

**JOHN J. KELLER & CO.**104 and 106 MURRAY ST.  
NEW YORK

220 Church St., Philadelphia.

135 Pearl Street, Boston.

**Aniline Colors,  
Dyewood Extracts,  
Sumac and  
Nutmeg Extracts.****FAST COLORS** for Wool Dyeing,  
One Dip Cotton Colors, Novelties  
and Specialties for Calico  
Printing.

MANUFACTURED BY

**JOHN R. GEIGY & CO.**

BASLE, SWITZERLAND

outside. These may be worked independently or together, and supply can be changed from one tank to the other without letting the fire out. Indicating dials are fitted to each tank, which show the exact quantity of oil at all times. The oil consumption when train is fully loaded is from half to one gallon according to the condition of the roads, and can be bought at prices varying from 3½d. to 4d. per gallon in London. All pipes are of solid drawn copper tubing, and are connected by means of the company's patent joint, which can be repaired in about five to ten minutes if necessary.

The steering is controlled by means of a steel lever or tiller, placed in a convenient position for the driver, and is connected to the pivoted axles by suitable steel rods; the vehicle is at all times under the perfect control of the driver.

A powerful steam brake is fitted to the van, which is capable of holding the rear wheels fast at full speed.

The train in all respects is built according to the locomotives on Highways Act of 1896, and to the Local Government Board's Rules and Regulations. The van, unladen (without fuel and water), weighs one ton nineteen cwt.

The omnibus or passenger car weighs

twenty-five cwt., and is fitted with powerful tramcar type of brake, and is worked by the conductor on the rear platform. The total of the train fully loaded is about eight tons, and will climb grades of ten per cent. with ease, at the limited speed of six miles per hour. The van may be run singly at the rate of eight miles per hour, and is capable of climbing grades of twenty per cent fully loaded. We may say that this auto-mobile train was designed by and built under the immediate superintendence of Mr. H. A. House, the company's manager, who is to be congratulated on having produced an exceedingly workman-like job.

The Liquid Fuel Engineering Company are at present very busy at their works, East Coves, Isle of Wight, building tradesmen's vans to carry one and a-half to two tons, also steam luries to carry two and a-half to four tons, for prominent London firms; and they are also building a steam wagonette to carry seven people, for a private gentleman.—Practical Engineer.

**AN EARLY RISING PERSUADER.**

In devising an apparatus that will absolutely compel my arising mornings at a regular set time, I believe that I have overcome a difficulty which has never been successfully surmounted before. To be sure we have heard stories and verses of automatic folding beds which, after forcibly ejecting their occupants, snap shut and are only released after the time lock has run down; but it is more often we hear of actual cases where such affairs snap shut without any pretense at delivering their occupants in one piece out into the ambient atmosphere.

Some time ago, after considerable complaint about my failing to respond to gentle entreaties to "get up," mornings, I purchased one of the ordinary electric alarm clocks, which close a bell circuit at any time set and which, with battery and bell, make it necessary for one to arouse sufficiently to throw off the switch.

For a time—till the novelty wore off—this worked very well, and I was declared a "model man," so far as getting up mornings was concerned. But then, notwithstanding that the clock was advertised "a good time keeper," it was very severely affected by changes in temperature, losing or gaining from twenty to thirty minutes as the weather ordained. Besides it had to be wound every day, and when one comes home in the wee hours he hardly feels like giving fourteen screws to an arrangement which is to awaken him in a few hours.

With cold weather came the temptation to crawl back to bed again and have another nap. There is some non-explainable delight, a grim satisfaction, in a few minutes' sleep when you know you are sleeping. Just the dim consciousness that you should be up and around, mingled with the comfort of your situation, that makes you enjoy your stolen nap far more than any other portion of your night's sleep. After once indulging, it is really a task to break off from the habit. It didn't take long to make the "electric alarm clock" obsolete.

My next move was to place an automatic drop, away over in the corner of my room furthest away from the bed, and provide the kitchen with a push button. Touching the latter dropped the drop, which in turn threw into circuit a four-inch bell over the headboard of the bedstead. To stop the bell ringing I must lift the drop, and if I chose

**Hamilton Blast Furnace Co.**

HAMILTON, - - ONTARIO

(Limited)

Manufacturers of

**HIGH GRADE  
PIG IRON****The McEACHREN Lumber Dry Kilns**

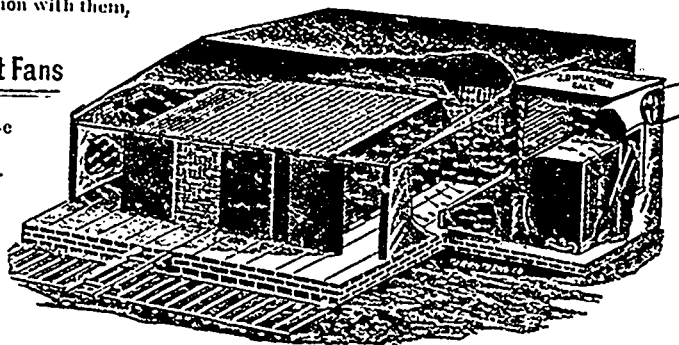
ARE THE BEST

They are quick-drying.  
Economical with Steam  
and it requires less power to  
drive our fan in connection with them,

**Steel-plate Exhaust Fans**

For removal of refuse  
from Wood-working  
and other machinery.

SEND  
FOR  
CATALOGUE.

**SECOND-HAND FANS AND HEATERS**

For Lumber Dry Kilns for sale at reasonable figures.

**McEACHREN HEATING AND VENTILATING CO.,**

GALT, ONTARIO.