ASTRONOMICAL NOTES.

BY BERLIN H. WRIGHT.

PENN YAN, N. Y., Saturday, November 9, 1878.

The following calculations are adapted to the latitude of New York city, and are expressed in true or clock time, being for the date given in the caption when not otherwise stated:

PLANETS.

	H M.		H.M.
Venus rises	6 10 mo.	Saturn in meridian	8 35 eve.
Mars rises	5 14 mo.	Uranus rises	0 29 mo.
Jupiter sets	9 41 eve.	Neptune in meridian	11 09 eve.

FIRST MAGNITUDE STARS, ETC.

	H.M.		H.M.
Alpheratz in meridian	8 46 eve.	Procyon rises	9 57 eve.
Mira (var.) in meridian	10 56 eve.	Regulus rises	0 05 mo.
Algol (var.) in meridian	11 44 eve.	Spica rises	4 42 mo.
7 stars (Pleiades) in merid.	0 27 mo.	Arcturus sets	6 06 eve.
Aldebaran in meridian	1 16 mo.	Antares sets	5 26 eve.
Capella in meridian	1 54 mo.	Vega sets	0 14 mo.
Rigel rises	8 21 eve.	Altair sets	10 58 eve.
Betelgeuse rises	8 07 eve.	Deneb sets	3 19 mo.
Sirius rises	10 22 eve.	Fomalhaut in meridian	7 35 eve.

REMARKS.

The third magnitude star, *Eta Tauri*, will be occulted by the moon immediately after rising on the evening of November 10. This star is also called "The Light of the Pleiades," being the brightest member of that cluster, and near its center. The star will disappear at the moon's eastern limb, 37° from the north point, and reappear about 90° from the north point toward the west.

Venus is moving eastward among the stars of the constellation *Libra*, and is very near the second magnitude star *a Libra*. Mars is very near the eastern limit of the constellation *Virgo*, being 10° east of *a Virginis* (Spica), and, having an eastward motion nearly equal to the earth's, he rises now at nearly the same time he did one week ago.

The Satellites of Mars.

The authorities of the National Observatory have lately published in pamphlet form Professor Hall's "Observations and Orbits of the Satellites of Mars, with Data for Ephemerides in 1879." As many different accounts of the Professor's discoveries have been given, some of them very wide of the truth, we think that the following condensation from the discoverer's own account, now just published in the above pamphlet, together with such description of the satellites as can be obtained from the observations so far made, will be interesting to our readers:

It appears that in the spring of 1877, the idea of availing himself of the then approaching favorable opposition of the planet Mars struck the Professor as a good opportunity to make a search with the large Clark reflector for a satellite of this planet, but on examination the literature of the planet showed such a mass of observations of various kinds by the most skilled astronomers that the chance of finding a satellite appeared to be so slight that but for the encouragement of his wife the Professor would probably have abandoned the search. But a more thorough examination of the observations showed that hardly any astronomer of note had made any special search for satellites since the time of Herschel. Professor D'Arrest, of Copenhagen, had, however, made a search about 1862 or 1864, but failed to find any satellite, and his failure was a further discouragement to Professor Hall; but remembering the power and excellence of the Clark instrument, he thought there was still a slight chance, and began a thorough search early in August, at which time the geocentric motion of the planet would make the detection of a satellite easy. His attention was first directed to several faint objects at some distance from the planet; but all these proved to be fixed stars, and on August 10 he began to examine the region close to the planet within the glare of the light surrounding it, by sliding the eye piece so as to keep the planet just outside of the field of view and then turning the eye piece so as to pass completely around the planet. This night nothing was discovered, as the satellites were very near the planet, but on the night of the 11th, after several sweeps around the planet, a faint object was discovered that afterward proved to be the outer satellite, but fog from the Potomac prevented any further observation at that time, and it was not until the 16th that the satellite could be seen again, owing to unfavorable weather. On that night sufficient observations were made to show that it was moving with the planet, and on the succeeding night, while the Professor was watching for the outer satellite, the inner one was discovered. The observations of the 17th and 18th put beyond doubt the character of these objects, and the discovery was publicly announced. The peculiar motion of the inner moon puzzled the Professor, as it appeared on different sides of the planet on the same night, which made him think that there were two or three inner moons; but a close observation throughout the nights of August 20 and 21 showed that there was but one inner moon, but that its frequent appearance was caused by its rapid motion around the primary, which is in less than one third the time of the primary's rotation—a case unique in our solar system.

Of the various names proposed by different parties the Professor has chosen those suggested by Mr. Madan, of Eton, England, namely, Deimos for the outer satellite, and Phobos for the inner one, after the names of Mars' chariot horses, or his sons or attendants, as some translators have it.

The Professor gives an exhaustive review of the observations of these minute bodies at the observatories of Washington, Greenwich, Oxford, Cambridge, Glasgow, Paris, Pultowa, and other places, from which it is deduced that Deimos revolves around Mars in 1·262429 mean solar day, and Phobos in 0·3189244 of a day, both moving very nearly in a plane of the equator of Mars. The hourly areocentric motion of Phobos is 47·033°; and on account of its rapid motion and its nearness to the planet, this satellite will present a very singular appearance to any inhabitants of Mars, if such there be. It will rise in the west and set in the east, and will pass the outer moon, whose hourly motion is only 11·882°. The distances of these satellites from the center of Mars are: for Deimos 14,500 miles, and for Phobos 5,800 miles. The semi-diameter of the planet being 2,100 miles, the horizontal parallaxes of these satellites are very large, amounting to 21° for Phobos. The nearness of this satellite to the surface of the planet will produce apparent eccentricities of its motion and cause it to appear as a variable star. Its nearness to its primary will make it the most difficult to see, although the brightest of the two.

The size of the satellites is not well known, although it is certain they are very small. From comparative measurements of their light, Professor Pickering, of Harvard, estimates Deimos to be six miles in diameter and Phobos seven miles, but other observers have been led to place them at from ten to fourteen miles in diameter.

Professor Hall gives considerable data for calculating ephemerides, which will be found useful in facilitating observations of the satellites in 1879, but the matter is too long for the space we have at command, and we must therefore refer our astronomical readers to the pamphlet itself, which may be obtained by sending to the National Observatory at Washington.

CALIFORNIA MINING VS. FARMING.

A conflict of interests has arisen in California between the hydraulic miners and the farmers of the neighboring valleys, in which a most important principle is involved, and which is likely to seriously affect mining interests throughout the West.

In all communities founded on mining interests those interests naturally take precedence of all others, and are, it is well known, pursued without much consideration for any rights that are opposed to their absolute rule. So it has happened that for many years the hydraulic miners, constantly increasing in numbers and in the extent of their operations, have carried on their work regardless of all results but those which should bring profit to them. But, in the meantime, the agricultural interests of the State, which had held a secondary position, have been growing, until now they rank first in importance, and claim to have rights which even mining companies are bound to respect.

The farmers, especially of Sutter and Yuba counties, complain that the rich river bottoms, the most fertile portions of the land, are being ruined by the miners. "The débris from the mines chokes the rivers, raises their beds, diverts their currents, and is spread by the freshets over the alluvial valleys in layers of mud and sand that destroy tillage and cover the fruitful land with barrenness."

The citizens of Sacramento valley have formed themselves into an organization called "The Anti-Débris Association of the Sacramento Valley," and have adopted articles of agreement binding the members to prosecute to final adjudication in the court of last resort any case now pending or that may hereafter be instituted for the purpose of determining the right of miners to use channels of rivers and their tributaries as places of deposit for débris, thereby destroying large bodies of valley land, etc. And these organizations are extending throughout a great portion of the State.

Already the land owners on Bear river have formed a protective society, and have brought suit against the company whose mines the river washes, in behalf of one of their number whose lands have suffered.

The miners are naturally unwilling to give up a long exercised privilege, even though it is destructive to their neighbors' property, and are thoroughly united in defense of their prerogatives. Their organization extends the entire length of the State, and when one mine or company is attacked in the courts the expense of litigation is borne by all of them in proportion to their value; and their capital may be counted by millions.

We quote from one of our contemporaries that: "In the interest of the miners it is urged that they have for thirty years had the right of throwing their tailings into the streams, and that this right is part of the title of every mining claim; so that to take it away is to despoil the miners by wholesale, to destroy many millions of property, and to bankrupt whole counties."

What the law of the case may be the courts will decide; but as far as the permanent interests of the State are concerned, it can hardly be doubted that if it has come to a question between the two, agriculture is more important than mining. It is hard to believe that no way can be found of working the mines profitably without sending the tailings down stream, or that if this were the case the mines could be valuable enough to make their preservation a matter of vital importance. But in any case it is likely that another generation will exhaust the mines, and if in the meanwhile they are allowed to destroy the valleys below them, there will be nothing left worth preserving in the region in question. Under these circumstances few uninterested persons will doubt where the interests of the State lie.

To an outsider, moreover, it would seem that in a State where society is still somewhat inchoate, as in California, it was of no small importance to establish clearly the principle that one industry must not be practiced in such a way as to destroy another.

That the struggle will be a most severe and protracted one is certain, because of the important interests and the wealth involved, but it may reasonably be doubted if the defense of long and unopposed usance urged by the miners will, in the end, prevail.

A decision in favor of the mining corporations would be interpreted as giving to all miners privilege to encroach on other interests; while a contrary decision would encourage, we fear, such widespread litigation on the part of owners of lands anywhere adjacent to mines—for claims for damage will rest on other causes than hydraulic mining—that many valuable mining properties will cease to be worked unless the mining laws are modified for their protection.

PROGRESS OF OUR FOREIGN TRADE.

In answer to inquiries with regard to prospects of foreign trade, a member of the largest dry goods house in this city said, recently, that in consequence of the increasing demand for American goods in England and abroad, English merchants were copying American labels and trade marks, and placing inferior goods upon the market as American products. His house had met this sort of competition in China and in South America, and had received frequent complaints from merchants who had bought such fraudulently marked goods. Their trade with South America and Australia was increasing and very satisfactory. Owing to the poor credit of merchants in Mexico caused by the unsteady government and the wholesale smuggling on the frontier, their trade was not cultivated. The demand for American cotton goods in China was growing, the exports from this port during the last week in September amounting to over $200,000,

A prominent manufacturer said that a considerable part of the recent increase in trade was due to foreign demands. The trade with South America in his class of goods was steadily increasing, and now the markets of that country are largely supplied by America, whereas a few years ago they were almost wholly controlled by English and German houses. In England the American manufacturers of lamps, fixtures, and clocks were meeting with much success, owing to their superior designs and workmanship.

The head of a large furniture house said that the export trade in furniture was constantly increasing. A few years ago not more than three houses in this country shipped to South America; now there are over a hundred, and they have nearly driven out of that market the English, German, and Australian dealers, especially in the chair trade. Business with Australia and other countries was also increasing.

A large dealer in iron and general hardware reported an increasing export demand for American goods. American manufacturers are very popular abroad, and were being largely imitated. The use of American models, and the forgery of American labels, however, would not pay in the long run, he believed, nor would the imitations materially injure the sale of genuine American products.

Explorations in Greenland.

The Danish Government, says *Land and Water*, have published a report from the three gentlemen whom they sent some time ago to explore the land between the colonies of Godthaab and Fredriksthal. The report, dated Fiskenas, August 9, states that the expedition has obtained very valuable results. M. Dalager, who in 1751 had reached the "Gunatak," a mountain which rises out of the ice north of Fredriksthal, reported that far to the east he observed a series of mountain peaks, which he supposed to be the east coast of Greenland, but although this was generally supposed to be an error, the question had not hitherto been solved. An exploring party, under the command of Lieut. Jensen, R.D.N., has now succeeded in reaching these mountains, which were situated about fifty miles from the border of the icefields, after no small amount of suffering. The expedition, consisting of three Danes and one Greenlander, entered the icefields on July 14. On the 24th, the foot of the mountain range, after much suffering, was reached, but all the toil and sufferings of the explorers appeared to have been useless, as it appeared impossible to ascend the mountains, the fog having again become intense. This was followed by a violent gale from southeast, accompanied with heavy falls of snow, which lasted six days, and as provisions and fuel began to run short, and several of the party felt symptoms of snow blindness, notwithstanding the snow spectacles, it was decided to return, when fortunately, on July 31, the weather moderated, and the sky became clear, and on this day the highest mountain was climbed. The height of this mountain was ascertained to be about 5,000 feet above the level of the sea, and on the other side of the mountain ridge the icefields were observed without interruption as far as the eye could see, the plateau apparently gradually rising higher and higher. It is now consequently proved that this mountain ridge is not the east coast of Greenland.

Gold Amalgams.

M. Kazanoff has made several experiments on gold amalgams. It was found that apparently fluid gold amalgams, containing different quantities of gold at ordinary temperatures, on being squeezed through thin leather bags, give as filtrates amalgams containing the same amount of gold; during these experiments amalgams of different concentrations gave filtrates containing 0·126 per cent of gold. These facts show that amalgams filtered through thin leather are similar to solutions of solids in water, the concentration of which chiefly depends on the temperature of the solution.

How a Good House Should be Built.

Messrs. Duggin & Crossman, well known architects and builders, of this city, publish the following suggestions to persons about to build a city house, the result, as they state, of their own long experience.

Masons' Work.—Sound, hard-burned Haverstraw brick only should be used. Do not economize by using "up-river" or other cheap brands. The rear wall should be carried up two feet above the roof, and coped. Proper outlet through this wall should be left, connected with an extra large head or receiver, to the rain water leader. This avoids the use of the old-fashioned metal gutter, which is very objectionable.

All outside rear brickwork should be oiled and painted, as it thus retains a bright color longer, and a much drier house is thereby insured.

Avoid Sodding and Flower Beds to the Rear Yards.—In place thereof, have the whole surface of the yard covered with artificial stone pavement, on a good bed of concrete. This cement paving is considerably more expensive than sodding, but it effectually prevents the soakage of water from the yards, and thus guarantees a perfectly dry cellar.

Carpenters' and Cabinetmakers' Work.—Double beams, bolted together, should be placed under all cross partitions; and wherever it can be done, the studding of the partitions above should rest on the head of the partition beneath, and thus avoid the inevitable shrinkage that will occur in the beams.

As soon as the beams are placed in position on the walls and thoroughly cross-bridged, and before the brickwork above is started, the common floor should be laid. This protects the work, and acts as an additional brace to the structure.

After the plastering is all completed, and before the wall base and casings to the doors and windows are placed in position, careful levels should be taken on each floor; then, before the finishing floor is laid, the entire surface should be brought to a billiard-table level, by nailing strips, as may be necessary, to the common floor. The finishing floor should always be laid after the wall base and the door and window casings are nailed up. Thick felt or deafening paper should be placed between the common and finishing floors. The finishing flooring should be laid crosswise of the common floor. This counteracts the shrinkage of the plank, and acts as an additional brace to the house.

The window frames should, in all cases, have a partition strip in the boxes, to prevent the clashing of the weights (this very important matter is seldom attended to); noiseless pulleys for the cords should be used. The inside stop-bead should be not less than two inches, and, with inside blinds, three inches wide, so as to give abundance of room for the window shades. See to it that, after the window frames are placed in position, the mason carefully points up with cement all the air holes and spaces around the frames.

Where sliding doors occur in wood partitions, the pockets should, in all cases, be lined with narrow-tongued and grooved boards.

The white pine work should receive one coat of shellac and one coat of paint before being taken to the house. This prevents the seasoned pine absorbing the moisture from the new building. The casings to the doors and windows should be put together by cabinet makers in the factory months before they are required in the house. This permits of the work being thoroughly seasoned, more carefully and neatly executed, and allows the mouldings to be nailed from the back, thus avoiding the objectionable puttying up, always consequent upon the old method of nailing up the mouldings in the building.

The hard wood work or cabinet finish should, in like manner, be prepared months before it is required, so as to enable the finishing to be done in ample time for it to harden and dry. In finishing the hard wood work, shellac should be avoided, as it is a material only for a day and not for all time. The grain of the wood should be first thoroughly filled with an approved filling material. Afterwards the work should have repeated coats of the best copal varnish; this should be allowed to dry thoroughly hard, and afterwards rubbed down with pumice. Portions of the work can be finished with a dead gloss, or be polished to suit the taste. In the finishing of hard wood, temporary effect can be obtained at a trifling cost; but a lasting finish can only be assured by the free use of time, labor, and material, as stated above.

Plumbing and Drainage.—If it be necessary to study economy, save the outlay on any other item in preference to this, the most important work of the building; to secure good plumbing, it is recommended to have it done by day's work and not under contract. By purchasing the best material, employing selected mechanics, applying practical experience and common sense, there need not be any difficulty in securing a system of plumbing and drainage that will guarantee health, instead of, as in very many cases, causing sickness and death.

The drains should be of 6 inch iron pipe, secured to the walls of the cellar, and not placed beneath the cellar floor, as is usually done. This system allows of a more rapid descent to the sewer in the street, guarantees positively air-tight drains, and permits of examination by the occupant of the house, and immediate discovery of any leakage, should it occur. Where earthen drain pipes are placed under the concrete in the cellar, there is danger of invisible bad work, leakage, and consequent escape of foul matter into the earth beneath the concrete, filling the sub-cellar with a polluted atmosphere, and so finding its way into the dwelling portion of the house. The cellar floor should be graded to the lowest point, where should be placed a trapped drain leading to the sewer.

The rain water leader should be connected with the iron drain pipe, and thus act as a ventilator to the drain. The leader should always be of smaller diameter than the drains, so as to prevent the possibility of siphoning the traps of soil pipes.

The foot of all soil and waste pipes should be thoroughly trapped before they enter the drain.

All of the soil and waste pipes should be continued up the full size to about three feet above the roof, and on top of these ventilating pipes should be placed an Emerson exhaust ventilator.

There have been many complicated and so-called safety traps lately introduced; however, the old-fashioned S trap is all-sufficient, if properly applied. The traps to wash-basins, butler's sinks, kitchen sinks, etc., should be not less than two inches in diameter, and have a seal of not less than two inches. These traps should always be placed above the flooring, so that they can be easily got at either for examination or repairs. Where large sized traps are used, and the waste pipes are of proper size and thoroughly ventilated, siphonage is impossible.

The flooring beneath all washbasins, bath tubs, water closets, housemaids' sinks, etc., should always be lined with lead, so as to protect the ceilings below from leakages, should they occur. The waste pipe from this safe pan, as it is called, should in no case be connected with the soil or waste pipes, but should have an independent pipe, carried down to and emptying on the floor of cellar.

The iron waste pipes and drain pipes should have the joints calked with molten lead, thoroughly driven in. All the hot and cold supply pipes should be of not less than AA pipe.

Heating.—One of the most important matters in the warming of a dwelling is the proper arrangement of the hot air pipes, so that the hot air shall be equally distributed throughout the building in such a manner that the use of one register in the house does not deprive another of its proper supply. This can only be done by a careful calculation of the cubic feet of air to be heated in each room. The hot air pipes, commencing at the cellar, should be graduated in size in such a manner that they produce a uniformity of supply throughout.

In regard to the different methods of warming, namely, by steam heating, hot water, or hot air apparatus, there is but little to say. The vast difference in cost will influence the purchaser to a great extent. The hot air furnace is about one quarter the cost of a steam heating apparatus, and therefore more readily meets the wants of the public. In selecting a hot air furnace there is a very great choice as regards healthfulness and effectiveness. It is a settled scientific fact that heat emitted from wrought iron is far more conducive to health than that from cast iron; the latter being of a porous, granular nature. it allows the coal gas to penetrate into the heating chamber and thence into the house. This does not occur in wrought iron, it being of a more compact, fibrous nature. Therefore, it is advisable to use well made wrought iron furnaces.

A very important matter connected with the furnace is the cold air box. This should be of galvanized iron, for the reason that when made of wood the great shrinkage of this material too freely admits impure air from the cellar into same, and thence into the furnace up through the hot air flues and registers into the different apartments of the house. These unpleasant odors are too frequently charged to the furnace, when they really proceed from the defective cold air box.

Furnaces should have self-supplying water cisterns, so as to fill automatically the evaporating pan inside the furnace.

The Condition of Manufacturing Interests in Germany.

The Chamber of Commerce and Industry of Stuttgart has published its yearly report. From this elaborate and useful publication we condense the following statements concerning different industrial branches.

In regard to the manufacture of artificial alizarine, the consumption of the same is stated as exceeding by 50 per cent the largest quantity of the natural article ever produced, amounting to 50,000 pounds of 10 per cent paste a day. Alizarine is to-day by far cheaper than that article ever was while solely manufactured from the root. An advance of 100 per cent on the present price, however, would hardly cause a decrease in consumption.

Sixteen factories, employing 390 men and furnishing about 2,000 pianos a year, are at present devoted to that branch of industry at Stuttgart. Besides, there are four establishments manufacturing the mechanisms, employing sixty hands. There are also four manufacturers of parlor organs, employing 112 men and furnishing about 1,600 instruments a year. Business has been reported as very good for the past year, especially as to exportations to Chili, Brazil and the Island of Java are concerned.

The reports from the iron districts are discouraging. Consumption has, on one hand, decreased considerably, while the opposition made by England, Belgium, France, and America has been growing continually. High taxes, high prices of coal and a lack of skillful and experienced workmen prove a serious obstacle in the way of a prosperous development of the German iron interests.

The manufacturers of German silver and silver plated ware report an improvement in the condition of trade compared with last year. They attribute a great influence in this direction to the protection offered to the manufacturer in devising and offering new designs, by the new trade mark clause of the German patent law.

A reaction of the present deplorable condition of business matters in the United States is shown in the dullness existing in the exportation and manufacture of corsets and linen goods throughout Germany. The gross value of corsets manufactured has decreased considerably, from 10 to 25 per cent having been estimated. England's purchases alone, as an exception, amounted to about 10 per cent more this year than the year previous.

The manufacture of clothing has, in spite of the decrease caused by the opposition of the United States in South American markets, increased considerably. Prices are, however, very much depressed.

The shoe and leather manufacture is threatened with total extinction by the opposition made by the United States. America furnishes a better article at a lower price than it can be produced in Germany. Unless the German government creates a high protective tariff on hides, leather, and manufactured goods, Germany will for the future be unable to compete with American goods in its own markets. Austria even makes quite an opposition in the shoe line in Germany, as wages are much lower there than in the German empire.

Labor in Chicago.

The Chicago *Tribune* lately sent its reporters to investigate the labor market of that city. The foundries, rolling mills, and manufactories of the city were visited in turn, and inquiries were made with regard to the number of hands employed, the number wanted, applications for work, and so on. Of twenty establishments, employing 5,000 men, ten had all the men they wanted, and five wanted more, but could not get them, while the remaining five had very few applications for work. One employer stated that in his line there was not a man in Chicago out of work through necessity. Others believed that any honest man that wanted work could get it for a laborer's wages, $1 to $1.50 per day. Skilled men get from $2 to $3 per day, which gives fair support, considering the low price of the necessaries of life. The *Tribune* is convinced that the clamor of "no work" and "hard times" does not come from men who work and want to work, but from those who ornament the street corners waiting for better times and higher prices.

Jetties Under Water.

General Q. A. Gillmore proposes to improve the ship channel at the entrance of Charleston harbor by means of low jetties. It is known that Charleston bar has changed very little in either location or magnitude within the last hundred years. Measured along its crest line, or line of least depth, the bar is about ten miles long, its average width between the inner and outer eighteen foot curves being about one mile and three fourths. There appear never to have been less than four nor more than six channels over the bar, the greatest depth of water—rarely exceeding thirteen and one half feet at low tide—being sometimes found in one channel and sometimes in another. Between the channels the depth of water along the crest does not exceed three to four feet in many places. The mean rise and fall of tides is five and one tenth feet, and the area of the tidal basin formed by the harbor and its branches is about fifteen square miles. Gen. Gillmore's project contemplates the construction of two jetties of riprap stone resting on a mattress of timber and brush, one springing from Sullivan's Island and the other from Morris Island, located upon converging curved lines, with the convexity turned toward each other, in such manner that their sea ends on the outer slope of the bar will be parallel to each other, and distant apart from one half to five eighths of a mile. The length of the north jetty will be about 9,000 feet, and that of the south jetty a little over 13,000. The distinguishing feature of the project appears to be that the half of each jetty next the shore is kept very low.

The north jetty will have its crest twelve feet below the level of mean low water, where it crosses the Sullivan's Island Channel, while the crest of the south jetty will be fifteen feet below the same level where it crosses the main channel abreast of Morris Island. From these lowest points the jetties rise gradually as they approach the bar, and the sea ends, for a length of 3,000 feet, are carried up to the level of two and a half feet above low water. A considerable volume of water will therefore ebb and flow over the tops of the jetties, and a proportionately less volume will pass out and in between them, the height of the jetties and their distance apart being mutually dependent on each other.

Inventors Needed in England.

At the recent meeting at the English Associated Chambers of Commerce, American improvements and inventions were mentioned as gravely threatening the manufacturing supremacy of the kingdom. The London *Spectator* states the fact and the remedy in plain English, in this way: "The world has discovered it can have too much of Manchester goods. Lancashire must discover a newer tune for Europe and Asia to dance to than sized cotton. If it desire to make a reasonable profit on its growing capital, it must use a little inventiveness, and vary its note."