

Scientific American

NEW YORK, FEBRUARY 16, 1850.

Civilization, Inventors, Invention and the Arts.

REPORT OF THE COMMISSIONER OF PATENTS.—Part of this Report has been issued in a very neat form, by J. S. Redfield, of Clinton Hall, this city. It consists of 100 pages of closely printed matter, and is illustrated with a number of good wood cuts relating to the Art of Propulsion. It is our intention to present the principal part of these in our history of Navigation, and we therefore will not say anything upon that subject at present, but there are so many new subjects touched upon,—so many rare facts brought forth in the other parts of the Report, that we think it will be of interest to every one of our subscribers to read a few of these which we have selected.

In the introduction, differing from "Douglas on the Advancement of Society," he says in reference to the *Advent of the Arts*, "Man has everywhere made his debut in the character of an Orson. The annals of all the people of old began with their condition as savages—those of the Jews form no exception." This is a singular chapter, but we pass over it to another part. "The Earth," he says, "is a laboratory, in which, as a chemist, man has hardly begun to operate. When every force, latent and manifest is brought into service, and made the most of,—when man has spread his influence over every foot of the earth's surface, and brought the stores beneath it within his reach—when mundane matter in whatever form appearing, is made to contribute to its ends, and when this planet is wholly changed from its natural wildness, into a fit theatre for cultivated intelligences, it will be time enough to speak of human advancement as culminating, and the arts as having reached the limits of perfection. Till these things come to pass, instead of looking for no more discoveries we should be prepared for a constant succession of them." So we think. On the dignity of Mechanical pursuits, he says, "this world is one of God's Workshops, and the universe a collection of his inventions, and in Him the squeamishness of half-formed philosophers and of high bred fashionables respecting manual and mechanical pursuits, finds no sympathy, but terrible rebuke. His works proclaim his preference for the useful to the merely imaginative, and in truth it is in such, that the truly beautiful or sublime is to be found. A steamer is a mightier epic than the Iliad,—and Whitney, Jacquard and Blanchard might laugh even Virgil, Milton and Tasso to scorn."

In regard to what inventors have done, he says, "The idea is common that savans discover and inventors apply. It is not always so. Nearly every marked advance in civilization, began with and is due to the latter. The invention of printing, spinning frames, power looms, the steam engine, gas lights, steamboats, lithography, telegraphs and railroads, honorably distinguish our times" and mark the rapid advance of civilization. The chapter on this subject is very interesting. There is a capital chapter on the oppressions of the industrious classes during the dark ages, by the most unrighteous patents or monopolies, whereby workmen and manufacturers suffered the most unjust persecutions and exactions. No one should fail to read this chapter, it would enlighten those calumniators of the present age, who feast with riotous pleasure upon the "good old days." He believes that Prime Motors are the Chief Levers of Civilization—such as the Water Wheel, Steam Engine, &c. He says, "there is no hazard in asserting that none of the ordinary modes of employing water as a Motor, are perfected.—The re-acting water wheel, until a recent period was little else than a toy in the lecture room, while, as exemplified in the turbine, the same principle has yielded eighty per cent. of the power employed. This strongly admonishes us, certainly, to investigate every source of mechanical force, with a view to economise it. Prime movers are too precious gifts to be only half used up. The turbine elucidates a truth,

which inventors, above all other men, should cherish." In reference to Electric Motors he says: "At the present cost of metallic fuel (zinc), electro magnetism cannot become commercially valuable, nor can it compete with steam in any of its ordinary applications—for there is more virtue in a pound of coal than five of zinc. He believes that a new power is now wanted and looked for, and that there is a vast field of enterprise open for its introduction.

Nature, he believes, has yet her hidden mysteries, which the genius of man must extort from her. The water-spout can be observed in its workings, lifting water from the bosom of the ocean, but no one has yet been able satisfactorily to explain the causes of such a phenomenon.

We have but gleaned a few kernels from this Report; it may furnish us with texts and matter for one or more future reviews. In all likelihood it will not be published by government for some months, and this suggests to us the propriety of some inventor introducing an improvement in the mode of doing government business, so as to get the printing executed better and faster than has been done during the past two years. No one can get this Report by writing to Washington—it is a private enterprise, engaged in by the sensation created for the whole of the Report, from the extracts of it which were published in the Tribune of this city. See advertisement.

Pneumatic Pile Driving.

In our last number we gave a representation of a pier that was built upon Tubular Piles, sunk by the invention of Dr. Potts, who has just secured a patent for the United States.—In our description last week, we promised to give a fuller explanation of the process, and we will now proceed to do so.

Pile Driving is of great importance to the Hydraulic Engineer, and the means of expediting the old plans, have long engaged the attention of many eminent men. By the present plans, a great power is exerted by repeated blows to force down the piles—the soil has to be forced apart, to make room for the pile which if driven in like a wedge. The depth to which a pile can be driven is limited by the length of the pile of timber. The new process of Dr. Potts is entirely different from any heretofore employed. He employs a hollow pile, places it perpendicular on the spot where it is to be sunk, exhausts the air from it by a pump, the soil is drawn up through it from below, and the tube sinks as the soil is drawn up by the continued operation of the air pump. The pile is not driven down by the mere pressure of the atmosphere on the top of the pile, but by the continual undermining process going on at the bottom of the tube, and the pressure likewise—thus a driving and excavating process goes on at the same time. This is the distinction between this and the old plan of pile driving, and experience has satisfactorily proved that in proper situations this new process is by far the best. The tubes are made of cast iron, and can be constructed in such a manner that one can be tightly fitted on to the other, as it is sunk nearly to the surface of the water, and thus a pile of an hundred feet may be made up and sunk in sections. It will be observed that this process is only adapted for sinking piles in sand banks or bars, but at the same time it will sink a tube farther and easier in the most compact sands, than can be done by the old methods. These tubes have been sunk for a beacon on the celebrated Goodwin Sands, to a depth of 32 feet. Admiral Beaufort experimented on the same sands with a steel bar, and could drive it down only eight feet with a sledge hammer. It is a process which commends itself for carrying telegraph wires over many rivers, by sinking piles for posts at considerable distances from the shore. There are many places very favorable to carry out such an object. The practical operation of this discovery develops one fact, which would not readily be apprehended, viz., that gravel, clay, shingle and stones of considerable size are drawn up, and the stones, like the large sparks from a locomotive, are drawn up first—the heaviest bodies thus running up faster than the lighter particles. This is owing to the cohesion of the masses, for the pres-

sure is equal on the whole surface, but it shows that these piles may be sunk in very refractory soils, if there is moisture to assist the adhesion of the soil in passing up through the tube, and what is essentially necessary at the same time, prevent the air from getting into the tube in any way. In a good operative model, we have seen masses of metal carried up through the tubes, with apparently greater facility than sand. The principle can be applied to a great number of purposes—such as well sinking in many places, and also for excavating itself. One good application of it would be to make sea walls by sinking the tubes, forming them into groins, and filling them up with concrete, which in time would form a wall better than any other kind whatever, and certainly at far less expense. These are our opinions, formed from observation.

We could say a great deal upon this subject, but we trust that enough has been said by us to convince our Civil Engineers that if they do not pay particular attention to this invention, they will be blind to their own interests, and exhibit a want of scientific enterprise. For piers, embankments, &c., in quicksands, we know of no discovery equal to it. If it had been employed in the construction of the U. S. Dry Dock at Brooklyn, it would, we believe, have saved at least half a million of dollars.

For the Scientific American.
Explosion of Steam Boilers.

The recent and horrible effects arising from the explosion of steam boilers, induces me to do what I have long intended, viz., to make public my own experience in the management of them—owning and running a steam engine, as I did, for a long time in this city, the boiler of which was old, and running the engine, as I did, for a long time at from 100 to 150 lbs. pressure, as indicated by the weights on the safety valve (which was one of the best construction and kept perfectly clean, so as to indicate the pressure upon it), I can, with truth, testify to the following:—The boiler was 22 feet long and 30 inches in diameter. When I commenced business I had it examined by a careful and competent boiler maker, whose report was, that with care it might last for years, so far as he could judge by entering it at the "man-hole" and sounding it. He said, however, that he could not judge of the strength at the "fire line," except from its appearance, which was fair. At this line, you are aware, he could not judge by "sounding," the bricks being in contact with the boiler. I drove the said engine some three years without any repairs to the boiler, and at the pressure above stated, when I sold out; and the boiler was taken out to be repaired by my advice. On taking it to the boiler maker the workmen were astonished at its having been strong enough to withstand the pressure, they being aware of the work done in the establishment, being able, as I witnessed myself, to strike a small hand-pick, weighing from 3 to 4 pounds, the point from 1-4 to 3-8 in diameter through the boiler, every blow along the fire line, and the bottom sheets which had been exposed to the fire.

The engineer and fireman first employed by me were content with keeping the water above the lower guage cock, but certain that there was no necessity for so large a space as steam chamber; and finding that the lapse of but a few minutes after a trial of the guage, showing water at that point, that nothing but steam issued, I gradually increased the amount of water in the boiler, noting the effect, and was agreeably surprised to find that keeping the boiler almost full of water had one good effect. We were not as liable to fall short of steam (the fire being the same) and by obliging the fireman to keep the water at the upper guage, it increased his attention to it, inasmuch as a little too much would cause an overflowing of water into the steam cylinder, which gave him trouble.

I have frequently, since I was engaged in the business alluded to, reflected on the apparent danger we encountered, but have long since come to the conclusion that we would probably have escaped injury for the reasons I will now attempt to describe, and would be much gratified if you would besides giving your own opinion on the subject, submit it to

your readers. What I am anxious to have is the opinion of scientific as well as practical men.

It is simply this, that water, being almost incompressible, and steam compressible to an extent limited only as it would seem by the strength of the vessel containing it, that no safe guard is needed to do away with all danger arising from explosions further than fill your Boilers with water, constructing them, so far as the steam chamber or reservoir goes, somewhat in the form of locomotive boilers.

No one would contend that there is any necessity for keeping a supply of steam in your boilers, further than is wanted for a few revolutions of your engine, and the amount of heat being the same, as necessary to keep up the supply with the water at the fire line, will certainly give the requisite amount. In fact I found by experience that with the greater quantity of water, less attention was needed.

Compare for an instant, the number of locomotive engines in our country with those of all other kinds: I presume there are many more of the first. Compare the size of their boilers and the power they furnish: are not explosions very rare among them compared with all others? I think so, and believe it to arise from the fact that the engineers are obliged to be at their post and to keep their pump in motion a great part of the time, owing to the flues being near the top of the boiler, and the steam chamber being so small.

I have heard it asserted by scientific men, in whose judgment I feel great reliance, that in case of an explosion of a boiler, "nearly filled," as I have described, that the effects would, in their opinion, be as disastrous as in the case where the water was kept as customary at the fire line; and in the hope that your insertion of this will draw out something valuable from yourselves or others, I submit it to you.

That ten or twenty cubic feet, packed with steam, could do the same damage or exert as much power as one hundred, I cannot believe yet. I saw a boiler some years since which had "burst" a few days previous: it had been nearly full of water, and further than a rent across a sheet exposed to the fire, through which the water escaped and put it out, no damage was done.

To conclude: if, as I firmly believe, all steam boilers could be constructed advantageously, as described, and a United States law was passed, that all steam engines of ten horse power and upwards, used on board steamboats or in manufactories, should have connected with them an apparatus which would ring a bell at stated intervals; say every 20 minutes, or a certain number of revolutions of the engine, on which signal some one having charge of the boilers would be required to try the guage cocks, a heavy penalty being imposed on the captain or owners for every omission—putting on water if necessary, I firmly believe we could and would travel by steamboat in perfect security. Yours truly,

Phila. ENQUIRER.
[We will make some remarks on this most important subject next week. We would merely state here (as this is a question of importance every moment), that there are truths in the above letter which cannot be set aside by any sophistry whatever.—Ed.]

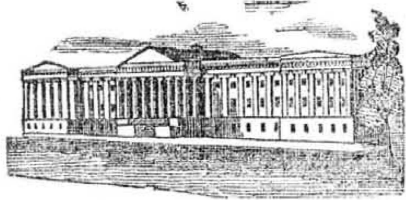
Building in New York.

In the last year 1495 new buildings have been erected, making an increase of upwards of 300 over the preceding year, and nearly double the number erected in 1838. Within the last fifteen years 20,000 structures have been built in this city.

In publishing the list of gold medals, granted by the American Institute, at the late Fair, we omitted to notice that one was granted to Mr. McCormick for his Patent Virginia Reaper. He would esteem it a favor if those Editors who omitted this notice would take the opportunity to insert it.

Erratum.

In our correspondent's letter from Washington, last week where it refers to the articles deposited in the National Institute it mentions "and the other fruit," it should read "and the osher fruit."



LIST OF PATENTS CLAIMS
ISSUED FROM THE UNITED STATES PATENT OFFICE.

For the week ending February 9, 1850.

To A. Babbett, of Auburn, N. Y., for improvement in machinery for spooling.

What I claim is not the abstract production of friction between the thread or yarn or any other substance, as the thread or yarn passes from the runners to the bobbin or spool, so as to secure the winding of the thread or yarn tightly on the bobbin or spool, but I do claim as my invention the combination of machinery hereinbefore described, whereby in machines for winding yarns or threads on bobbins or spools, the thread or yarn on its passage from the runners to the bobbin or spool, has applied to it friction produced between the thread or yarn and any other substance, which friction diminishes with uniformity as the pull upon the thread or yarn from the runners increases, and increases with uniformity, as the pull upon the thread or yarn from the runners diminishes, such combination consisting, as shown in the vibrating lever, the stand, the joint, the three pins, the four pins, the box, the spiral spring, any one of the three hooks, the staple, and the guide, substantially as set forth.

To S. G. Blackman, of Norwalk, Conn., for improvement in Carding Machines for preparing bats for felting.

I do not claim the producing an interlocking of the fibres of wool by means of a reciprocating longitudinal movement of either the carding cylinders of a carding machine working against the doffer; but what I claim is the production of the requisite interlocking combination of the fibres of wool preparatory to converting the same into felt cloth, by subjecting the said fibres to a rubbing or combing action while they are upon the doffer of a carding machine by means of auxiliary cards, or other suitable friction surfaces substantially as herein set forth; not intending by this claim however, to limit myself to the special and particular manner of producing the said interlocking of the fibres of wool while they are upon the carding machine doffer, as herein set forth.

To Gail Borden, Jr., of Galveston, Texas, for preparation of portable Soup Bread.

I do not claim the extract of flesh made into what is known as portable soup; but I claim the new and useful manufacture of desiccated soup-bread, formed of the concentrated extract of alimentary animal substances, combined with vegetable flour or meal, made into cakes and baked into bread, in the manner substantially as herein described, for the purpose set forth.

[This is one of the most valuable inventions that has ever been brought forward, and will be the means of enabling travellers and mariners to enjoy both vegetable and flesh in a most dainty dish at any moment, and what is better, a traveller may carry a month's provisions in a small tin case. It is now used exclusively by Texan vessels sailing from Galveston.

To James Buck of Bucksport, Me., for improved Excavating Auger.

What I claim is the formation of a machine or instrument for boring the earth under water or otherwise and retaining the substance bored until it can be brought to the surface which I construct in the manner following. I first make two sections of a cylinder or pods, the one of which is enough smaller than the other to admit its turning into the larger one, and I connect them together by pivots through the ends of each, the larger section of a cylinder or pod having a lip similar to a pod auger, and I attach a shaft or handle firmly to the upper pivot, which pivot passes through the centre of the outer section of a cylinder or pod, and is attached firmly to the smaller section of a cylinder or pod, so that by turning the shaft one way, I put it into a pod auger shape, ready for boring. By reversing the motion of the

handle or shaft it turns the inner section of a cylinder out of the other, making it into a cylindrical or bucket shape and thereby secure the substance bored.

To D. N. & E. B. Day, of Westfield, Mass., for improvement in Whip-lashes.

What we claim is a new manufacture for whip-lashes by making plaited whip-lashes of spun and twisted threads, or cords, as described, instead of leather thongs, the same being plaited over a central cord or core, extending the whole length, as described, and a swell made of cotton, or other soft and pliable cloth attached to the central core, without rolling, substantially as described.

To C. B. Hutchinson, of Waterloo, N. Y., for improvement in machines for cutting staves.

What I claim as my invention is the mode of cutting staves to the required curvature, with a spiral drawing stroke, by means of the segmental plate, having bars or ribs at its ends, to which the knife is attached, segmental rims moving in the segmental slots formed in the side plates, and containing slots through which the segmental plates move; spiral slots in the plates and bars, passing through the same, substantially as herein set forth.

[This excellent machine is illustrated with four engravings in No. 2, this Vol., Sci. Am.

To J. Haines, of West Middleburgh, Ohio, for improvement in Washing Machines.

I do not claim the tub, nor do I claim fluted rubbers for cleaning clothes, or any of the parts heretofore used for washing clothes, but what I do claim is making the disc with a hinged segment, to admit the clothes beneath the same, being so arranged as to rise and fall vertically as it is turned horizontally over the clothes by turning the vertical rock shaft to the right and left, as described.

To J. Maynard, of Philadelphia, for improved friction roller sash reporters.

What I claim is the combination of the loose roller, spring, and friction wheel applied to the window sash, as herein set forth, whereby the sash is held in any position to which it may be raised.

To C. Jackson & J. Moir, of Cazenovia, N. Y., for improvements in Engines for Carding and Drawing Wool.

1st. We claim the combination of what is termed the main, or condensing cylinder, with the reciprocating rod, to give the carding cylinder, a reciprocating side to side motion, in combination with its rotary motion, in the manner as herein described, or in any other manner, substantially the same, to produce the same effects.

2nd. We claim the combination of a twisting band and drawing rolls, with rub rolls of the common construction, for the purpose of reducing roping, by drawing it with twist upon the carding machine, in the manner substantially as herein described, or in any other analogous manner.

[This is a valuable invention, secured against interference. An engraving of it will be found on page 355 of our last volume.

To R. Montgomery of New York, N. Y., for improved method of punching between rollers.

What I claim is the apparatus for the purpose of punching, consisting of a series of punches thrown out at proper intervals, substantially as above described, either with or without the combined operation of corrugating said plates, as above described.

To D. D. Parmelee, of New Paltz, N. Y., for improvement in Calculating Machines.

What I claim is the making additions of figures by means of keys, each communicating a proper and known motion to an indicator substantially in the manner and for the purpose herein described.

To Wm. Sewell, Jr., of Williamsburgh, N. Y., for improvement in Water Meters.

What I claim is the employment of a flat spring with both sides of which the water, as it enters, communicates substantially in the manner and for the purposes set forth, in combination with the wings, with an adjusting spring in the centre, by means of which improvements I relieve the apparatus from danger arising from obstruction in its movement and the strain caused by the transmission of a non-elastic fluid, and cause it to move with less friction than any other form with which I am acquainted.

To James Spratt, of Cincinnati, Ohio, for improvement in attachments for Lightning Conductors.

What I claim is forming the eye of the metallic attachment with an opening, to allow the passage of a lug on the neck of the isolator, and so that the rod also can be inserted, after the attachment is secured to its place, when this is combined with a lug on the shank of the attachment corresponding to that on the isolator, substantially after the manner and for the purposes herein set forth, that is to say, enabling the rod at any time to be inserted or withdrawn, without disturbing the attachment in the building.

DESIGNS.

To P. J. Simmons, of Troy, N. Y., for design for Stoves.

To J. G. Lamb & C. Harris, (Assignors to Wm. C. Davis) of Cincinnati, Ohio, for Design for Stoves.

To Wm. P. Cresson, David Stuart & Peter Seibert (Assignors to Wm. P. Cresson) of Philadelphia, for two Design for Stoves. Ante-dated Oct. 1, 1849.

[According to the statement we made when we commenced publishing the claims, we omit those of *Designs*, because no idea of their nature could be obtained by publishing them. In respect to the two last patents above, we would say that they are for different things; the one is for the "Cottage Parlor Air Tight," the other is for the "Radiator Screen Stove." We pay the Patent Office for all the claims, but it is our object to economise our columns with condensed and useful matter.

Woodworth's Patent—Great Excitement.

A meeting was held at the Syracuse House, Syracuse, N. Y., on the 30th of last month, for the purpose of adopting measures to get a repeal of the Act of Congress which extended the Woodworth Patent for Planing Machines. Hon. M. D. Burnet was called to the chair, and Amos Westcott, Sec'y. The object of the meeting was stated by the President. Hamilton White, Esq., H. Gifford, Esq., and several other gentlemen proceeded to address the meeting, showing the oppressive character of the act referred to, and the necessity of prompt and efficient measures being taken to obtain its repeal, which they had no doubt Congress would grant, as soon as the facts in the case could be brought before them.

Several gentlemen were in attendance from abroad, who had taken great pains to collect the different patents which could have any bearing upon this subject, together with the original and amended specification and claim of Mr. Woodworth, as also a great amount of evidence which has been elicited in the trial of the almost numberless suits which have from time to time been brought for violation of said patent.

These papers were referred to a committee composed of Amos Westcott, Hon. Thomas Spencer, Henry Gifford, A. C. Powell, E. T. Hayden.

The committee, after a careful examination of the papers, unanimously reported the following preamble and resolutions:

Whereas, from the testimony laid before your committee, it is a matter of a great doubt whether the original patent granted to Wm. Woodworth, in 1828, for planing machine, was for his own invention, and whereas it is most clearly shown that his amended specification and claim on which this patent was extended by an act of Congress passed in July, 1845 is not only materially different from the original one, but so framed as to embrace an almost unlimited range of machinery, not included in the original; and whereas, this act must hence necessarily have been obtained by misrepresentation, and whereas, the great and extensive demand for such machinery as is embraced under the new claim of 1845 has enabled the owners of this patent to demand, not to say extort, enormous sums from the various kinds of mechanics using such machinery, which they must pay or incur the hazard of being ruined by litigation: it is therefore,

Resolved, That while we would most unwillingly seek to limit either the rights or reward of real inventors, or in any way curtail the encouragement which enlightened legislation will always extend to those who make new and useful improvements in machinery, we are constrained to pronounce the whole scheme of management as connected with this patent, particularly as shown in, and since the renewal of 1845, as an unprecedented example of misre-

presentation, extortion and oppression, not only in many instances ruining the hard working mechanic, but also working great injury to the public, and hence a scheme which the public at large are in duty bound to oppose and resist.

Resolved, That we must heartily concur and join in the call which has been issued and published, appointing a mass convention to be held at Rust's Hotel, in the city of Syracuse, on Wednesday, the 20th day of February next.

Resolved, That the proceedings of this meeting be published in the papers of this city, together with the accompanying call, also in the New York Tribune and Scientific American; and that the call be kept in the papers above mentioned till the time of holding said convention. These resolutions were unanimously adopted.

MOSES D. BURNETT, Chairman.

AMOS WESTCOTT, Sec'y.

The call will be found on another (2nd) Page.

Singular Explosion.

GREENVILLE, Norwich, Jan. 31, 1850.

MESSRS. EDITORS,—On the night of the 29th inst., an explosion took place at the paper mill of Mr. David Smith, in this village, under the following circumstances:—A large egg-shaped boiler, used for boiling rags, made of stout boiler iron, and weighing about four tons, was filled in the afternoon for boiling by putting into it about two tons of rags and half a barrel, or about 300 lbs., of soda ash, and two barrels of lime soda ash, previously dissolved in water, and water put in sufficient to cover the rags—the whole not filling it quite full.—It was then all closed tight with the exception of a small hole at the top, which was left open until it began to boil, then plugged up. It was heated by steam brought through a three-inch pipe, from a distance of eighty feet from the steam boiler, and was situated in a small building 30 feet from the side of the main building. After boiling about five hours it exploded, tearing off a part of the bottom, which was thrown, without touching the mill, high up over the top, and landed 400 feet from the mill, on the other side, or about 500 feet from the place it started from.

There were two distinct explosions, or reports, and the fireman says that the bricks came with the second report, though it was not so loud as the first, and he had just previously turned off a part of the steam. The steam is generated in six boilers, and but a small part of it is used to boil the rags, the rest being used in the cylinder of the paper machinery to dry the paper.

The building in which this rag boiler was situated was shivered into fragments, and another boiler, situated by the side of this one, and apparently filled in the same manner, and boiling at the same time, was left uninjured, with the exception of being moved a few inches. A large iron wrench that was left on the top of the boiler, was carried the whole distance with it—some of the rags and hot water were thrown as high as the top of the mill, which is four stories high.

Will you be kind enough to inform your readers what, in your opinion, caused this explosion, and oblige yours, respectfully,

J. S.

[We know of only one instance of an explosion like the above, and we could not account for it, neither can we for the above. We plead ignorance, believing it to be far better to do so than pretend to be learned by a dissertation on the subject, embracing nothing but "words of wondrous length and thundering sound."

All boilers for bleaching purposes, like the one spoken of above, should have covers screwed down, and have safety valves on the covers. It would be better, also, to have a small stream of steam always escaping. This is the French plan and a wise one, we think.

Culture of Cotton in Africa.

A treaty has been concluded, by which the Danish settlements in Africa, on the Gold Coast, have been ceded to Great Britain. It is stated that there is reason to believe that, with suitable encouragement, a supply of cotton of very good quality might be obtained from that part of Africa, where it is now produced, in some quantity and of very good quality, by the natives for their own use.