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WHAT KEEPS SOLID BODIES HEAVIER THAN WATER SUSPENDED IN A RUNNING STREAM?

The question here propounded is one of more practical importance than at first sight it may appear. As the sole object in increasing the velocity of the flow of water in rivers by means of dikes and other appliances is to enable the water to keep suspended, or, not to beg the question, to enable the solid matters to remain suspended in the water, so that they will not deposit in the form of bars, it becomes important to be able to ascertain the precise amount of narrowing and straightening that will secure the desired velocity; and the question with which we have headed this article is certainly important in deciding the question of velocity.

To use the words of an able cotemporary, Engineering, in an article entitled "Fluvial Abrasion," contained in its issue of June 25th, "Velocity alone is needed to convert half a gallon of shot and half a gallon of water into a plumbeous porridge; indeed, lead, or anything, however heavy, will swim in water if the water only runs sufficiently fast."

Engineering goes on to criticize the views of one of its correspondents in regard to this subject, but in our opinion it makes one rather serious mistake, especially as in the article referred to it assumes the rôle of "philosopher," which it plainly tells its correspondent he is not, although an "able and conscientious engineer." It says, "Mr. Login arrives at what we think must be an erroneous conclusion in deducing from various premises that a certain amount of the energy of running water is absorbed or expended in carrying with it solid matter in suspension. In first putting this matter into motion, power is unquestionably abstracted from the water; but as soon as uniform flow is established the solid matter flows in obedience to its own gravitation, neither receiving from nor imparting to the water any power whatever.

"Its tendency to continue its onward motion is sufficient to overcome gravitation, and as it moves with water of its own velocity, it is in equilibrium 'fore and aft,' and thus it moves on with no resistance whatever, unless it be argued that its rate of advance is less than that of the stream. If so, it would drop at once, and the conditions of flow would cease."

If this be philosophy, or if the assumption that uniform flow can be at some time fully established be not begging the question, then have we much left to learn in the elements of physics and logic.

Let us examine this singular proposition in the light of the following well-known and admitted natural laws.

1st. If two or more forces act upon a body at the same time each of these forces produces the same effect as if it acted alone.

2d. The quantity of motion imparted to a body by a constant force is in proportion to the time of the application of the force.

3d. If two forces act simultaneously upon a body in different directions not opposite, it will move in the direction of neither, but in a line between them.

A bed of a river is an inclined plane down which the particles of water roll. If it were perfectly smooth there would be no friction and consequently no wear of the bottom, but as the bottoms of all streams are more or less rough, the projections receive the force of the descending water, and, if the current be strong enough, are forced from their beds and either rolled along the bottom, or, if the impetus is strong enough, are carried out on a line nearly parallel to the base of the inclined plane into the stream. When this has taken place gravity acts upon the body, not in a line parallel to the in-

clined plane, but in a line perpendicular to its base, which tends to draw the body down to the surface of the inclined plane again by a constant force equal to the difference between the weight of the solid floating body heavier than water, and the weight of an equal bulk of water. What counteracts this tendency during any period of time if not the motion of the water? And as the overcoming of the action of a constant force implies a constant exertion of some other force, how are we to escape the conclusion that a constant demand is made upon the momentum of the flowing water to keep stones or sand supported in a current?

The motion of the water obeys the same laws as those of other bodies rolling down an inclined plane; water being practically homogeneous, no part of it seeks by its own gravity to regain the surface of the plane. But a stone carried along by the force of a stream is constantly making this effort. Something prevents it and that something can be nothing else than the water. If stones, or sand and water, were flowing downward by the force of gravity alone in a vertical line, all would move together (not taking into account resistance of the air) at equal velocities for the same points in the line of descent. But in no other case could this occur. As soon as the stream is inclined the heavier body begins to seek the bottom of the channel, and is only prevented from reaching it by absorbing motion from water flowing more rapidly in a line parallel to the bottom.

Thus the stone may be said to receive, the moment it attempts to move toward the bottom, an infinite number of kicks from the particles of water which it must check in their flow in order to reach the bottom. It is the game of football repeated; the ball is kept flying, but it takes power to do it.

We have intimated that the speed of solid matters heavier than water must of necessity flow less rapidly in a line parallel to the bottom of the channel than the water which floats them. Many have witnessed the butterfly trick performed by the Japanese jugglers in their exhibitions in this country. It illustrates this truth exactly. Pieces of colored tissue paper are folded to represent butterflies, which, by means of currents of air adroitly produced by fans, are made to float or alight and appear to sustain themselves at the will of the performer. It is a very ingenious and amusing feat, but the same principle is involved in it as in the "plumbeous porridge" of Engineering. The heavier bodies are only sustained by the momentum of the more rapidly flowing light fluid.

Again what is the "tendency to continue its onward motion" which Engineering says is sufficient to overcome gravity but an impulse received from the water. But admitting for the sake of argument that it has such a tendency in and of itself (its inertia perhaps is meant), the direction of such a force would be in a line parallel to the bottom. On what new principle of physics is it asserted that a force acting at nearly a right angle to the force of gravity will counteract gravity? A proposition at once so entirely void of any foundation in the laws of force and motion, and so feebly sustained by argument will surprise the readers and admirers of our esteemed and usually accurate cotemporary. Does it not also tacitly admit its error when it says that "anything, however heavy, will swim in water if it only runs sufficiently fast. Is this not equivalent to saying the heavier the body the greater the velocity in the stream needed, not only to start it, but to keep it up after it starts? And what ground is there for asserting that such a body would sink "at once" should its velocity ever become less than that of the water? Let Engineering tie a cast-iron plate to a string and then throw it upon a very rapidly flowing stream, holding on tight to the string, and report the result. The experiment will be nothing more than flying a water kite.

ORNAMENTAL PAINTING OF BUILDINGS.

Why it is that the American people run so much to the somber colors in the painting of houses and outbuildings, is an æsthetical question we leave for others to discuss. The general lack of taste generally displayed in the selection of tints is, however, only too palpable. One has only to take a ramble through one of our cities to demonstrate this fact. Rows upon rows of dull and dismal looking dwellings may be met with, painted dark-brown or a dirty-looking drab, with blinds of a color suggestive of nothing but mud.

The combinations of color frequently met with are positively hideous. There is a drab colored house which we are obliged to pass frequently, with sky-blue window casings and blinds, and a sort of balcony in front with an utterly unheard of color, one might suppose to have been compounded of all the pigments scraped from the bottoms of the pots in some painter's establishment for a year, ground together into a drab, dingy hue altogether indescribable. This house is enough to throw a man of good taste into spasms of disgust. Nor is it a solitary instance except in the depth of depravity to which the taste of its would-be decorator has sunk.

Summer relieves the eye somewhat when its soft green covers the earth, but when winter comes these abortions of color stand out in revolting deformity. Here is a frame house which the painter has attempted to make look like a brown-stone, and in doing so has made it look like a prison house of woe. There is what would have been a pretty little cottage if it had not been spoiled by Spanish brown. Back of it stands a carriage house of a leaden blue color. Yonder is a large mansion of brown stone, stately in its proportions and with a well designed front, the effect of which is spoiled by interior blinds with white frames and yellow slats.

In rural districts these defects are carried still further, so far as outside work is concerned, while the inside work is for the most part left bare and plain. Where any attempt at decoration is made, however, neutral tints without meaning are generally employed.

Nothing like attention to a general tone, and no reference whatever to the colors of carpets or furniture, is to be discerned in ninety-nine cases out of a hundred. All is a mass of incongruity from beginning to end.

The grossness of the fault being admitted, to what is it chargeable? In part to the bad taste of people at large, but most to the imperfect knowledge of painters, who, as a class, are sadly deficient in the knowledge of harmony in color, and whose instruction is mainly confined to grinding colors and manipulation of the brush.

If house painters could only be made to realize the value of the study of color, and to understand that the really great in the art are so chiefly because of their superior knowledge in this respect, improvement might be expected. There is no longer any excuse for ignorance. The researches and works of Chevreul, and others, have provided the necessary means whereby any intelligent painter may obtain the proper instruction.

Much doubtless depends upon natural talent in this as in other arts; but still we feel justified in asserting that in this country, at least, the house painters are far more deficient in the knowledge necessary to a high degree of skill than mechanics in other occupations. We do not suppose all house painters will become artists even with the knowledge which all ought to possess, but it is certain that no one will ever perform superior work without it.

LABOR-SAVING MACHINERY AND CO-OPERATIVE LABOR.

The value of labor-saving machinery is a subject which we have often discussed in these columns, and we should not now return to it were it not that we sometimes meet the assertion, that the extended use of labor-saving machinery has created a disability on the part of labor to compete with capital. We cannot suppose any one in this enlightened age will claim that anything calculated to constantly put power into the hands of one class, at the expense of another, not to say a very much larger class, could ultimately lead to anything but tyranny on the one hand, and abject servitude on the other.

The condition of labor, at the present time, is, we maintain, better, on the whole, than at any previous time in the history of the world. Slavery and serfdom are nearly extinct throughout the civilized world, and if wages be estimated, not in dollars, but in comforts of life received as the reward of industry, they are higher now than at any previous period. Of course, we do not, in this statement, take into account any temporary difference which might be found upon comparing the prices of to-day with ruling prices existing a few years since. What we wish to make plain is, that if a mean be struck, from the commencement of the Christian era to the present time, it will be found that labor has made much greater progress than capital. It will further be found, that the most progress has been made since the introduction of labor-saving machinery, and we assert, that such machinery has been a propelling power, not a resistance to be overcome in this progress.

The peculiarity of the effect of labor-saving machinery, of greatest importance in a social point of view, as affecting the status of classes, is the local concentration of labor, at the same time that it subdivides it into departments. Few manufactures now exist in which more than a part of the article produced is made by a single operative. In the majority of cases, the thing made passes through many hands before its completion. In order that the one article thus manufactured by the help of many workers can be made economically, it is necessary that the workmen should be brought together. This coming together is an element of social power which labor did not possess before the introduction of labor-saving machinery.

The result is association to protect mutual interests, and capital has latterly found it a very difficult matter to usurp undue authority since these associations have fully developed their power. It has enough to do to hold its own.

Labor-saving machinery is the only thing that renders co-operation possible in the mechanic arts. This kind of organization is yet destined to play an important part in the history of civilization.

If these facts are true, and we think them indisputable, labor has not suffered disability, but, on the contrary, has derived increased power to compete with capital from the use of labor-saving machinery, and those who think otherwise base their opinions, we think, upon a too narrow view of the subject.

ELECTRO-PLATING AND GILDING.

Every year adds to the general demand for electro-plated goods, and the experience necessary to produce them in the most perfect manner. The manufacture is based upon what has received the scientific name of electrolysis, that is, the decomposition of compound substances by means of the electric current. The current may be generated, either mechanically, with the ordinary friction machines, or chemically, as in the various galvanic batteries in use. The substance thus capable of being decomposed is called an electrolyte. Every electrolyte contains two or more elements which may be divided into two groups: those which are attracted to the positive pole of the battery, and those which go to the negative pole. These two groups are called ions, and those which move to the positive pole are called anions, while those which move to the negative pole are called cations.

To illustrate this, suppose the substance to be decomposed is sulphate of copper, in solution, and an electric current to be passed through it. Sulphate of copper is composed of copper and sulphuric acid, the latter of which is composed of sulphur and oxygen. Copper is a cation, hence it will move to the negative pole of the battery. Both sulphur and oxygen

are anions, hence, the acid which the union of these substances forms will move to the positive pole without decomposition, as would be the case were either sulphur or oxygen a cation. The terms *ion*, *anion*, and *cation*, were first suggested by Faraday. The first is derived from a Greek word, to go, and anion signifies, literally, that which goes upward, while cation signifies that which goes down. These terms are applied to indicate the opposite directions in which substances move when their union is broken up by electrolysis, a word which, literally, signifies to loosen by electricity.

The laws which govern electrolysis are very simple. Bodies, with few exceptions, are only decomposed while in the liquid state, brought about, either by fusion or solution. No elementary substance can, from the nature of the case, be an electrolyte. The direction of the electrolysis depends upon the arrangement of the battery and the amount of it is directly proportional to the quantity of electricity passed through the electrolyte. Those bodies, only, are electrolytes which are composed of a conductor and a non-conductor of electricity. The conductors of electricity accumulate on the negative pole of the battery, and are the cations. The non-conductors accumulate on the positive pole and are the anions. These comprise all the general laws of electrolysis, so far as known.

The positive pole of a battery is now generally called the zincode, and the negative pole the platinode, because when zinc and platinum constitute the metallic plates of a battery, the zinc is positive and the platinum is negative.

Electro-plating consists in the electrolysis of a metallic salt, the object to be plated being connected with the platinode of the battery, as the metals, being electro-positive elements, or cations, will move to that pole, and accumulate upon it.

The objects to be plated must be chemically clean; that is, they must be entirely free from dust, grease, oxide, or tarnish from any cause. Oxides and sulphides are conveniently removed by polishing with rouge, and grease may be removed by washing with an alkaline solution. The surface thus prepared, the article, having a small slip of metal slightly soldered to the back, if necessary for convenience in attaching the wire, is suspended on a hook so that it is immersed in the electrolyte, or solution of a metallic salt, and the negative pole of the battery being connected by a conducting wire with the article to be plated, while a wire from the positive pole is connected with the electrolyte, the decomposition of the salt, and the deposition of the metallic element contained in it at once commence.

There are, however, many circumstances which may defeat success in electro-plating, and no amount of reading can compensate for practical experience in its execution. The metallic film may be imperfect, owing to the presence of impurities upon the surface of the article to be plated. This can be ascertained by examination, and remedied by the proper cleaning. Sometimes the rapid evolution of gas raises little blisters upon the surface, and at others, the deposit, instead of being smooth and granular, will be rough and crystalline. A great variety of means are employed by experts in the art to remedy these evils, such as wider separation of the poles, increasing the thickness of the conducting wire connected with the positive pole, warming the electrolyte, increasing or diminishing the number of elements in the battery employed, etc., etc. Experience, in these cases, is the best guide, in fact, it is the only one which can, with certainty, be relied upon.

The article, having received a sufficient coating, is washed, dried, and burnished, with the exception of such parts as are desired to remain as deposited, and this completes the operation.

IS THE WEATHER AFFECTED BY SOLAR ECLIPSES?

There is a popular belief that a season in which a solar eclipse occurs is either colder, or that the weather exhibits vagaries not observable in ordinary seasons. The present season has been in the vicinity of New York extremely cool, and more than an ordinary rainfall has taken place. This has not been universally the case, and must therefore be considered merely a local peculiarity of climate.

We have found that popular opinion very often has some basis in fact, although the cause may not be the one generally supposed to account for a given phenomenon. A good example of this is the discovery by Dr. Richardson, in his experiments with the great induction coil, at the London Polytechnic Institution, that arborescent marks may be produced on the bodies of persons struck by lightning, a fact which has been discredited by scientists. The popular opinion in regard to these marks has been that they were the images of trees photographed upon the skin by electrical agency.

Now, although the experiments of Dr. Richardson confirm the production of the marks, they show, that, instead of being images of trees or plants, they are the superficial tracings of blood vessels, which the electric current has followed on account of their greater conductivity.

So in the case of peculiar weather occurring at or near the period of a solar eclipse, we deem it probable that an examination may show the popular opinion to be correct, although the cause may have no immediate connection with the eclipse itself.

There remains, of course, the possibility that climatic peculiarities, thought to be more frequent at such periods, are merely coincident, but there is, undoubtedly, a growing disposition on the part of meteorologists to refer certain atmospheric phenomena to celestial and cosmical influences as their cause.

The subject is one of great interest and we should like to hear its pros and cons discussed. Any of our correspondents who will give us facts bearing upon the subject will be welcomed to our columns. Theory will be out of place until the regular occurrence of peculiar atmospheric conditions in connection with solar eclipses is fully established.

THE DIAMONDS OF BRAZIL.

The diamond-washing establishments in Brazil have recently been visited by the distinguished traveler J. J. von Tschudi. On his way thither he was invited to stay in the neighboring town, Serro, where considerable commerce is going on in this gem. Tschudi was not little surprised when he witnessed how unsuspectingly the dealers intrust their goods. At the request of a friend he was immediately furnished with over 570 carats, or about one quarter of a pound of diamonds, making a value of 21,400 rix dollars.

One of the most remunerative washing establishments (Lavra) of Brazil is, according to Tschudi, that of San Joao de Barro. It is, however, not rich in stones of the first water, or those free from slightest faults, while diamonds of the second and third water are met with quite abundantly. Diamonds of the second water are called such, which exhibit spots, clouds, or flaws; but those having an undecided color, or that are injured by other material faults, are designated as being of the third water.

The washing operation requires considerable skill. For an inexperienced eye it is exceedingly difficult to detect a small diamond among a mass of glittering quartz, talc, or micaceous schist. Tschudi, in spite of carefully searching, and although the gem lay on the top of the sand, was unable to find it. To the keen and well-practiced eye of the negro, however, not a diamond of the size of a pin's head remains unnoticed.

The quantity of gems collected per day amounts to from thirty-five to seventy carats, which is equal to about one hundred and fifty diamonds. The gems collected, from the beginning of the season up to the time of Tschudi's stay, weighed 2,700 carats, and consisted for the greater part of beautiful stones, some of which exhibited a greenish tint, which disappears in grinding.

During the time when the washing establishments were under royal administration, every negro who found a diamond of seventeen and a half carats, received his entire freedom, and presents were awarded to those who found smaller ones. As to the etymology of the term carat, it is derived from the word *kuara*, the coral tree, the red pods of which, when dry, were formerly used for weighing gold dust. Four grains are equal to one carat, 151½ carats being equal to one ounce troy weight.

Dr. Lewis Feuchtwanger, in his treatise on gems, gives the following prices for diamonds in gold currency, viz.;

2 grains (half a carat), from.....	\$ 68 to \$75
3 " " " " " " " " " " " " " "	80 to 90
1 carat.....	110 to 140
1½ carat (6 grains).....	200
2 " (8 " ").....	400
3 " (12 " ").....	1,200 to 1,400
4 " (16 " ").....	1,600 to 2,000
6 " (20 " ").....	3,000 to 4,000

Diamonds differ considerably in their color. Forty per cent are in general colorless, thirty per cent may exhibit a slight tint, and as many may show a decided color. Aside from the limpid or colorless stones, those of a dull whitish or greenish tint are most common. In polishing them some of the colors disappear, when the diamonds will distinguish themselves by their pure water. Light shaded rough stones are therefore not always less valuable than limpid ones. Light-tinged diamonds are more common than deep-colored ones, blue and green are very rare, and bring exorbitant prices.

Tschudi enumerates the following colors which diamonds exhibit: Citron and wine-yellow, brass, ochre, and brown-yellow, but not sulphur-yellow; light-brown, pink, and red-brown; rose, peach blossom, and cherry-red; green in all shades, as pale sea-green, leek color, pistachio olive, thistle-finch color, emerald and bluish green, greenish gray; light gray, ash gray, smoky gray, pure black and dirty black.

Most colored stones are found in Rio da Bagagne, they also occur frequently in Sincora in the province of Bahia. The most refractory to the cut is the black diamond, such as used for the carbon tool points, which were described in our issue of July 24. It mostly occurs in the latter province, sometimes in pieces of from one to two pounds.

One of the most extraordinary curiosities in the way of diamonds is a crystal inclosing a gold leaf. Dr. Nello Franca, who makes mention of this stone, asserts that the gold is seen as if not imbedded in the diamond at all. This peculiar specimen speaks against the hypothesis of those who consider this gem as having directly originated from carbon or carbonic acid.

PATENTS OR NO PATENTS--THE OPPONENTS OF PATENTS USED UP.

Our readers have been made aware that a movement has been for some time on foot in England to repeal the patent laws of that country. As might have been expected a lively discussion has taken place, and Mr. Macfie and Sir Roundell Palmer, the principal champions in Parliament of abolition, have received some rough handling, both in parliamentary debate and from the press. We learn from the *Scientific Review* that a conference of workingmen was held on Saturday, the 24th of July, at Shaftesbury Hall, Aldersgate street, London, under the auspices of Sir Roundell Palmer, M.P., Mr. Macfie, M.P., and a few other opponents of patent property, to consider the desirability of abolishing the patent laws.

Mr. R. Marsden Latham, of the Inventors' Institute, together with a deputation from the Delegates Invention-right Committee, a body composed of delegates from the Workingmen's Technical Education Committee, the Workmen's International Exhibition Committee; the Foremen Engineers' Association; the Workingmen's Club and Institute Union;

the Public Museums and Free Libraries Association, and other workmen's organizations, attended to watch proceedings, and if necessary to take part in the debate.

Sir Roundell Palmer, M.P., presided, and in the course of a long address, which though attentively listened to, provoked occasional expressions of dissent, said that the opinion he had formerly held in regard to the patent laws had materially changed, and he had now come to the conclusion that they did more harm than good, and therefore it would be better for the people if they were abolished. (Loud cries of "No"). Some men might neglect their business in the hope that a windfall might fall to them in the shape of some invention, but it was doubtful if one man in twenty drew a prize in the inventors' lottery. In many cases the most useful inventions got into the possession of employers and of capitalists. The legitimate reward of poor inventors would, probably, in the event of the abolition of the patent laws, fall to them much in the same way as it did now. There was no analogy between the copyright in a book and the right to a mechanical invention. No two men could ever write the same two books, therefore no author could ever stand in the way of another. Ninety-nine patents when useful stood in the way of the people. (Cries of "No" and "Impossible.") They were monopolies—(cries of "No," and a voice: "Not more so than other descriptions of property")—and a patent was a monopoly given to one man for fourteen years, who had discovered something before any one else, but everyone was in search of the same thing. A stop was put to their exertions, as they could not proceed without paying a royalty to the man who had patented it. He considered that a person who had found out a new invention which might benefit mankind, had no right to block up the way for fourteen years by a monopoly which was called a patent. ("Oh!") Patents stood in the way of the improvement of the people in a far greater measure than they benefited the inventor. (Expressions of dissent).

Mr. J. W. Richardson remarked that the patent laws drove many men out of the country to America, where inventions were appreciated. (A voice: "America has better patent laws, and grants three times as many patents as are granted here." Cheers). He suggested that Greenwich Hospital should be converted into a museum of patents. Greenwich was near to London, and was a better site than South Kensington. He had received a very courteous letter from Mr. Gladstone in reply to an application for converting the hospital into a national patent museum, in which the right Hon. gentleman stated that the subject should have his best consideration. There was a national patent museum in America, which had been productive of great good, and he thought that if a national mechanical and designers' co-operative institution, to assist inventors, could be established in England, it would be productive of much benefit to the community.

Mr. J. R. Taylor, of Gray's Inn, speaking of the cost of obtaining and defending patents, concluded that it was almost an evil for a man to be an inventor and obtain a patent. (A voice: "Then cheapen patents and simplify the law.") He considered that patents for new inventions limited the national wealth. ("Oh!")

Mr. Clarke denounced the monopoly enjoyed by the Post-office and desired by the Government in the case of the telegraphs. This, he thought was a still greater evil than the so-called monopoly which the patent laws conferred.

Mr. Thomas Paterson said that what was wanted by the workingmen inventors of this country was a real security for their inventions—(hear, hear)—and he thought that they were as much entitled to a property in the results of their brain labor and expenditure of time and money in perfecting and elaborating new inventions as authors were to copyright in their books. (Loud cheers). He for one could not accept the finely-drawn sophisticated distinction between copyright and invention-right which Sir R. Palmer, with so much pains and ability, had endeavored to develop in his opening address—(loud cheers)—and he was satisfied that the good sense of the workingmen of England would prevail, and could not be imposed on by such hair-splitting arguments as had been addressed to them by the worthy chairman. (Hear, hear).

He contended that the patent law system was the best practical means of remunerating inventors yet devised—(cheers)—that without encouragement and remuneration inventors would never incur the cost and labor of devising new inventions—(cheers)—that the public introduction of new inventions could only be accomplished in a large majority of cases at great expense—(hear, hear)—and that manufacturers and capitalists would not embark money in publicly introducing new inventions, unless some inducement, such as the patent laws afforded, were accorded to them. (Loud cheers). To abolish all protection to invention would be to hand over all the profits of new inventions to the great capitalists, who would come in and undersell the inventor, which they could then easily do. Patents should be granted free from charge, and a tax might be imposed upon the profits of the patented article. He was one of the honorary secretaries of the Workmen's International Exhibition Committee, and they found that it was almost impossible to get skilled artisans to send new inventions for exhibition, unless some special security was guaranteed to them that their inventions would be freed from piracy. (Hear, hear). He had attended meetings of workingmen at the great centers of commerce, and in all parts of the country, and a general feeling prevailed among them, that the patent laws should not be abolished, but simplified and brought within the reach of all. (Loud cheers). To abolish the patent laws would be to plant the seeds of England's decline—(hear, hear)—and he could assure those of our legislators, who, seeking to obtain popularity, might truckle in favor of such a measure, that, among the working