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NEW YORK, SATURDAY, JUNE 23, 1877.

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BLUE GLASS BLINDNESS.

readers against an apparent danger inherent in blue glass, perpetrates the following:

"That blue glass has any curative properties remains yet to be proved; but that glass of that color will concentrate the rays of the sun, in a lesser degree, as the common burning glass does, was known before General Pleasonton's book was printed and made so much of by the newspapers. A gentleman of Brooklyn suffering from weakness of sight Λ was recently led by the advice of well meaning friends to use spectacles of blue glass, such as certain opticians are selling just now. The result was that his eyes, already too sching just how. The result was that his cycs, already tex-posed to a terrible glare and heat, which in less than a week entirely destroyed the eyesight of the sufferer. He is now totally blind. This is a fact, and the gentleman would doubt-less be glad to have other sufferers from weak eyes know of bit or even of the gentleman would doubtof his case and draw a moral therefrom. Another similar instance has come under our observation, a young lady being in this case the dupe of the blue glass enthusiasts. It is in this case the dupe of the blue glass enthusinsts. It is worth bearing in mind that the only property of blue glass that has been proved is its power to concentrate the rays of the sun and produce extraordinary heat.

Neither glass stained blue nor glass of any other color " concentiates the rays of the sun as the common burning glass does." A lens, from the curvature of its surface or surfaces, has the property of causing the luminous rays which traverse it either to converge or to diverge. By a burning glass or double convex lens, parallel rays are conveyed to a focus. If blue glass is made in similar form, it will act similarly; otherwise it will not.

But, as we have repeatedly pointed out, blue glass cuts off a very large proportion of the luminous rays, and the light it transmits is nothing but modified sunlight, or rather sunlight shaded and reduced in intensity: so that, so far from blue glass producing a terrible "glare," it transmits an exceedingly mild light. This property was utilized by photographers long ago in order to relieve the eyes of their sitters; while blue spectacles have been worn by weak-eyed people almost ever since spectacles were contrived.

It is not necessary to discuss the question of whether blue glass becomes hotter through absorption than clear glass, in the absence of any authentic experiments on the subject. It is well settled that, as color teaches us nothing regarding the radiation and absorption of non-luminous licat, any conclusions as to its influence may well be wholly delusive. The absorption depends on the particular absorptive power of the coloring substance, and not on its hue. Clear glass is opaque to a considerable degree to heat rays, and therefore through absorbing them becomes warmed. The only question, then, is whether the coloring matter introduced is capable of producing increased absorption sufficient to render the glass hot, and so to cause it to injure the delicate outer portion of the eye through its proximity thereto. In the absence of any data determining this point, no positive opinion can be formed; but it seems probable that the resulting inflammation of the organ would produce suffering sufficiently intense to indicate its cause to the wearer of the glasses and induce him to discard them before the week had elapsed during which the lesion became permanently extended to the optic nerve. It should be understood, however, that, if blue glass spectacles are injurious, it is because of the constitution of the glass, and it does not necessarily follow in consequence of that glass being blue.

DRUNK OR DISEASED ?

The sciences of law and medicine are now in direct eonflict on the question of the responsibility of the inebriate. The law holds a drunken person answerable for his acts, and

skip a generation, and appear in a succeeding one with all It is curious to notice in what strange ways a popular its former activity: that the habit seldom culminates until mania affects different people. The believers in the blue the subject is thirty years of age, and that the disease is oftenglass absurdity have hitherto had a monopoly of wild theo est found among people between the ages of thirty and ries on that subject, of which they have invented no lack, forty: that certain individuals possess an alcoholic idiosynto meet the various objections raised, but here is a blue glass | crasy, a natural latent desire for stimulants which leads, if skeptic gravely making assertions fully as baseless as the indulged, tomorbid appetite and a diseased condition of the errors which they are aimed to controvert. The skeptic in system, which the patient is powerless to relieve, because the question is none other than our staid contemporary the weakness of will that led to the disease obstructs its removal. Evening Post, of this city: which, in its anxiety to warn its These are all well demonstrated facts. Dr. Joseph Parrish says that he has known hereditary drunkenness developed after sixty years of sobriety. Dr. Forbes Winslow, before a British Parliamentary Committee, stated that he had observed a list of criminals in which a father was a drunkard, grandfather a drunkard, grandmother an idiot; and in the whole line the family showed drunkards, criminals, and idiots. All the forms of vice were hereditarily transmitted.

> The difficulty at once suggests itself of how to distinguish between the man who gets drunk because he cannot help it and then sins, and him who deliberately becomes intoxicated. If we place the drunkard on the same level as the lunatic in regard to irresponsibility for crime, we find ourselves brought face to face with a host of perplexing questions. Λ man cannot sham lunacy without being reasonably sure of detection; but he can get genuinely drunk, and still have faculties clear enough to execute a purpose of revenge, for example. Neither law nor medicine can positively say how drunk a man must be to be irresponsible. Neither can we unearth every one's genealogy to find out whether his grandfather was an incbriate in order to predicate the hereditary hypothesis. It is evident, therefore, that the drunkard-no matter how he became a victim-must be placed in a different category from the lunatic and the criminal who commits crime automatically. A lunatic is never responsible, society must regard a criminal as always so; but the responsibility of the inebriate depends on a host of circumstances, which may differ in countless instances. It is obviously as much an error to regard every drunkard as an automaton impelled by irresistible impulse as it is to consider him-as we now practically do-a fully reflecting being. The problem is to find the just mean which will cover all cases, or to discover a mode of prevention which will simplify the general conditions.

> The preventive remedies which have suggested themselves are two: First, the inebriate asylum; second, the repression of the liquor traffic. The inebriate asylum, though really a curative institution, is in the end the means of preventing the spread of inebriation by hereditary transmission. Intemperance is curable, just as insanity is, in most cases; and, to a certain extent, similar means are used to effect the desired result. The treatment, however, involves skill and thorough acquaintance with the disease in all its forms; and it is therefore of a nature which is best practised in special institutions. The increase in number of the latter may therefore be considered advantageous. As regards the checking of the liquor traffic, there is ground for much argument pro and con. A step in advance which might be taken, and its results tested before resorting to prohibition, is the stringent enforcement of enactments against adulterated liquors. Whiskey-or rather a vile decoetion of fusel oil-is sold in the slums of this city, at retail, at prices less than the government tariff alone amounts to. Repression of adulteration would break up the sale, and place liquor out of the pecuniary reach of thousands of people who are now easily able to gratify their desires. Pure liquors, say authorities, are worse as a source of inebriation than the adulterated ones, owing to the greater proportion of alcohol present. This is doubtless true; but at the present time the immense preponderance of liquor sold is adulterated. Enforce the laws to prevent the sale of that, and maintain a high tariff on pure liquors, and it will become an expensive proceeding to get irresponsibly drunk.

.... ABOUT GRAVESTONES.

We have just received a volume containing seventy-four refuses to accept intoxication as a plea in extenuation. On lithographed designs for gravestones, accompanied by a note the other hand, one of the highest medical authorities, who from the publishers to the effect that the book is regarded has made drunkenness the subject of prolonged and careful "as the best modern work on the subject." It is a small study, Dr. D. G. Dodge, late Superintendent of the New volume, and the price is eight dollars, for which sum one York State Inebriate Asylum in Binghamton, says that "in- might reasonably expect to obtain something new and valuebriety is a condition of the system exhibiting a class of able. The work is no doubt modern, but we fail to discover

tions, 3 figures.-New Water Heater for Steam Emilias. Improvement in Iron and Steel Manufacture. By T. A. FREEMAN.
II. TECHNOLOGY.-Fifty Practical Recipes Elsner's Green, Bremen Blue, Wild Yellow Lake-Treating Lubricating Oils.-A new Solvent for Sike.-Portraits in Watch Glasses.-Iron and Steel Manufacture.-Ma-ichine for Drying Crystals. 1 engraving.
Pipes for Gas and other purposes. Main-Laying. 3 engravings.-Ibventions and Improvements announce: Abroad, including the following items: Joading Sik: Cleaning Yarab by Friction; Shuttle Improvements: Dyeing Long Piles: Jacquard Improvements: Novel Method of Ornamenting Fueve and Plashes; Extraction of Soap; Quill Brushes for Cambing Energy. Billiant Cotton and Henry; Sorting May: Cleaning Energy, State Strap, Guiller, State Strap, Grane Strap, Grane Strap, Cotton, Strap, Cotto

- una cosment fotions
 III. CHEMISTRY AND METALLURGY.-New Oxygen Refort, by WM. J. CHADWICK; 2 figures.-Preparation of Pure Bismuth.-Explosion of Nitro-bydrochloric Acid.-Synthesis of Urea.-Estimation of Boracic Acid.-Formation of Sattputer by Organic Ferments.-Density of Alum Solutions.-New Method of Manufacturing Sulphides. Carbonates, and Alkaline Sulpho-carbonates.-The Ferments contained in Plants, by C. KosMANN.-Action of Hydrosulphite of Soda on the Hematosin of the Blood.-New Ureometer for Clinical Use.-Neptunium, a New Metal. -Selenium in Refined Silver.-Proceedings of the German Chemical Society, Berlin. With notices of a large number of new researches by prominent members. Society, Berlin. Wi
- . ELECTRICITY, IJGHT, HEAT, SOUND, ETC.-Electricity in the Production of Galvanic Deposits and of Chemical Decomposition.-New Investigations in the Compound Electropisting Bath, by M. THE-NARD -Ball Lightning. Improvement in Dynamo-Lagtric Machines, by DIEUDONNE F. J. LONTIN; 3 engravings.-The Cause of Light in Flames,-Tonometry, or the Measurements of Sound, by A. J. ELLIS. An interesting and instructive paper.-Underground Telegraph Lines in Paris. IV.
- V. ASTRONOMY.-Structure and Origin of Meteorites; explaining the Interior Structure of Meteorites, the formation of Minerals and Rocks, Origin of Meteorites, Meteoric Iron, Testimony of the Microscope. An interesting paper. By H. C. SORBY, F. R. S.-The Asteroids, by Profes-sor C. A. YOUNG.

symptoms resulting from a long continued and excessive anything new or especially attractive in the designs. It use of alcoholic stimulants, which brings the subject to a con-seems to us-and the idea is one we have long held-that it dition he is too weak to overcome; and for which he is not is about time that a reform in our churchyard architecture responsible." Society, it would seem, stands in a dilemma was set afoot. We have got into a rut, so to speak, of defrom which it is difficult to perceive any present way of signs which have been the same from the period "whereof the memory of man runneth not to the contrary." The escape.

The question is one, however, which demands speedy settle- visitor to the country churchyard, or our magnificent Greenment, for laws are indeed anomalous under which fine-drawn wood, finds them at every turn; and he may depart with pleas of "emotional insanity" have secured immunity for the fixed impression that, when gravestone makers emanciwilful murder, while the wretch who deals a fatal blow pated themselves from slabs and tables, the sole decoration while crazed and diseased with drink is subjected to the of which was the occasional hourglass or impossible cherufull meed of punishment. Much has been written and said to bic head, they proceeded as far as the funereal urn and prove that, when a man becomes a drunkard, it is a volun- broken pillar and there stopped, a few bolder spirits only tary proceeding on his part. This is the legal view-or' advancing to the further point of crouching lambs and rather, the legal fiction-relative to the subject. There is no kneeling angels. Now, these ideas are well enough in their doubt that many do become confirmed inebriates through way, or rather they were so, say fifty years ago, when we finding pleasure in their early use of stimulants; but this is built our houses like Greeian temples and indulged in other by no means true of all. Dr. Dodge tells us that, like all architectural atrocities; but at the present time, we may hereditary diseases, intemperance is transmitted from parent truthfully assert that our graveyards possess a full supply to child as much as scrofula, gout, or consumption; that it of them, and that something new would be a gratifying observes all the laws of transmitted disease; that it may even change.

LIGHTNING RODS.

 Λ correspondent of the Country Gentleman writes to the

"Having read the recent article in your journal relaroofed with slate, valleys of copper and conductors of tin, a rod with points soldered to the tin roof, the latconnected by strips of copper soldered to the copper ter valleys, the tin conductors connected by strips or rods of copper from the bottom with permanent moisture undercopper from the bottom with permanent moisture under-ground—is the building protected against lightning ? (1) Would the building be better protected if the above conduct-ors were attached in the building to the gas pipes? (2) Does the paint on one side of the tin materially reduce its power of conduction ? (3) Is it not an accepted theory that the closer the rods are attached to a building the better ? (4) Do you approve of the method used for protection of the Comparial buildings are available in the Sorrowing Automatical in the Sorrowing and the sorrowing accepted theory is a sorrowing a sorrowing a sorrowing and the sorrowing a s Centennial buildings, as explained in the SCIENTIFIC AMERI-CAN of about a month since? (5). W. H. G.

To which the editor of the Country Gentleman replies:

1. We do not perceive why this would not make a good connection throughout, and afford ample protection. The different connections might be more liable to become detached in the lapse of years than a firm rod, and would need look-In case the points above should prove insufficient to ing to. carry off silently the fluid from a heavily charged cloud immediately above, and there should be an explosion (a rare occurrence in such a case), there would be more liability to injure the building than if the rod were a foot or two distant 4. It is better that the rod be a short distance off from the building, for the reason already explained. 5. We do not know the mode adopted on the Centennial buildings, and

REMARKS UPON THE ABOVE ANSWERS. -(1) We coincide substantially with the Country Gentleman in respect to the general sufficiency of the above example of protection. The proposed connections above ground are correct; but if there is any deficiency, it is in the underground connections. The terminal metal of the rod, placed underground, in contact with moist earth, should be as extensive in area as possible.

We think it erroneous to suppose that lightning rods are a clouds. The latter are generally more than half a mile diswhile a properly arranged rod, if struck, will conduct the electricity safely to ground, the sudden leap of the lightning through this air space to the rod sets the air into tremendous Only the atmospheric electricity, close to the surface of the earth, is conducted to the ground silently by rods, buildings, trees, etc.

The object of the rod being to conduct off electricity from easily reach it; the rod should not be separated a foot or two, as our contemporary suggests; the explosion he refers to is the crashing noise, which the rod can neither cause nor prevent.

(2) The protection of the building would be improved pipes. But the attachment of the foot of the rod to the gas pipes, outside of the building, would be more convenient minals in moist earth, before mentioned.

As to inside gas pipes, they are good conductors, and all (3) We agree with our contemporary.

(4) It is an accepted theory that the closer the rods are at-

(5) The mode adopted on the Centennial buildings was to

proved. The morning I left New York there were not perhaps thirty persons in the city who believed that the boat would ever move one mile an hour or be of the least utility. And while we were putting off from the wharf, which was crowded with spectators, I heard a number of sarcastic remarks; this is the way you know in which ignerant men compliment what they call philosophers and projectors.

Having employed much time and money and zeal in accomplishing this work, it gives me, as it will you, great pleasure to see it so fully answer my expectations. It will give a quick and cheap conveyance to merchandise on the Mississippi, Missouri, and other great rivers which are now laying open their treasures to the enterprise of our countrymen. And although the prospect of personal emolument has been some inducement to me, yet I feel infinitely more pleasure in reflecting with you on the immense advantage that my country will derive from the invention.

However, I will not admit that it is half so important as the Torpedo system of defence and attack; for out of this will grow the liberty of the seas; an object of infinite importance to the welfare of America and every civilized country. But thousands of witnesses have now seen the steamboat in rapid movement, and they believe-but they have not seen a ship of war destroyed by a torpedo, and they do not believe. We cannot expect people in general to have a knowledge of physics, or power of mind sufficient to combine ideas and reason from causes to effects. But in case we have war, and the enemy's ships come into our water, if the government will give mercasonable means of action, I will soon convince the world that we have surer and cheaper modes of defence than they are aware of.

> Yours, etc., ROBERT FULTON. ----

Transparent Gold.

In the course of a lecture on gold, delivered before the Franklin Institute, on February 27th last, Mr. A. E. Outerbridge, Jr., of the Assay Department of the Mint in Philadelphia, Pa., gave an account of some experiments he had made, with the view of ascertaining how thin a film of gold was necessary to produce a fine gold color.

The plan adopted was as follows: From a sheet of copper rolled down to a thickness of $\frac{5}{T^{0}00}$ of an inch he cut a strip 21 by 4 inches. This strip, containing 20 square inches of surface, after being carefully cleaned and burnished, was weighed on a delicate assay balance. Sufficient gold to produce a fine gold color was then deposited on it by means of the battery; the strip was then dried without rubbing, and re-weighed, and found to have gained one tenth of a grain, thus showing that one grain of gold can, by this method, be made to cover 200 square inches, as compared to 75 square inches by beating. By calculation, based on the weight of a cubic inch of pure gold, the thickness of the deposited film was ascertained to be $\frac{1}{980400}$ of an inch, as against $\frac{1}{367650}$ for the beaten film. An examination under the microscope showed the film to be continuous and not deposited in spots, the whole surface presenting the appearance of pure gold. Not being satisfied, however, with this proof, and desiring to examine the film by transmitted light, Mr. Outerbridge has since tried several methods for separating the film from the copper, and the following one has proved entirely successful:

The gold plating was removed from one side of the copper strip, and by immersing small pieces in weak nitric acid for several days, the copper was entirely dissolved, leaving the films of gold intact, floating on the surface of the liquid. Three were collected on strips of glass, to which they adhere on drying, and the image of one of them was projected on the screen by means of the gas microscope. It was observed that it was entirely continuous, of the characteristic bright green color, and very transparent, as was shown by placing a slide of diatoms behind the film. By changing the position of the instrument, and throwing the image of the film on the screen by means of reflected light, its true gold color was seen. Mr. Outerbridge has continued his experiments, and, by the same processes, has succeeded in producing continuous films, which he determined to be only the 1 two million seven hundred and ninety-eight thousandth $(\overline{275}, \overline{1}, \overline{010})$ of an inch in thickness, or ten thousand five hunfitting up a shop and requesting people to come in there and ground-which latter is the essential thing necessary to ren- nary sheet of printing paper, or sixty (60) times less than a single undulation of green light. The weight of gold covering 20 square inches is, in this case, thirty-five thousandths T_{0000}^{s}) of a grain: one grain being sufficient to cover nearly 4 square feet of copper. The film is perfectly transparent and continuous, even in thickness, and presents all the characteristics of the one shown before. That a portion of the image appears darker is due to superposed films, the intensity through which the light passes.

It is needless to state that we opened the book above referred to with these feelings. We need not picture our dismay when nineteen monuments with funereal urns and five editor of that paper as follows : with broken pillars met our gaze; and there was the inevitable lamb, and the invariable angel in the usual uncomforta-ble position which it makes our bones ache to contemplate. ing inquiries: Given a large building, say a church with There was not a design which seemed to us to offer any spire, the spire covered with tin and painted, the church There was not a design which seemed to us to offer any striking originality, save one, and that was a most incomprehensible combination of a ewer and basin perched on a slab. What connection existed in the designer's mind between those indispensable toilet utensils and the grave, we should much like to have explained. Some of the gravestones depicted are above average merit; but the stigma of conventionality is upon every one of them. The designers doubtless think they know the public demand, and aim to supply it in the best possible way; and the public taste and judgment perpetuates these trite conceptions, to the exclusion of the new and beautiful designs which an art knowledge, far more advanced than that which originally evolved the former, is capable of producing. We do not refer to lofty and magnificent monuments erected without regard to outlay, because such always are the work of the artist-sculptor and not of the gravestone maker, but to the humbler memorials which mark the thousands of graves in our cities of the dead. There is as abundant opportunity for the application of the principles of true taste and art feeling to these as to the more pretentious piles; and while we are making Nature from the building. 2. Gas pipes, well connected, would transform our great cemeteries into beautiful parks and make good conductors, with the same liability as that just the more pretentious piles; and while we are making Nature gardens, it would be well if we allowed art to produce forms mentioned. 3. Paint does not reduce the conducting power. which would harmonize, and not disagreeably contrast, with Nature's handliwork. Ancient mythology and the tombs and relics of the Old World abound in appropriate have not the paper referred to at hand. emblems which might find more place on the modern gravestones than they now do. What architect or artist will strike out in a new and original line of thought, and give us something better than the upright slab, pillar, or obelisk for marking the graves of the dead?

HELPING INVENTORS.

A co-operative movement, based on the English system first started at Rochdale, has been begun in Indiana and means of silently discharging the electricity of thunder other western States. The organization is on the masonic plan, there being a "Grand Guild" and subordinate tant above the earth when the discharge takes place ; and "Guilds," the latter of which have for their object apparently the promotion of co-operative enterprises of any legitimate character. Among other schemes, that of an inventors' union has been projected, whereby inventors are assisted in vibration, producing sounds like the roaring of artillery. preparing their devices, a workshop is provided, and other encouragement afforded.

We are of course heartily in favor of any plan which tends to develop invention; but the inventors' union scheme is a very bad one, and it has been many times unsuccessfully the building to earth, the rod should consequently be placed tried. There never was and never can be a community of in close contact with the building, so that the electricity may interest among inventors, except so far as all are interested, more than the average run of people, in general progress. The very nature of the inventor's work impels him to keep it out of public notice until it is complete t, and his right in it secured to him. There are abundant circumstances under if the conductors were attached, in the building, to the gas which it might be highly disadvantageous to an inventor's' interest for his neighbor to gain a knowledge of his invention; and there are not many inventors who would risk these connections to be additional to the large metallic termaking their models in a co-operative workshop, no matter to what pledges of secrecy other occupants of the room had been committed. Besides, this is not the kind of help our that is necessary is to bridge over the space between the inventors want. In many cases of invention, not only is street pipe and house pipe, occupied by the meter and its something originated but the implements for its production lead pipe, with copper wires. The lead pipe is a poor conmust also be contrived. It is impossible to foresee what ductor. By using the copper bridge, if the gas pipes in particular means inventors will use to put their ideas in the house are struck, the electricity will pass off into the earth. practical form; and it is useless to attempt to fit up a special shop for that purpose. The needs of inventors are, first, suggestions of devices required, and information of what others tached to the building the better. The reply of our contemare doing or have done in the way of origination or im- porary is incorrect, for the reason explained under (1). provement: in brief, ideas which will keep their minds in a channel which is likely to end in their conceiving some ob connect the metallic roofs with the earth, by means of nuject on which to exercise their genius. Afterwards, after merous rods soldered at different points to the roof, and carthe patent is secured, and the inventor has perfected his de- ried directly down into the ground, and there soldered to the vice, then he sometimes needs assistance to aid in its intro- extensive system of eight inch underground water pipes. duction. Now the "Guilds" can furnish either class of Thus the rods had the closest possible connection with the help we have indicated, and do good; but we do not believe roof : while the earth terminals of the rods were provided that they will ever carn much gratitude from inventors by with a very large area of conducting material placed underinvent. They would find that good reading rooms-such as der any rod a protection; but is the very thing that the we have frequently advocated, and which have been success- majority of people neglect in rodding their buildings. fully established in many places in accordance with our suggestions-will attract thinking people; and if an abundance of mechanical books and pape:s are provided, and discussion on new mechanical and industrial subjects encouraged, inventions will speedily follow. As regards assisting inven. end of Long Island, October 12, 1807, is a letter from Robert tors in introducing their devices, there is no lack of oppor- Fulton to Joel Barlow, giving an account of the first trip of of the green color being proportioned to the thickness tunity; but the guild's part in securing the aid could hardly the first steamboat on the Hudson River. It is as follows: extend beyond bringing investors and inventors into com- To JOEL BARLOW, PHILADELPHIA. munication. It is useless to attempt to organize an association which undertakes to push any or all the inventions of that her baby is not handsome.

ing ideas, and to leave the inventors to work out the pro- had been at anchor. jects based thereon after their own fashion.

Fulton's Account of the First Steamboat Trip between New York and Albany.

In the Suffolk Gazette, printed at Sag Harbor, on the east

NEW YORK, 22d Aug., 1807.

My DEAR FRIEND: My steamboat voyage to Albany and The experience of the late Mr. John Daly, of this city, its members. Discrimination will be found necessary; and back has turned out rather more favorable than I had calcu- who got riches but lost his reason and committed suicide, as a rule, it is about as easy to convince an inventor that his lated. The distance from New York to Albany is 150 miles; points a moral for our time. The case of Dr. Ayer, the device is not of superior merit as it is to convince a mother | I ran it up in 32 hours and down in 30 hours. The latter is well known millionaire, who is in an asylum for the insane, just 5 miles an hour. I had a light breeze against me the furnishes a commentary on the failure which some men are We are glad to hear of the existence of the guilds, and whole way going and coming, so that no use was made of my making by their appetite for money. There are scores of can commend their motive in endeavoring to help inventors. sails; and the voyage has been performed wholly by the similar cases of insanity caused by a too intense application But we think that, after a little experience, they will agree power of the steam engine. I overtook many sloops and to business. Brains are of more account than bank notes, with us that it is better for them to furnish means for obtain schooners bearing to windward, and passed them as if they even in this world, truthfully says the Christian at Work and it is never wise to risk one's head to accumulate a prop-

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The power of propelling boats by steam is now fully, erty for other people to quarrel over.

Riches and Reason.
