

(42) A. D. B. asks: How can I prepare sperm oil so as to prevent its becoming gummy and sticky when used on light machinery?

(41) W. W. B. asks: 1. How can I renovate a Philadelphia pressed brick front, which has become soiled with the weather?

(43) J. M. McC. asks: How can I make marking ink of the following colors, violet, blue, green, and black?

(44) G. W. L. asks: What are the igniting or explosive parts of torpedoes made of?

(45) J. M. says: I put a coat of boiled linseed oil on some woodwork wanting a hard surface, but it will not get hard.

(46) J. H. E. says: 1. We received some sheet zinc some time since, that has large white spots on it.

(47) W. K. J. asks: How can I harden paraffin sufficiently to enable me to turn it in a lathe?

(48) H. E. E. says: 1. In the case of the prisoners who got away from the working gang, and took charge of a passing freight train,

(49) J. M. R. asks: How can I preserve celery through winter? A. Place it in the ground so deep that the frost will not touch it,

(50) C. M. & S. say: If there is one pump with piston and suction pipe having the same area, say 4 square inches each,

(51) O. B. & D. say: We would like you to tell us what size of cylinder of engine will be required to tongue and groove 6,000 feet of 6 inch yellow pine flooring,

MINERALS, ETC.—Specimens have been received from the following correspondents, and examined, with the results stated:

G. M. A.—The globular formation is marcasite white iron pyrites. The other mineral contain silica, alumina, potassa, soda, magnesia, iron, carbon, and water.

M. & O. say: We have been heating a die which was faced with steel 1/2 inch thick, on iron

The steel became of a bright red, and the iron was still perfectly black, forming a distinct line around the die at point of welding.

COMMUNICATIONS RECEIVED. The Editor of the SCIENTIFIC AMERICAN acknowledges, with much pleasure, the receipt of original papers and contributions upon the following subjects:

- On the Potato Bug. By P. Y.
On Cider. By A. P.
On the Keely Motor. By S. B.
On the Origin of Life. By J. B. P.
On Meteorology. By J. H. T.

Also inquiries and answers from the following: W. A. S.—J. H.—C. H. P.—O. P. S.—J. D. B.—T. N. M.—S.—O. B.—W. A. C.—M. N.—A. B. C.—A. T. W.—J. W.

HINTS TO CORRESPONDENTS.

Correspondents whose inquiries fail to appear should repeat them. If not then published, they may conclude that, for good reasons, the Editor declines them.

Enquiries relating to patents, or to the patentability of inventions, assignments, etc., will not be published here.

Hundreds of inquiries analogous to the following are sent: "Who makes hand organs?"

Who sells the best boiler incrustation preventive? Who sells the best covering for boilers and steam pipes? Who sells stills, suitable for distilling oil of sassafras?

Who sells hand pumps? Who sells mica in plates? Who sells boilers made of corrugated iron? Who sells bicycles? Who sells gas blowpipe nozzles? Who sells machines for steaming feathers?

INDEX OF INVENTIONS FOR WHICH Letters Patent of the United States were Granted in the Week ending July 13, 1875.

Acids, carrier for, F. H. Kalbfleisch..... 165,590
Acids, concentrating sulphuric, G. A. Hagemann 165,567
Alarms, circuit for electric, G. C. Maynard..... 165,602

Acids, carrier for, F. H. Kalbfleisch..... 165,590
Acids, concentrating sulphuric, G. A. Hagemann 165,567
Alarms, circuit for electric, G. C. Maynard..... 165,602
Aquarium, J. Wenmackers..... 165,639
Auger handle, F. Wertz..... 165,522

Coal chute, W. M. Thompson..... 165,632
Coal scuttle, R. M. Steele..... 165,515
Cooler, lard, F. E. Rockstroh..... 165,617
Cooler, liquid, B. F. Shaw..... 165,480
Corn stalks, cutting, T. O'Bryan..... 165,496

Skiving and splitting belts, J. W. Fifield..... 165,412
Sleighs, lance for propelling, A. Corbett..... 165,547
Sleighs, runner for, H. Smith..... 165,624
Snow plow, E. G. Graves..... 165,563

DESIGNS PATENTED.

8,476 to 8,480.—CARPETS.—J. Webster, Philadelphia, Pa.
8,481.—LAMP PEDESTALS.—N. Bradley, West Meriden, Ct.
8,482.—PAPER WEIGHT.—H. Lee, New York city.

SCHEDULE OF PATENT FEES.

On each caveat..... \$10
On each Trade mark..... \$25
On filing each application for a Patent (17 years)..... \$15

CANADIAN PATENTS.

LIST OF PATENTS GRANTED IN CANADA, July 8 to 14, 1875.

4,956.—J. Collins, Guelph, Ont. Feed cutter. July 8, 1875.
4,957.—J. P. Connell, Kensington, Conn., U. S. Door bell. July 8, 1875.
4,958.—D. Whiteside, Toronto, Ont. Carpet cleaning machine. July 8, 1875.