTRIAL OUTLOOK IN EGYPT.

The former United States consul at Cairo, Mr. F. C. Penfield, has contributed to the February number of The Forum a valuable paper regarding the agricul-

The writer holds decided views as to the moral aspects of the continued occupation of Egypt, so long strong, or the need for the invention may not be great after the ostensible objects of that occupation have been until such period is nearly run out," and suggests that achieved. He is convinced that the British governthis ten-year extension "will encourage inventors to, ment not only intends to remain permanently in pos-