NEW YORK, MAY 19, 1849.

The New Commissioner of Patents.

Mr. Thomas Ewbanks of this city, has been appointed Commissioner of Patents in place of the Hon. Edmund Burke, removed. This appointment will give general satisfaction to all our inventors. Mr. Ewbanks is an inventor, a practical mechanic, a man of great scientific attainments, and author of that pre-eminent work, " Ewbanks Hydraulics." This work together with many other scientific papers has given him a good and great reputation both at home and abroad. He is a man of unsullied character, modest and generous, but firm and just also. No better appointment could be made. Mr. Burke was a good Commissioner of Patents, and we suppose that he was removed because he was a keen partisan. Mr. Ewbanks is not a hot partisan, but a good quiet citizen, and this qualification is a good recommendation to inventors. What do they care about parties? Our inventors want a man who will compile statistics on the improvements in the Arts, not party statistics. Agricultural statistics, and statistics on public policy, are excellent, but they should be compiled by boards for that purpose. The Patent Office is supported and sustained by the money paid in by inventors to the Treasury, and surely no other class has a right to the labors of those officers, who are paid and supported by the funds paid in by inventors. We contend, and always have contended, for the rights of inventors, but their rights have been overlooked always for the benefit of others. The Patent Department was instituted for the purpose of encouraging improvements in the " Useful Arts." Now, although this is an undeniable fact, we well know, and have spoken of it frequently, that the improvers, the inventors, have received far less attention than some others who never paid a single dime for the advancement of the Arts. Huge documents on agriculture have been issued year after year from the Patent Office, while the epitome of improvements in the Arts has presented a miserable appearance in comparison with their buttermilk neighbors, for whom the inventors did all the churning, and made the churn too. We hope after this that all the Patent Office Reports will embrace matters only relevent to patents and improvements in the arts, with legal information in connexion, and that a copy of every Report for the year be sent to each man who secured a patent during the year.

In penning these lines we write above partisan feelings—for we are on the side of justice with the good will, we know, of inventors, who are of every party in politics, and who care for justice alone in this department above Whig or Democratic feelings. Mr. Ewbanks we know will give his influence and the best wishes of his heart to secure full justice to inventors and to extend a more universal and better knowledge of American Science and Art.

Mr. Burke, as Commissioner of Patents, earned the fame of being a prompt and able officer. Whatever faults one party may have with another, is no business of ours. We speak of him as a high officer of the U. S. Government, who performed his duties with honor to himself and his country, and it is a source of pleasure to know that his mantle has fallen upon worthy shoulders.

Steam Boiler Explosions.

We are indebted to the Hon. E. Burke, Ex Commissioner of Patents, for his valuable Report on the subject of Steam Boiler Explosions. By it we learn that it is the opinion of Mr. Cist, that much of the boiler iron of the West is made from inferior ore, deficient in fibre and tenacity, and this is held to be one cause of explosions. Excessive pressure is laid down as another cause, unduly heated metal another, and carelessness or ignorance, of engineers another. Thus four causes are laid down as sources of boiler explosions.—The employment of cast iron in any part of the boiler is justly condemned. No less than 15 cases of explosion are reported to have been caused by the boilers being made of defective materials

The grand desideratum is, " the best way to prevent steam boilers from exploding."—Every person knows, that they will not explode if there is plenty of water in the boiler, and not too great a pressure on the safety valve. To keep up a good supply of water then is the main point, and this embraces the necessity of having an apparatus to give a sensible waaning when the water falls below the safety line. These apparatus are ranged into four classes.

1st. The " common safety guage" of low pressure boilers and the manometer for high pressure boilers, likewise the glass water guage and some others that depend on small valves opening to sound an alarm, such as a float, to operate a whistle when the water falls below a certain point, also the common guage cocks.

2d. Fusible plugs, the safety guard of Mr. Evans, and the expansion guard of Mr. Wright.

3d. The safety apparatus of Mr. Raule, the hydrostatic valve of Mr. Duff, and the interior safety valve of Mr. Easton.

4th. The ordinary force pump, the auxillary pumping engine (the Doctor) and the self acting pumping engine of Mr. Barnum, as described in No. 3, vol. 2 Scientific American.

The disc safety valve is preferred to the conical safety valve. A boiler may be burst by a force below its ordinary working pressure if the tenacity of the metal has been diminished by heat, in such a case the ordinary safety valve is of no use. The fusible alloy plugs are stated not to be reliable, as they give no evidence of the determination of the boiler by age and use, as they are subject both to the pressure and the temperature. Mr. Evans' safety valve, is stated to remove this difficulty, by inserting a tube through the top of the boiler with its bottom resting on one of the flues, and having a small quantity of fusible alloy placed in the bottom of this tube connected to a spindle which is allowed to move round only when the alloy is in a molten state, which by being connected with a cord to a weight, drops it on a support and throws open the safety valve. This apparatus is highly extolled and recommended in the Report.

Barnum's self acting pump is highly extolled as it was in the Report presented to Congress on the same subject in 1845. Mr. Easton's apparatus is also highly spoken of.

Mr. Burke says that it is his deliberate opinion that the best remedy for all the evils complained of, would be to make a strong appeal to the interests of boat masters and proprietors, by giving a remedy, where explosions result in injury to persons or property, to the individuals wounded, or the nearest relative or friends of the killed, in the shape of heavy damages recoverable by action at law. He recommends both personal and boat property of boat owners be held as a *lien*, to respond to the damages of a plaintiff, and that all the members of the corporate body owning a boat, be held liable jointly and individually for damages.

High Pressure and Low Pressure Engines.

The high pressure engine as constructed with the condensing engine has the loss of the vacuum, for there is a diminution of its power by the counteracting pressure of the atmosphere on the educting side of the piston, but this counteracting pressure must be obviously less in proportion according to the high pressure of the steam. Bourne believes that a high pressure engine working at from 70 to 90 lbs. on the square inch, as in the case of locomotives, has about the same efficiency from a given quantity of water raised into steam as the condensing engine. For example, if the pressure of the steam in a high pressure engine be 120 lbs. (105 above the atmospherical resistance will only be one eight of the power. If the pressure of a condensing engine be 16 lbs. on the square inch (1 pound above the atmosphere) and the vacuum be only worth 13 lbs. this will be a loss of one eighth in the condensing engine; therefore a high pressure engine working with steam at 120 pounds pressure has the same proportional atmospheric resistance as a condensing engine working at 16 pounds pressure with the oss of 2 pounds in the vacuum by the attenuated vapor therein. Steam at a pressure of 8 atmospheres, works with the same proportional resistance as the condensing engine working with steam at one pound above the atmospheric pressure. What then is the relative value between a high pressure and a low pressure engine? On this point there are different opinions among practical engineers.—Some contend for and some against the high pressure engine. The condensing engine is more expensive, more complex, occupies more room, and is much heavier than the high pressure. The high pressure is more dangerous, it has the loss of the vacuum and needs more lubricating material.

The advantages claimed for the high pressure engine, are lightness, cheapness, compactness, simplicity, and no condensing water required.

The condensing engine has the advantage of the vacuum, less lubricating material and far less of wear and tear from pressure. For boats navigating shallow rivers, the high pressure engine is best adapted, and for moveable engines such as locomotives, it is also to be preferred. For lifting weights, such as operating cranes and windlasses, and for working hydraulic presses, where a variable power is required, it is also to be preferred. But for a stationary engine many prefer a condensing one, and no doubt they are correct when they use one of such power as will do its work with ease, using the steam expansively. Some who have tried both kinds believe that one good condensing stationary or marine engine, can be worked at less expense and will last longer than two high pressure engines.

For the Scientific American.

To the Fire Department of New York.

The streams of water thrown direct from the ground or tops of engines into the windows of a burning building, are oftentimes almost ineffectual from the great height of the windows, the water having to be thrown almost directly upwards, and therefore but a small portion being of much service, and ladders are not always of sufficient length to reach the windows.

Now I propose in a measure to remedy this as follows :—

Take four ladders of equal length, two of which raise with their tops against each other (which by a simple contrivance can be made to clasp) then place the others one each side, which will act as braces; thus forming a firm and high stack from the top of which four streams can be thrown into the windows of the building opposite which they may be placed.

This proposition I think would be worth your trial, and the expense you see trifling.

My plan for securing the ladders I can give if you think necessary. H. M.

New York, May 1st, 1849.

[Will H. M. give us his plan for securing the ladders and bracing them perfectly. We would not like to trust ourselves with a pipe on the top of the *second* ladder, when only braced by its tall fellow; that is, as the ladders in use are constructed.

Daniel's Planing Machine.

Messrs. Richard Ball and Thomas H. Rice, of Worcester, Mass., who purchased of Mr. Thomas E. Daniels the inventor, the right of his planing machine, are now successors and successful manufacturers of his machines, to which they have added some very valuable improvements, with a true Yankee spirit of inventiveness.

These machines have now a justly deserved reputation for squaring out stuff for machinery and all kinds of mill work, floor and other kinds of boards, and stuff for bedsteads, tables, bureaus, and for pannelling, and for hollowing out water wheel linings. They are also capable of planing iron by being made strong enough.

These machines are delivered in Worcester, (always on hand, ready made to fill orders) at any moment. The prices are very reasonable. One 7 feet long, to plane 30 inches wide with common gearing costs from $200 to $250.

Travellers can now go from this city to Cleveland, Ohio, in two days.

Patent Case.—Iron Blast.

At Trenton, N. J., before Judge Grier of Philadelphia, a case was tried for the infringment of a patent, C. C. Alger, of Stockbridge, Mass. vs. J. E. Edsell, of Hamburg, N. J.—The patent was for an improvement in the arrangement of the blast pipes leading from the heating oven or cylinder to the tweres, which were placed inside of the stack between the lining and the stone work by Mr. Alger, instead of bringing them down on the outside as in the old way. This arrangement was adopted by Mr. Esdell, with the addition of a large box of cast iron behind the lining of the boshes, through which the air also passed to the tweres. This was used 15 months before the suit was brought. The effect of the improvement was held to be the keeping of the supply blast at an equable temperament.

The defendant contended that the additional box behind the boshes altered the nature of the invention—that Alger's produced an inferior article of iron than was produced before its introduction, with a greater consumption of stock. This defence was held to be of no consequence as affecting the matter of infringment, but only as one of degree for the amount of damages. A verdict was given for the plaintiff of $350.

This is a case which goes far to show that our Courts and Juries are willing to sustain and protect inventors in some rights, more freely than those rights are sometimes conceded to them at Washington.

American Cast Steel.

It is not generally known that the important article of cast steel—for the supplies of which we are dependent on foreign countries, principally England—is now produced in this country from American iron, and that of a quality much superior to that imported. For this important advancement towards a state of entire independence of other countries, we are indebted to the energy and enterprize of the Adirondac Steel Manufacturing Company, and to the ingenuity and science of their superintendent, Mr. Joseph Dixon. Their manufactory is located at Jersey City, N. J., and the iron which they use for making the steel is manufactured by themselves, at their works situated on the western borders of the county of Essex, in the State of New York. The ore from which it is made is there found in inexhaustible quantity, and being in the heart of an extensive forest, which will furnish charcoal for a century, their works might be so extended as to meet the wants of the Union.—They are now prepared, we understand, to furnish steel of all sizes and forms, and at prices below that of the best qualities of imported steel.

Mr. Dixon is a man of uncommon ingenuity, and scientific attainments. We have been informed that the English steel imported now from some cause or other, is not so good as it used to be some years ago. Our informant is a gentlemen who is a large tool manufacturer and is able to judge.

The Lowell Machine shop has declared a semi-annual dividend of 10 per cent. This is doing good business and shows that it must be well managed.

Banvard has bean invited to visit Windsor Castle with his Panorama, where the Queen and royal family will examine it. This is a substantial compliment to American genius and enterprise, in old England.

We thank our friends of the Wellsburg Herald for their generous notice and also for informing us that they published the prospectus of the Scientific American. We shall certainly forward the paper regularly hereafter and regret that we overlooked them, which was certainly inadvertance. We cannot forward all the back numbers.

Our London Patrons.

We are happy in being able to inform our English patrons that such arrangements have been completed with the London Patent Office that the Scientific American may hereafter be found there. Messrs. Barlow & Payne are agents at 89 Chancery Lane, and will receive remittances on account of the Scientific American from those who may desire to subscribe.

Terms—3 dollars per year and postage paid out of the United States.

LIST OF PATENTS.

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending May 8, 1849.

To Prouty & Whitman of Philadelphia, Pa. for improvement in Corn Shellers. Patented May 8, 1849.

To Thomas Lockett, of Warren Co., Geo. for improvement in Sausage Machines. Patented May 8, 1849.

To A. J. Goodman, of Duval Co. Florida, for improvement in Broom Brushes. Patented May 8, 1849.

To Lyman Baker, of Newbury, N. H. for improvement in Spring Rake Teeth. Patented May 8, 1849.

To L. A Hall, of Newark, N. J. for improvement in Trusses. Patented May 8, 1849.

To Munson & Pratt, of Fremont, Ills. for improvement in Washing Machines. Patented May 8, 1849.

To L. B. Woods, of Bradford, N. H. for improved self acting Railroad Switch. Patented May 8, 1849.

To Chapman Warner of Louisville, Ky. for improved Lugs & Links for connecting pipes. Patented May 8, 1849.

To W. C. Hicks, of Rutland, Vt. for method of operating railway switches. Patented May 8, 1849.

To John Hopkins, of Brownsville, Pa., for improvement in brewing and preserving alcoholic drinks. Patented May 8, 1849.

To Wm. & W. H. Lewis, New York City, for improvement in Daguerreotype apparatus for gilding plates. Patented May 8, 1849.

To Lemuel Hedge, of New York City, for improvement in Saw Mills. Patented May 8, 1849.

To F. M. W. Webster, of Newport, Ky. for Improvement in Bedsteads for Invalids and others. Patented May 8, 1849.

To Wm. Watson, of Chicago, Ills. for improvement in destroying weevil in grain. Patented May 8, 1849.

To Geo. H. Dodge, of Attleborough, Mass. for improvement in apparatus for Spooling yarn. Patented May 8, 1849.

To Rufus Powers, of Prescott, Mass. for improvement in machinery for working timber into irregular forms. Patented May 8, 1849.

To J. S. Conant, of Dracut, Mass., for improvement in Sewing Machines. Patented May 8, 1849.

To D. L. Weatherhead, of Providence, R. I. for improved method of constructing & operating the header in Belt machines. Patented May 8, 1849.

To John Bachelder, of Boston, Mass. for improvement m Sewing Machines. Patented May 8, 1849.

To T. G. Bucklin of West Troy, N. Y. for improvement in preparing metallic patterns for casting. Patented May 8, 1849.

To Martin Guild, of Boston, Mass, for improvement in Machinery for laying ropes. Patented May 8, 1849.

To M. H. Ford, of Boston, Mass. for improvement in Annunciators for Railway Carriages. Patented May 8, 1849.

To Harvey Law, of Wilmington, N. C. for improvement in Machinery for dressing Staves. Patented May 8, 1849.

To A. D. Boynton, of Haverhill, Mass. for improvement in Machinery for cutting soles of boots and shoes. Patented May 8, 1849.

To William Montgomery of Roxbury, Mass. for improvement in Tarring Rope Yarns. Patented May 8, 1849.

To Richard Coad, of Kensington, England, for improvement in the combustion of Fuel. Patented May 8, 1849.

DESIGN.

To Abram Haney, of Troy, N. Y. for Design for Stoves. Patented May 8, 1849.

A pail, bucket and barrel factory is about to be started at Augusta, Ga. by Messrs. Glendinning & Lockhart. In connection with the wooden ware, machinery will be erected for cutting and polishing marble.

Blanchard's Patent.

(*Concluded.*)

Now when the cutters are acting with this alternate or reciprocating motion, they can scarcely be considered as moving on a cutter wheel, implying, as this does, the idea of continuous rotation. The abstract principle, therefore, that shall include both forms of structure, cannot recognize the cutter wheel, strictly speaking, as an element of the combination, but rather a cutter, or series of cutters, deriving motion from a circle, and acting in a circular arc.

If this were the correct definition of Mr. Blanchard's principle, the difference between the two machines would be resolved very easily. One, the patented, applies the revolving power immediately to its work, in the most simple, convenient, economical, and effective mode;—the other, the defendant's, interposes between the revolving power and the work an additional member, that serves no purpose whatever, unless to avoid identity with the patented machine.

The patent law would give but an illusory protection to the meritorious inventor, if it respected devices like this. It requires of a patentee, that he shall disclose in his specification the most beneficial mode of applying his principle that is known to him. (Neilson's patent, *Webster Ca.* 337.) But it does not require of him to go further, and point out all the possible contrivances by which the machine that illustrates his principle can be rendered less beneficial or less perfect. The more fully matured his discovery, the more complete his machine in all its parts, the more signally and immediatety profitable to the community,—the greater will be the number of the defects it has avoided or provided for, and the greater of course the number of changes for the worse that may be grafted upon it by a forward ingenuity. For surely ingenuity may be so styled, when it toils with inverted energies, not to improve or advance, but to devise something less useful and more costly than that which was known before.

But, in truth, the principle of Mr. Blanchard's invention calls for a less restricted definition than that which I have for the moment assumed. Strike out from this specification all the details of structure, or look thro' them into the inventive idea, the esssential principle that resides within, and what do we find? A tracer, so arranged as to pass in a spiral or helix line over the surface of a model,—while the rough material revolves in a similar line under a cutter, guided by the tracer, but acting with independent rapid motion,—the combination of these for a declared purpose: this is the principle of the Blanchard patent. All the rest is detail, properly introduced into the specification, as exhibiting "the most beneficial mode of applying the principle," but essentially forming no part of it.

Now although it be true, that, technically speaking, an inventor cannot claim a patent for the principle he has discovered, yet it is equally true that, if he has embodied it in any clear, definite, and distinct form, others will not be permitted to take that principle and embody it in some other form merely copied from his; "and thus," as was well argued in the case I have cited, "you may attain a result which is practically equivalent to the patenting of a principle," for when you have put your invention into shape, no person will be allowed to come in and steal the spirit of your invention, by putting it into some other shape, which, though different, is imitated from your's.

The defendant in this case has mistaken his legal rights, and the sooner he is advised of his error, the better for him and for the public. He is obviously possessed of considerable mechanical ingenuity, which, if applied in a different direction, may advance his own interests, while contributing incidentally to the interests of art. But he has confounded the details of Mr. Blanchard's machine with its principle, and in seeking to escape from the operation of the patent, he has violated the law by which it is guarded.

It is possible that he may have been misled by the language of the charge, when his case was before me on the law side of the court. Abstract propositions are liable to inaccuracy, when elicited in the haste of a trial at bar, and however accurate, they are not suited to the purpose of imparting instruction to a jury. I prefer, therefore, generally to employ illustrations, derived from the case itself, to convey the legal principle which should rule it rather than to announce the law in general and abstract terms. It is enough for me if I can succeed in teaching all that belongs to the circumstances and the time.

This consideration, however, of the possibility of my having been misunderstood, will have its influence with me in the future stages of this proceeding; and the attachment which I feel it my duty to award will be set aside on payment of costs, upon my receiving an assurance from the defendant that he will desist from violating the complainant's patent any further.

Nova Scotia Mines.—Cast Steel by Simple Fusion Direct from the Ore.

Messrs Munn & Co.

On a recent occasion you were pleased to make favorable mention of the specular iron of Londonderry, Nova Scotia, in your valuable paper. A company is now formed in Halifax comprising among its Directors the first men of that city with every prospect of success, notwithstanding the depressed state of the iron trade generally, in Europe as well as America.

The remarkable character of this ore is, that from its extreme purity, (containing nothing but oxygen) it is capable of being manufactured into iron and steel *direct* from the ore, thus reducing the cost of producing these commodities more than one half.

Mr. Robert Mushet of Coleford, England, has tested the Londonderry ores on a manufacturing scale. I copy from the London "Mining Journal" of the 17th of June 1848, a statement published by him showing what *cast steel* of the best quality can be produced by carrying the ore to England, and where charcoal made from oak cost about £4 per ton. Mr. Mushet's calculations were made upon this data. Every ton of cast steel will require about 6 cwts. of charcoal. I presume that charcoal of equal quality can be obtained in New York for one half the cost in England.

I believe that your hard coal with a soft blast from fanners would answer remarkably well for smelting in the crucible and with a corresponding saving as compared with coke. Mr. Mushet's estimate is as follows.

2 tons of ore at 60s., including freight to England,	£6	0	0 st.
Preparation of the ore and labor 30s. per ton,	3	0	0
Cast steel pots per ton,	1	15	0
Coke 4 tons at 14s., per ton,	2	16	0
Repairs of furnaces, waste &c.,	2	8	0
Drawing down into inch square,	4	0	0
Waste in drawing.	12	0	
Cost of one ton of cast steel,	£20	11	0

"As this steel would be of the best quality, I am warranted in assuming, that it will sell readily at a price which would realize £20 net profit per ton of bars. Without any establishment in Nova Scotia, beyond that required to raise and ship the ore to England from their ores, or 2500 tons annually, the sale of which would return them a nett profit exceeding £50,000 per annum."

Now 1-5 of this capital or $15,000 would be quite ample to cover the expense of fitting up of an establishment in the vicinity of New York, near a Shipping Port or a Railroad station, where a suitable site might be secured for, I presume a few hundred dollars, to make 20 tons of cast steel weekly, and the number of furnaces might be multiplied at pleasure to exceed, if necessary, Mr. Mushet's estimate of 50 tons weekly.

The Converting furnace for deoxydizing the ore might be made sufficiently large at very little more expense to prepare the ore for any given number of smelting furnaces. A steam engine of ten horse power high pressure, would have ample power to grind the ore and blow the furnaces, another of 6 horse power, would work the tilt hammer and blow the forge to heat the ingots.

The object of this communication is to bring the subject of Steel Making in New York, under the notice of Capitalists of the City,—and if one or more individuals (not exceeding four) will raise the necessary capital say $16,000, the subscriber will furnish $4000 worth of ore and fire clay at a reduced price to that calculated to deliver the ore in England, making together $20,000, and will undertake to furnish the Company delivered at New York such quantities of ore and clay, for any number of years as they may contract for.

Being in England and Scotland last year arrangements are made with parties to come to America to conduct a work of this kind if the capital could be raised, so that there will be no difficulty in obtaining proper persons who are known to be competent to superintend such an undertaking.

Specimens of the ore and fire clay, may be seen at Thomas L. De Wolf's 108 Broad St., as also samples of steel produced from this ore as already stated. Also a sample of malleable iron, made direct from the ore in a puddling furnace, on a manufacturing scale at the "Bridge Water" Iron Works on Tuesday last.

Your Obedient Servant,

JOHN ROSS.

Parties wishing to embark in this lucrative manufacture are referred to Thomas L. De Wolf 108 Broad Street. If by letter post paid or to "Crowell Brooks & Company, Commerce, Wharf Boston." where similar specimens and samples may be seen and further information obtained.

Truro, May, 1849.

[Specimens of this ore may be seen at this Office and we have in our possession some strong vouchers of the value of these ores, in extracts from the London Mining Journal of June 3d, 1848.

A Royal Siamese Machinist.

The Singapore Free Press of Oct. 19, 1848, publishes the following communication from Bangkok, Siam, describing the proficiency attained by a native prince in mechanical art:

Some time since, it was intimated that his Royal Highness, Prince T. N. Chau-Fa-Rhromakhun Isaret Rangsan, had commenced the construction of a small steam-engine. This, under the most indefatigable and preserving exertions on his part, has at length been completed, and the Siamese can now boast of having running on the river Menam, a steamboat every portion of which has been made and manufactured there, and entirely by native artificers. She is 26½ feet long, 3 feet 10½ inches broad; the engine being 2 horse power. This little phenomena has made several trips up and down the river, his Royal Highness the Prince generally acting steersman himself in full view of thousands of astonished and admiring spectators, who crowded the banks of the river on each occasion. The Prince is naturally enough very proud of his steamer, and some few days since, passed up and down in front of the palace with her before His Majesty the King of Siam, who was graciously pleased to pass the highest encomiums on his ingenuity, made him a munificent present, and honored him with his commands to have another steam-vessel constructed, sufficiently large to be capable of proceeding to Singapore, which his Highness has undertaken to accomplish. From not having copper or iron here of sufficient thickness, the boiler has been constructed in such a manner as to add very considerably to its weight, and in consequence detracting much from the speed of the boat. His Highness expects, however to be able to rectify this in some measure—to effect which, he has commenced building one on quite a different model, more buoyant than the present one, and with larger paddle wheels, and has sent to Singapore to have copper sufficiently thick for new boilers brought up.

The workmanship of even the most minute part of the engine is truly admirable, and reflects the greatest credit on its royal constructor, who had every portion of it made under his own immediate superintendence and constant inspection, and by workmen all self-instructed, being His Highnesses' body servant and retinue.

The last resource to raise the wind is that of a shrewd but not scrupulous Yankee, who bought a bushel of shoe pegs, and on discovering they were made of rotten wood, sharpened the other end, and then sold them for oats!