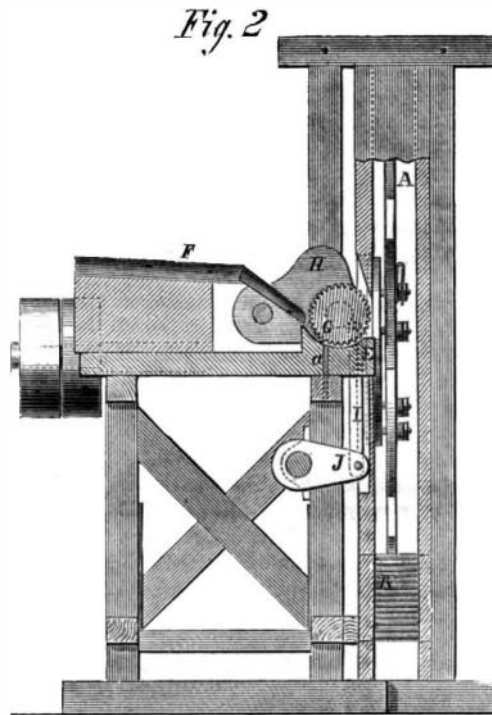
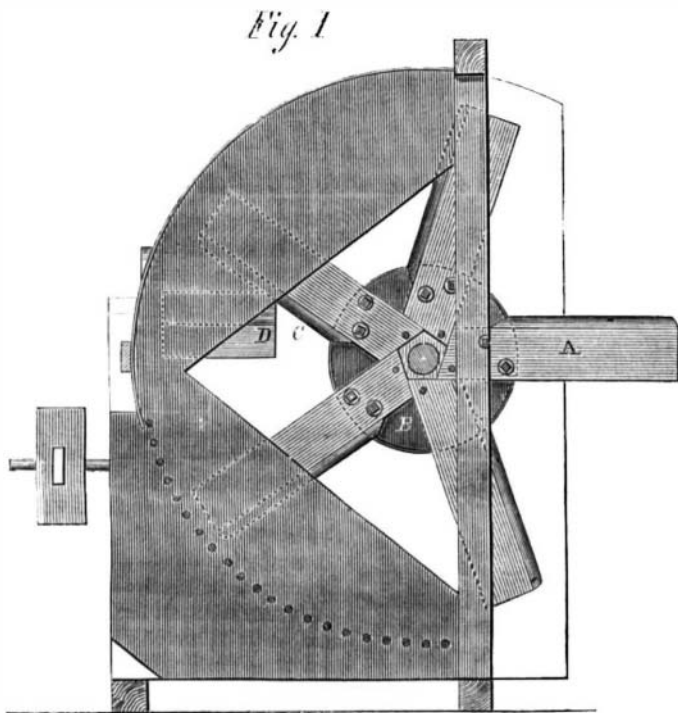


**Improved Flax Dresser.**

This machine is intended to clean and dress tangled flax and render it free from the shoove or wooden coating in which it is cased, so as to fit it for working. Fig. 1 represents an end view of the machine and fig. 2 a side view. In the first figure a five armed apparatus, A, is shown attached to a disk, B. These arms have scutching blades, C, bolted on them in such a way that they can be adjusted at will to work close to, or farther from, the dressing board, D. This detail is shown in fig. 2, at E. The flax is laid on a trough, F, and fed to the scutching knives by the roller, G. This roller is set in a bell crank, H, which connects by means of a link, I, with the crank,

**M'BRIDE'S FLAX DRESSER.**

J, below; a counterbalance on the shaft of this crank serves to regulate the pressure on the flax to be dressed, so that it is held firmly and yet fed regularly by the rollers until the scutching knives have removed the shoove. These knives work close to the dressing board, D, and are made self-adjusting by the springs at their backs so that no matter whether the mass to be dressed is thick or thin the office is properly performed. The disk, B, carrying the arms the scutching blades are on can also be set to dress a given amount of fiber. This is done by means of set screws and collars on the shaft the disk is secured to. There is also a screw stop at, a, which regulates the descent of the feed roller and prevents it from coming in contact with the dressing board. The woody portions driven off by the scutching blades fall through at the riddle, K, or sieve portion of the casing in which the arms revolve.

The combination of these several parts, it is asserted, produces an efficient and economical machine for the purpose. It was patented through the Scientific American Patent Office on Nov. 29, 1864. For further information address the patentee, William C. McBride, at Raritan, N. J.

**THE METRIC SYSTEM.**

When we commenced advocating the adoption of the French system of weights and measures, we were not aware that several co-laborers were zealously engaged in the same work. We have just received from H. E. Johnson, Esq., of Baltimore, Md., a circular published at the joint expense of himself and B. S. Dexter, of Tioga County, N. Y., urging upon Congress the legalization of the metric system.

From this circular we make the following extracts:—"The metric system is used not only in France and her colonies, but several other European nations have adopted it. It is legally established throughout Italy, with the exception of Rome and Venice. Two errors have been committed in Europe, which it is hoped will be rectified and never repeated. In one instance a decimal system has been adopted, founded on a metric system, but not identical with it, and in some instances the names have been, and perhaps

still are, entirely unlike the French names. It can not be too firmly impressed upon the public mind that, in order to reap the full benefit of a universal decimal system, there should be, in effect, but one measure of length, one of area, one of capacity, and but one weight, and that the corresponding names in all languages should be nearly alike.

"How can this system be made universal? Every nation should make it the Government standard. The gram should be the postal weight throughout the world. Other nations and states should follow the example of Connecticut, and introduce the system into their schools. Let the steps taken be energetic and efficient, for while men buy and sell by different

**Tar Making in New Hampshire.**

From Effingham, along the northeastern shore of Ossipee Lake (or the Great Pond, as it is locally called), and stretching away toward Conway, there are thousands of acres of pine plains, the timber on some portions having been cut. It is from the roots or stumps that the tar is extracted by a company locally organized for the purpose. The largest timber of these "cut downs" has been cut long enough to have all the sap-wood rotted away, leaving nothing but the clear wood. The Rochester Courier says, speaking of a spot near the village of Freedom:

"Here they set their stump-pullers at work, pulling from fifty to one hundred stumps each, daily, accord-

ing to the difficulties encountered. These stumps are hauled to Freedom village, where they are cut and split into pieces about the size of very fine stove wood, and placed in what is called a basket. The basket is a wrought iron cylinder, punched full of holes of about three-fourths of an inch in diameter, and holding half a cord. This basket is taken by a crane and placed in a retort made to receive it. A round top cast-iron cover is then fitted on tight, with a pipe from the center, which connects with a coil of pipe in a condenser.

"The long names of the French system constitute an objection which can be easily avoided. They can be abbreviated so that the units will be of one syllable, and the derivatives of two, and yet bearing sufficient resemblance to the French terms to be easily identified. *Metre, litre and are* should be *met, lit, and ar*. *Deka, hekto, and kilo*, should be *Dek, hek, and kil*. *Deci, centi, and milli*, should be *des, cen, and mil*. Then *hektometre* (100 meters), would be *hekmet, centimetre*, (1-100 meter), would be *cenmet*. *Hektolitre*, (100 liters), would be *heklit, and decilitre* (1-10 of a liter) would be *deslit*.

"As the metric system is entirely decimal no reduction is required, and there is substantially but one measure of length, the *met*, one of the area, the *ar*, one of capacity or cubic measure, the *lit*, and one weight, the *gram*. It is not necessary to point out the irregularities and inconveniences of our present system. How many of the readers of this article can recite our tables of weights and measures without making several mistakes? How many can tell, without calculating, how many feet are in a mile, or how many cubic inches in a gallon?

"It requires but little study to understand the meaning of the terms, *met, ar, lit* and *gram* and but little mental exertion to remember that *dek, hek, kil*, indicate respectively 10, 100, 1,000, and *des, cen, and mil*, 1-10, 1-100, and 1-1000. When these simple facts are learned the metric system is, for all practical purposes, mastered."

If there is any one in this city who takes sufficient interest in the reform to circulate petitions to Congress, Mr. Johnson would like to hear from him.

**REAL AND IDEAL**—Is the title of a volume of poems dedicated to Prof. Longfellow, by John W. Montclair. There are several meritorious translations from Heine and other German poets; also some excellent original productions by the author. The book is published by Frederick Leyboldt, of Philadelphia, and is sold by Hurd & Houghton, of New York city.

"The gas and steam passing off from the top of the retort, and through the condenser, comes forth from a barrel in the shape of an acid (which is worth ten cents a gallon among the calico printers, but is here thrown away,) and a red oil. The red oil is then passed through a still, and gives about half its bulk in spirits of turpentine. The other half is thin tar, which is mixed with that which comes from the retort. From the bottom of the retort the pitch which is 'tried out,' of the pitch wood by the heat applied to it, comes forth in the shape of thick tar. There are eight or ten retorts, which bring forth forty barrels of tar a week, and seven or eight barrels of spirits of turpentine.

"A cord of pitch wood gives about three barrels of tar and eighteen gallons of spirits, besides twice that amount of acid. The company have stumps enough dug to keep the factory running until until they can dig again in the spring; and it is said that there are stumps enough left on the plains to last the company for three or four years. The tar is worth about \$14 per barrel and the turpentine about \$250. Who but Yankees would have brought down the price of tar and turpentine by digging pitch wood stumps for its manufacture?"

**TO PETRIFY WOODEN OBJECTS.**—Take equal quantities of gem-salt, rock-alum, white vinegar, chalk, and pebbles powdered. Mix all these ingredients; there will happen an ebullition. If, after it has ceased, you throw some wooden objects into this liquid, and leave them soaking for four or five days, they will be transformed into petrifications.