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Sharpening Edged Tools.

"It has long been known that the simplest method of sharpening a razor is to put it for half an hour in water to which has been added one-twentieth of its weight of muriatic or sulphuric acid, then wipe it off, and after a few hours set it on a hone. The acid here supplies the place of a whetstone, by corroding the whole surface uniformly, so that nothing further but a smooth polish is necessary. The process never injures good blades, while badly hardened ones are frequently improved by it, although the cause of such improvement remains unexplained.

Of late, this process has been applied to many other cutting implements. The workman, at the beginning of his noon spell, or when he leaves off in the evening, moistens the blades of his tools with water acidified as above, the cost of which is almost nothing This saves the consumption of time and labor in whetting, which moreover speedily wears out the blades. The mode of sharpening here indicated would be found especially advantageous for sickles and scythes."

[The above appeared in the *National Intelligencer*, translated from a German scientific journal. It may be a good recipe, but we cannot, for the life of us, see into its philosophy. We can understand how the dilute sulphuric acid will combine with some of the metal, and reduce it to an oxyd, but as it will seize upon the edge of the tool more readily than any other part, how then can it sharpen the edge by biting or eating it off. Dilute sulphuric acid is used in all our iron foundries for eating off the scale and reducing the metal of castings.

To Extract Grease from Cloth.

The following is infallible:—To sixteen ounces of rectified spirits of wine add ten grains of carbonate of potash (pure,) half an ounce of essential oil of bergamot, and one ounce of sulphuric ether; mix, and keep in a glass-stoppered bottle. Apply with a piece of sponge, soaking the cloth thoroughly when the grease is not recent. The mixture emits a peculiarly fragrant odor, and being a fluid soap, chemically composed, will be found a perfect solvent of oily matter.—[Exchange.

[The above is a good receipt for the purpose stated; of this we judge from the nature of the substances of which it is composed. A cheaper fluid for the same purpose, and one that will answer equally as well, may be made of an ounce of liquid ammonia and four ounces of alcohol mixed with an equal quantity of water.

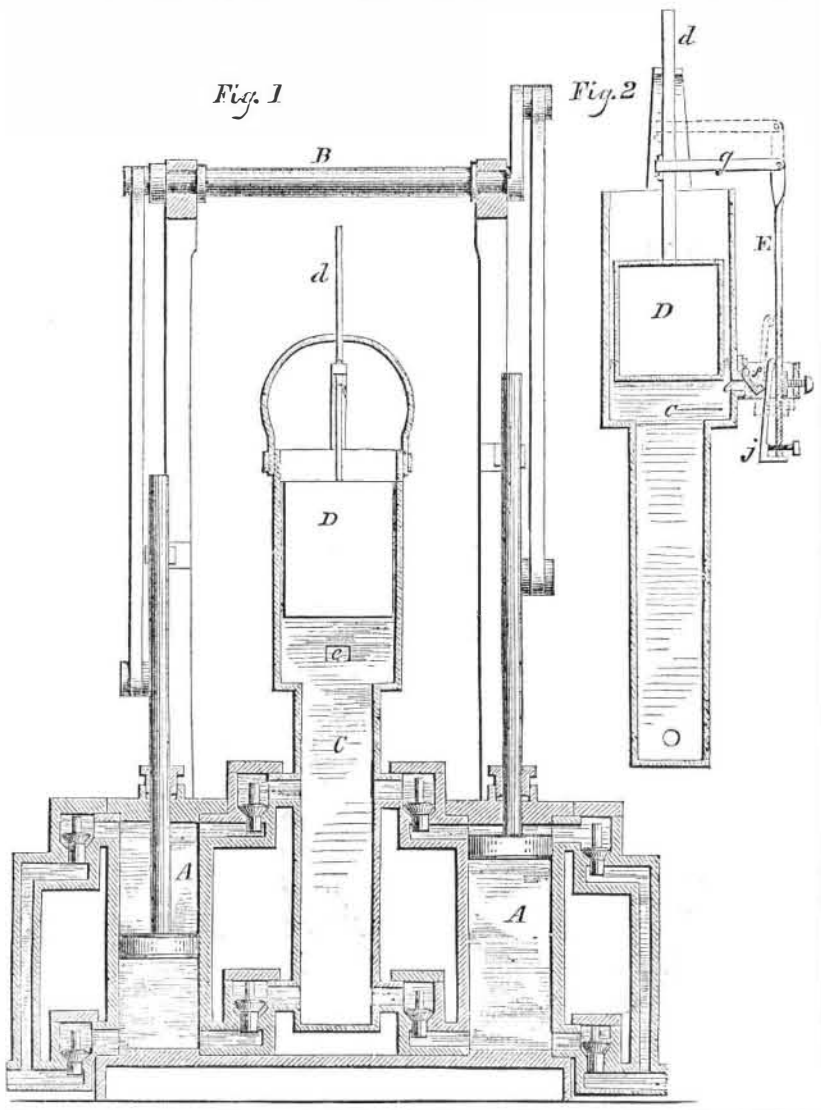
Ballooning Extraordinary.

Harvey Moore, of Lawrence Co., Ohio, claims to have discovered a principle by which direction can be given to an air-car, and its speed accelerated or retarded at the will of the engineer or pilot who may take charge of it, and without the use of ballast or waste of gas in the ascent or descent.—[Exc.

[Will he demonstrate his discovery to us?

24,000 bales of cotton were recently sold in New Orleans in one day.

NEW GOVERNOR FOR MARINE STEAM ENGINES.



Regulators of some sort are considered almost indispensable to the proper working of stationary steam engines. Their office is to graduate the quantity of steam admitted to the cylinder, according to the work required, at each movement, to be done. For example, when an engine is set to driving a number of different machines, some of them, perhaps unexpectedly break down and stop; less power will be required to drive those that remain in operation, and the governor accordingly shuts off a part of the steam; if this were not done the engine would be jerked or strained by the immediate increase in its velocity, and finally become broken. On the other hand, where the work to be done is suddenly increased, more steam will be required, and the governor must instantly open the throttle valve and let it on; otherwise the engine and machinery will come to a dead stop. The governor, in effect, then, is an automatic engineer, having charge of the speed of the machine, under iron bonds, not to allow it to go either too fast or too slow; it exercises an incessant supervision, requires no watching, and never becomes tired or sleepy. Governors are just as necessary for the engines used in sea navigation as for stationary machines, but they have not, as yet, been introduced on steam vessels because no suitable regulating apparatus has been introduced. Marine engines are therefore required to be built excessively strong and massive, in order to withstand the injurious effects of irregular movement; in very rough weather it is generally necessary to run them at a low speed.

The common governor consists of a spindle furnished with swinging weighted balls; its operation is well understood; it must always stand perfectly plumb, else it fails to be of service; therefore it is of no use on board of steamers.

The marine governor herewith illustrated is intended to supply the want to which we have alluded; it is the invention of Mr. Henry Webster, of Beetown, Wis., and was patented June 5th, 1855.

The nature of the improvement consists in the employment of a water well, which is kept constantly filled with water by means of pumps operated by the engine; said well contains a float, which is connected with the throttle valve; when the water in the well falls or rises beyond a certain level, the float moves accordingly, operates the valve, and lets on or shuts off the steam.

In fig. 1, which is a side sectional view, the pump cylinders are indicated by A; the pumps are of the ordinary construction, and are operated by the rocking shaft, B; C is the water well, and D the float; *d* is the connecting rod between the float and throttle valve; *e* is an escape aperture in the well, which determines the water level; when the engine works too quick, the pumps throw up water faster than it can escape through the aperture, *e*, and consequently the float rises and shuts off steam; when the engine moves too slow, less water is pumped up and the float falls, opens the throttle and lets on steam.

Fig. 2 is a cross section of the water well, and gives a side view of the aperture, *e*, with other appurtenances; *f* is a valve covering the aperture, *e*; *j* is a wedge attached to the sliding rod, E, which moves up and down with the float, being fastened to the latter by means of the strap, *g*; when the rod, E, rises, it brings the wedge, *j*, against valve *f*, and almost closes the aperture, *e*; the water escape being thus nearly cut off, the well fills more rapidly, and the rise of the float is hastened; the object of the valve, *f*, and its immediate connections, are to render the float sensitive and quick in its movements; this is a very excellent feature of the invention. Set screws are provided which adjust the inclination of wedge, *j*, and the consequent throw of valve, *f*.

The subject of marine governors is important. The present improvement is one of simplicity and apparent excellence; we commend it to the careful examination of engineers, and and others interested in such matters.

Further information respecting this patent can be had by addressing the inventor.

La Diorophe.

This is the graceful title of a very finely-built and ingeniously arranged carriage manufactured by Rock & Bro., of Hasting, England, and exhibited at the Paris Exhibition.

It combined the advantages of three distinct vehicles, viz., a close carriage, a barouche, or half-headed carriage, and an entirely open carriage, thus adapting it to all climates and seasons.

The principle of its construction is very simple, and there is not much danger of its getting out of order, nor can any mistake be easily made in changing it from one form to another—which operation is accomplished in a few minutes with great ease

An eye or ring is fixed in the roof of the close carriage, and made to drop into a recess out of sight, when not wanted. When the change is to be made, a hook attached to a cord passing over pullies fixed to the ceiling of coach-house is passed into the ring, and the head being balanced by a counterpoise at the opposite end of the cord, is raised with the utmost facility, and remains suspended until wanted again. A similar arrangement is used for the barouche head, and thus one person may effect all the changes, however large the carriage may be. Its economy is evident from the fact that it costs but little more than an ordinary carriage, although it possesses so many additional advantages.

Lubricating Oil.

To the advertisement of Mr. Pease in another column we would refer our readers who have occasion to use oil for machinery. We have seen most flattering certificates from establishments that have used this oil, and it is pronounced by all a valuable lubricator.

Lecture on the Gulf Stream.

Prof. Bache, Superintendent of the Coast Survey, delivered a lecture in the University Chapel, this city, on the evening of the 17th inst., on the above subject. The Chapel was crowded, and the lecture was an able one. In the course of his lecture he said: "The value of the discoveries which had recently been made by Prof Maury and others, in reference to the current of the Gulf Stream was not to be predicted. It would be estimated shortly in the history of our navigntion."

Lecture on Light.

Prof. R. Grant delivered a lecture in the Tabernacle, this city, on the evening of the 17th inst., and exhibed his calcium light for lighthouses. This is an improvement on what is called the "Drummond Light," viz.: the burning of two gases, oxygen and hydrogen, on a piece of lime.

New Use for Gutta Percha.

The model of an ingenious improvement in steam-engines, lately presented at our office to be patented, was composed of gutta percha. The maker informed us that the substance was very easily worked into the desired shape. For many kinds of models it appears to be a very convenient and time-saving material.

It is again reported that coal has been found at San Diego, in California. We hope so; but as such reports have been circulated a number of times, we wait for a sample to convince us of the reality of such a discovery.