Meerschaum Mania.

The value of the meerschaum pipes and cigar tubes imported into the United States in 1858, it is stated, amounted to $200,000, a great sum to be wasted on a *mere sham*. This is really getting to to be a serious business. It is bad enough to waste time and money —to say nothing of breath—in the consumption of the evil weed, but when to this is added the mania for coloring expensive pipes, thus increasing the habit of smoking, the folly of it all is really too preposterous.

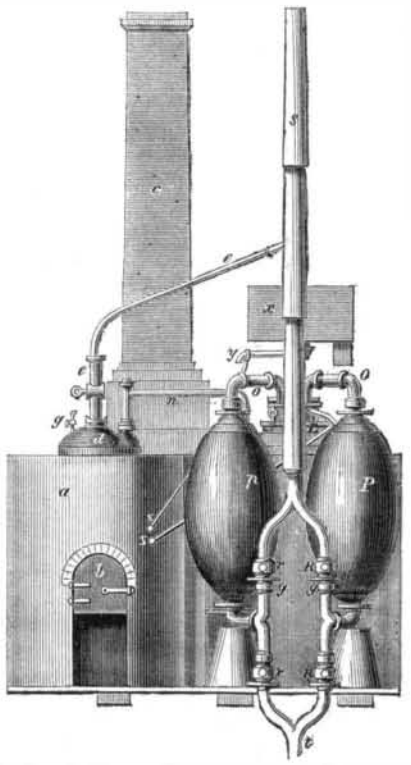
We were amused the other day at hearing a young but ambitious smoker gravely asserting that meerschaum was made of the foam of the sea! This impression has probably arisen from the German work used to designate the material—*meerschaum* meaning *sea foam*—a poetical figure of speech, alluding to its lightness and whitish appearance. It is properly magnesite, a mineral of soft earthy texture somewhat resembling chalk, found in Spain and other countries at the head of the Mediterranean. To produce the yellow and brown colors so much admired in the pipes, and which are brought out only after long smoking, the blocks of which the pipes are made, are kept for some time in a mixture of wax and fatty matters. A portion of these is absorbed, and being subsequently acted upon by the heat and the tobacco fumes, assumes various shades of color. Thus the smoker in coloring his pipe, is employed in the dignified business of mingling tobacco smoke with a mixture of wax and grease!

Here we are reminded of a little incident which recently took place within our knowledge, and which amusingly illustrates the folly of meerschaum coloring. A gentleman had an expensive meerschaum, which he doted upon, but which notwithstanding all his smoking he could not color so fast as he desired. In fact, after long puffing, it only showed one little spot of brown. Some of his friends told him they did not believe it would ever color, and the indefatigable smoker grew quite despondent. One evening his wife who naturally sympathized with him in trouble, took up the pipe during his absence and while examining it brought it over the flame of a lamp. Immediately a strong color was brought out by the heat, much to the surprise of the lady. Laying the pipe away, however, she said nothing about the matter. On the following morning when the gentleman made his usual inspection of his beloved pipe, his delight and amazement knew no bounds. His meerschaum had colored splendidly, and all owing to his indefatigable puffing! He displayed it in triumph to his friends, and became a more firm believer than ever in the virtues of tobacco smoke. Meantime his good lady said nothing, but she has imparted the secret to her female friends that they may be able to assist their husbands in their arduous endeavors to color their meerschaums. She is a very benevolent lady, and wants to do all the good she can in the world.—*Portland Transcript.*

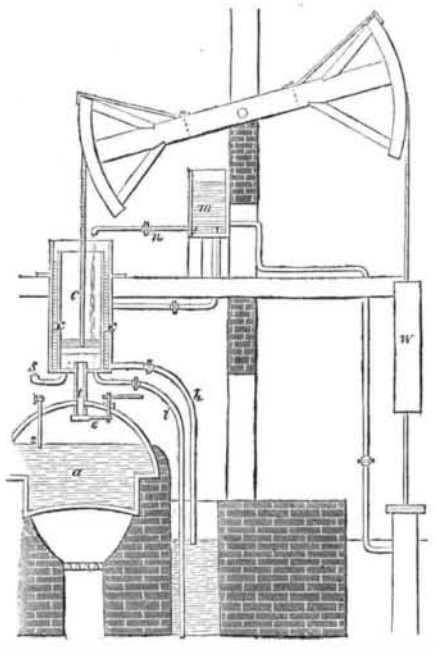
SURFACE CONDENSERS FOR STEAM ENGINES.

The following description is taken from the London *Engineer*, being a paper read before the Society of Engineers by John Louch. It will be found not only interesting but profitably useful by all who are interested in condensing, especially marine engines, as urface condensers appear to be rapidly superseding the old inside sort both in Europe and America. Mr. Louch said :—"In order to fully understand our subject it will be necessary to look a little to the history of the steam engine. Passing over the early inventions of Hero, De Caus, Branca, the Marquis of Worcester and others, as being impracticable or problematical, we come to the first really useful engine of Savery, in 1698, which was the only one of that period having any practical value, introduced to any extent for mining or other purposes."

The accompanying figure represents Savery's complete engine, invented in 1698, but we will only describe the condensing feature of it as that is all that is necessary. The two vessels, *p* P, are connected with the steam boiler by pipes *o* O, and with a well by the suction pipes, *r* R, and also with a discharge pipe, *s*, by the branch pipes, *g g*. This engine was only used for raising water from mines. The steam from the boiler passed by pipe O into the vessel, P, and when full the steam was shut off, then a stream of cold water from the cistern, *x*, flowed over the surface of the chamber, P, and condensed the steam, forming a vacuum inside. Communication was then opened with the well below, and the water ascended through pipe *t* into P. The same operations were performed with the other chamber, *p*, and the two thus acting raised a constant stream of water by surface condensation.



The great waste of steam caused by its contact with the water in the vessel, *p*, soon led to the abandonment of Savery's scheme in favor of engines with cylinder and piston working ordinary lifting pumps through the intervention of an overhead beam, as shown in Fig. 2. This engine was the invention of Mr. Newcomen, and was patented and extensively introduced by himself and his partners Savery and Cawley. After having been converted into an injection engine it remained long in use, even after being to a considerable extent, superseded by the improved engine of James Watt; indeed it may be possible even new to find it still working in some of the more primitive colliery districts.



In Newcomen's engines as originally constructed and represented, the steam is admitted from the boiler, *a*, into the cylinder, *c*, which, when the air has been expelled, and the cylinder filled with steam, is closed. Cold water is then admitted by the cock, *n*, from the cistern, *m*, and filling the casing, *c*, around the cylinder, condenses the steam therein, and thereby produces a vacuum. The atmospheric pressure now comes into operation and depresses the piston, which, by its connection with the overhead beam at the inner end, raises the other end which is attached to and works the pump. The cock, *n*, is now closed, and *h* opened to allow the condensing water to flow off into the cistern. The cock, *n*, is again opened, and the steam admitted into the cylinder by which the air and condensation water are expelled through the snifting pipe, *t*; and the counterweight, *w*, now preponderating, raises the piston to the top of the cylinder, and another stroke commences, as before described.

In working one of these engines it was observed on one occasion to make several strokes in quick succession; and on searching for the cause, a hole was found in the piston (which admitted the water which was supplied to the top for the purpose of keeping the packing air-tight) to the cylinder. Taking advantage of this accidental discovery, they were afterward invariably made with a jet of water injected into the cylinder, instead of merely to its external surface as before; and condensation by surfaces of cold metal was for some time abandoned.

Raising a Sunken Ship.

The British ship *Sovereign of the Seas*, while at Sidney, New South Wales, last summer caught fire in her upper works, and to save her from entire destruction, she was scuttled and sunk in 28 feet of water. Various plans had been proposed to raise her, by captains who had arrived at Sidney, but all were rejected as impracticable by Lloyd's agent at that place. At last Captain Lachlan McKay, of Boston, arrived in the ship *Nagasaka*, and having examined the sunken vessel, offered to raise her in one week. The proposal was deemed somewhat fanatical, but it was accepted. A large bagging of canvas was made, sufficient to cover both sides of the ship from the bilges to the plankshеer. The lower edge of this vast sheet was sewed securely to a small chain which sunk itto the required depth, after which it was hauled tight with powertul tackels, which kept it in its place. The upper edge was nailed, and otherwise secured along the line of the plankshеer. Extra pumps were rigged down all her hatchways and manned by gangs, who kept them going without intermission, and in five hours she floated and became upright. In three days from the time Captain McKay commenced operations the ship was ready to have her cargo discharged. The Sidney *Herald* speaks in high terms of this feat of ship-raising. Captain McKay raised the clipper ship *Great Republic* in the same manner, after she had been scuttled to save her hull from destruction by fire while lying at one of the docks of this port (New York), several years ago.

The British and American Navies.

The whole force of the British navy numbers 431 steam vessels and 182 sailing vessels. This would make a total of 613 actual war vessels, without including the large number of transports and other ships that could, at short notice, be converted into men-of-war. The fleet would carry 15,000 guns, and some 84,000 seamen. The effective force of the American navy is 82 sailing ships, carrying 847 guns, and 164 steamships, carrying 1,055 guns. The Secretary of the Navy makes the whole effective force 264 vessels, 2,557 guns, and about 23,000 seamen; but he includes in his list receiving ships, and ships of the line that have been on the stocks since 1818. The House of Representatives has passed a bill authorizing the construction of twenty iron-clad gunboats to be built by contract or otherwise as the Secretary of the Navy may deem best for the public interest.

A Wooden Mother.

We have heard of wooden nutmegs, wooden hams, horn gun-flints, wooden oats, and wooden clocks, but what infusion of the Yankee ever tinctured a John Bull to invent a wooden *mother!* The following, by a correspondent of the *Mark Lane Express*, describes the new invention.

A fine sow, having twelve sucking pigs, belonging to a pork merchant in Monkwearmouth was taken ill, and died suddenly. The proprietor who is an ingenious character, set to work and formed a rough model of a sow in wood, being hollow in the center, the abdomen being furnished with twelve teats, cleverly formed of raw hide. The interior of the model is kept filled with milk and the whole of the young pigs suck from the teats of this singularly looking wooden sow, and all are thriving well.

The reserve fleet at Portsmouth, England, consists of eight line-of-battle ships, six frigates, four corvettes, and twelve sloops, armed with 1861 guns, and propelled by engines of 13,942 horse power. This does not include the *Black Prince*, which is nearly ready.