

### To Preserve Woodwork.

Take boiled oil and finely powdered charcoal; mix to the consistence of paint, and give the wood-work two or three coats with it. This composition is well adapted for casks, water-spouts, &c.

### To produce Figures on Wood.

Slack some lime in stale wine. Dip a brush in it, and form on the wood figures to suit your fancy. When dry, rub it well with a rind of pork.

### Heating Power of various Substances.

*Of the Heating Power of various Combustible Substances, exhibiting the utmost quantity of Water evaporated by the given Weights, and the smallest quantity of Air capable of producing total Combustion. Dr. URE.*

Species of Combustible.	Pounds of water which a pound can heat from 0° to 212°.	Pounds of boiling water evaporated by 1 pound.	Weight of atmospheric air at 32° to burn 1 pound.
Perfectly dry wood .....	35-00	6-86	5-96
Wood in its ordinary state .....	26-00	4-72	4-47
Wood charcoal .....	73-00	13-27	11-46
Pit coal .....	60-00	10-90	9-26
Coke .....	65-00	11-81	11-46
Turf .....	30-00	5-45	4-60
Turf charcoal .....	64-00	11-63	9-86
Carburetted hydrogen gas. ....	76-00	13-81	14-58
Oil .....	78-00	14-18	15-00
Wax .....			
Tallow .....			
Alcohol of the shops .....	52-60	9-56	11-60

### Another Solvent of Textile Fibres.

A solution of copper in ammonia is said to be a solvent not only for lignine, and thus for vegetable fibres generally, but also for animal fibres, as wool and silk; forming elastic water-proof substances, and capable of so penetrating one kind of fibre with a solution of another, as to unite certain of their qualities: for example, enabling cotton to receive and retain the same dyes with woollen, and with a similar tenacity.

### Small Savings.

The parings of a bushel of juicy apples are said to yield a quart of cider by the aid of a hand-press. The honey that wastes its sweetness on the air around an acre of buckwheat in blossom, can be saved to the amount of fourteen pounds per day, according to the estimate of a German investigator. Rags can be saved to the value of \$60,000,000, as shown by the paper statistics of this country alone.—*Scientific American.*

### Coal Oils as Lubricators.

The American *Artizan* says: it is stated that American manufacturers, especially those employing fine machinery, have found by a thorough system of tests, that coal oils as lubricators are superior to sperm oils in the ratio of 100 to 84, a discovery extremely satisfactory from the great

difficulty heretofore of obtaining regularly a grade of sperm or whale oil of uniform density free of gum and foreign mixture.

### Tempering Steel.

At a meeting of the Polytechnic Association of the American Institute, Mr. Muller answered a question which was proposed by himself some time ago. How to harden small pieces of steel so as to retain a bright color corresponding with the degree of temper without spots of oxydation. The pieces are put in a box with Rose's metal; the latter is molten around them and the whole heated red hot, then cooled off by pouring water into the box. In tempering the pieces the Rose's metal is molten off again, and the composition of the latter can be chosen so that the melting point corresponds with the tempering temperature that was originally wanted.

### To clean Marble Fire-places.

Marble fire-places should not be washed with suds; it will in time destroy the polish. After the dust is wiped off, rub the spots with a nice oiled cloth, then rub dry with a soft rag.—*American Artizan.*

### Interior of Molds.

M. Ganz, of Ofen, in Hungary, coats the interior of his molds, which should be of iron, with a paste of finely-powdered antimony and alcohol, and then dries them at a temperature of 100 degs. Cent. The iron castings are thus covered with an extremely hard coating of the alloy of antimony and iron. *Ibid.*

## Statistical Information.

### The Quebec Relief Fund.

A Lower Canadian Journal publishes the following list of places and their contributions to the fund in aid of the sufferers by the recent calamitous fire in Quebec, by which so many thousands of persons were rendered homeless:—

Quebec .....	\$ 56,136
Montreal .....	14,238
Three Rivers.....	205
Ottawa .....	1,765
Upper Canada .....	8,914
Rural Districts.....	17,002
United States .....	19,505
Prince Edward Island.....	1,172
New Brunswick .....	12,049
Nova Scotia .....	11,042
England and Scotland .....	210,960
France .....	934
Ireland ..	8,634
Germany .....	14
The Canadian Government .....	50,000

Total ..... \$412,570

Besides the above there were contributed 12,000 pairs of blankets, and large quantities of grain; provisions, and general merchandize.