

madder plant, the coloring principle of which is called 'alizerin'. But in 1868 two German chemists, Graebe and Libermann, discovered a method of making artificial alizerin from the tar-coal product anthracene—a discovery which has completely revolutionized the dyeing and calico-printing industries. The excitement in the dyeing and coal-tar industries was immense. Anthracene, which formerly was considered a useless by-product, and sold at a few shillings a ton and utilized as a cart grease, immediately rose in price, and shortly after this discovery commanded something like \$500 a ton.

"This artificial alizerin has now entirely

superseded the natural product from the madder plant; and the cultivation of madder, which was once a great and flourishing industry, has now dwindled away, and in the course of a few years will probably be altogether extinct.

"Phenol, or carbolic acid, discovered by Mitscherlich in 1834, being one of the most powerful antiseptics and disinfectants, purifies the atmosphere from noxious gases and destroys the infectious germs of disease. Its valuable antiseptic properties have been introduced into surgery with great success by the present Lord Lister, president of the Royal Society. From carbolic acid is ob-

tained a valuable series of coloring matters, ranging from a beautiful yellow, i.e., picric acid, to reds, oranges, browns and many other colors.

"The wonderful substance 'aniline' is found only in small quantities in coal tar, and its production on a sufficiently large scale for industrial purposes only became possible when Zinin, in 1842, showed it could be made from nitro-benzene or the 'artificial oil of bitter almonds,' already mentioned. All the aniline for the production of the innumerable beautiful colors is obtained from this derivative of benzene. In 1853, Dr. William H. Perkin, then a young man of eighteen, was engaged experimenting on aniline with a view to making an artificial quinine. Though his experiments in that direction were a failure, they were the means of his making the great discovery of the first aniline color, namely, mauve, and from these experiments has arisen a world-wide industry.

"In 1858, Prof. A.W. Hofmann, discovered the magnificent color magenta, or aniline red, one of the most brilliant colors known

"Capitol" Cylinder

"RENOWN"
ENGINE

"ATLANTIC" RED

RELIABLE WELL-KNOWN BRANDS.

ALL ORDERS PROMPTLY FILLED

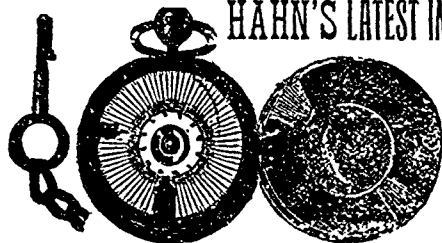
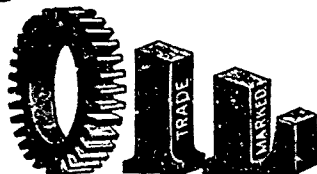
THE...

QUEEN CITY OIL CO.

LIMITED

SAMUEL ROGERS, President.

TORONTO, CANADA.



HAHN'S LATEST IMPROVED WATCHMAN'S TIME DETECTOR

This Clock is adapted for six or twelve stations, and the keys are all different, ranging from 1 to 6, and 1 to 12, instead of as in the old style Time Detectors, which mark either by holes or an impression on the dial, being the same for all stations.

For Circulars, prices and further information address

A. NANTZ & CO., Room No. 45, Graham Building, 127 Duane St. NEW YORK

This Clock received the First Prize at World's Fair.



SEND FOR CATALOGUE AND PRICE LIST

The Diamond Machine & Screw Co. Manufacturers of TORONTO. Limited.

MACHINE SCREWS and BICYCLE PARTS OF EVERY DESCRIPTION

The Canadian Canoe Co., Limited, P.O. BOX 107, PETERBOROUGH, ONT.

Manufacturers of all kinds of

CANOES AND SKIFFS

Canoes for Paddling, Sailing, Rowing and Prospecting. Skiffs for Rowing and Sailing.

A FULL STOCK OF PADDLES, OARS, FITTINGS, ETC.

Write for Catalogue J.

Correspondence Solicited.

When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

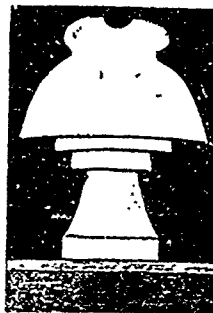
ADDRESSES furnished
ENVELOPES and CIRCULARS

addressed and mailed

Reliable Type-written lists of names furnished at reasonable rates, from OUR OWN PUBLICATIONS, embracing all the Professions, Trades, Industries, etc., throughout the WORLD, covering every Commercial Centre, in EUROPE, ASIA, AFRICA, and AMERICA. MANY of these lists are SPECIAL; that is, can be had only from us, or through our publications; on these lists a REBATE of full amount paid, including postage, will be allowed on all envelopes returned to us post marked "Can't find."

KELLY'S DIRECTORIES, Limited
28 VICTORIA St., Toronto, ONT.

..HIGH..
CURRENT INSULATORS



WILL
STAND
ANY
TEST.

Patent sustained by United States Patent Offices.

AGENTS WANTED IN CANADA.

Write for Samples and Particulars.

F. M. LOCKE, VICTOR, N.Y.