



DETROIT Motor 190

The Smoothest Thing That Runs

Noise, Friction and Uncertainty reduced to a minimum. The result of a high standard of manufacturing—which means ever piece of metal tested—not by rule of thumb, but by scientific method on a testing machine built for the purpose.

From foundry to naer, the DETROIT AUTO-MARINE MOTO passes in its various stages under one organization head.

We are making 10,000 Auto-Marine Gasoline engin this year, not merely assembling parts made in various factories.

WE MANUFACTURE THE MOTOR COMPLETE AND GUARANTEE EVERY MOTOR WE MAKE 1½ H. P., \$33.15. Engine onl For stationary power purposes, we equip these engines with the Au

For stationary power purposes, we equip these engines with the A Adjustable Governor, at an addition of \$5-making one of the m satisfactory gasoline engines for power purposes but.

Write for Catalog describing Auto-Marine Mot 1 to 29 H. P. and Auto Adjustable Governor.

DETROIT AUTO-MARINE CO.



75 E. Congress St., Detroit, Mic F. G. Hall, Mgr., 95 Liberty Street, New Yor The Bourse, Philadelphia The only builders of Auto-Marine Engine in the World

JAGER Marine 4-Cycle Engines

Skillfully designed and well built. Single lever control, combining automatic arburettor with spark advance. Develops wide speed range and reliability under most trying conditions. Sizes 3 to 60 h. p. Send for catalog.

CHAS. J. JAGER CO. 281 Franklin, cor. Batterymarch St., Boston, Mass.

The Adirondack Mountains

Are now about the most central of all the great resorts. They have through Pullman sleeping cars from New York, Philadelphia, Boston, Buffalo and Niagara Falls via the



A night's ride takes you from any of these places to the center of the mountains in time for breakfast next

For a copy of "The Adirondack Mountains and How to Reach Them," which is No. 20 of the New York Central Lines' "Four-Track Series," containing a fine map of the Adirondack Mountains and adjacent territory, with useful information in regard to hotels, camps, lakes, rivers, etc., send a two-cent stamp to George H. Daniels, Manager General Advertising Department, Room 26, Grand Central Station, New York.

C. F. DALY Pass. Traffic Mgr. NEW YORK

W. J. LYNCH Pass. Traffic Mgr. CHICAGO



Anyone sending a sketch and description may nickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. HAMDBOOK on Patents sent free. Oldest agency for securing patents. Patents taken through Munn & Co. receive pecial notice, without charge, in the

Scientific American.

handsomely illustrated weekly. Largest cir-ulation of any scientific journal. Terms, \$3 a ear: four months, \$1. Sold by all newsdealers. MUNN & CO. 361 Broadway, New York Brench Office. 626 F St., Washington, D. C.

. 1		
•	Soda and baking powder, baking, Church &	50 0 0 0 :
	Dwight Co	52,292
•	Krete Pharmaceutical Co	52,455
	Krete Pharmaceutical Ce	52,381
	Spices and mustard. E. R. Durkee & Co	52,381
į į	Starch, laundry, New Orleans Coffee Co Steel, Crucible Steel Company of America.,	52,304
l	Steel, Crucible Steel Company of America.,	52.261
	52,260, Steel, Park Steel Co	$52,261 \\ 52,278$
l 1	Steel, Park Steel Co	52,279
ı	Steves and furnaces, F. & L. Kahn & Bres	52,330
	Stoves and furnaces, heating, Fiebeger Heat-	52,263
15	ing Co. Stoves and ranges, Lattimer-Williams Manu-	02,200
00	i iacturing Co	52,333
וטע	Sumac, gambier, •ak, and hemleck extracts, G. H. Leenard & Ce	50.404
	Supporders Dienous Supporder Co	52,464 52,371
	Suspenders, Pioneer Suspender Co Suspensory bandages and trusses, J. Ellwood	02,011
	Lee C•	52,422
	Syrup, Griggs, Cooper & Co Tea, Dolan Mercantile Co	52,32 6 52,514
	Thread, cetten, Clark Mile-End Speel Cetten	02,014
ļ	, C●	52,355
	Tobacco, chewing and smoking, Hoffman &	52,486
	Co. Tobacco, smoking and chewing, Gilbert, Son	52,40 0
		52,419
	Tenic for the regulation of the alimentary	50 451 1
- 1	Tonic for the regulation of the alimentary organs, Brand Brothers Co	52,451
	Richards	02,000
[Richards Toothache wax, O. F. Leonhardt Trunks, valises, and satchels, P. C. Murphy	52,457
del	Trunks, valises, and satchels, P. C. Murphy Trunk Co	52.368
6	Twine, Fulton Bag and Cotton Mills	52,482
v,	Trunk Co. Twine, Fulton Bag and Cotton Mills. Valves, blow-off, Lunkenbeimer Co. Velvets, A. L. Dreyfuss & Co.	52,336
	Washing machines ratery Ranhaw-Brammer	52,357
	Manufacturing Co.	52,437
ery	Water, lithia spring, Londonderry Lithia	50.004
- 1	Spring Water Co	52,334
OR	Washing machines, retary, Benbew-Brammer Manufacturing Ce. Water, lithia spring, Lendenderry Lithia Spring Water Co. Wheels, metallic rims for vehicle, Clincher Automobile Tire Manufacturers' Associa-	
nes		02,200
	Whisky, L. Kahn & Co	52,270 52,280
- 1	Whisky, Star Distillery Co. Whisky, Lang, Schenck & Co.	$52,280 \\ 52,334$
	Whicky Rhitanthal & Rickart	52.460
ıly	Whisky, Fairfax & Co	52,479
ıly	Whisky, w. Schlieffer W. W. & L. Co Whisky, Star Distillery Co	52,494 52,545
uto 20st	Whisky, Fairfax & Co. Whisky, W. Schneider W. W. & L. Co. Whisky, Star Distillery Co. Whisky, malt, S. Binswanger & Bro.	52,545 52,504
	Whisky, mait, S. Einswanger & Bro	52,522
tors	wine in bettles, white, Compania Vinicela	52,509
	Wire cloths and screens, W. S. Tyler Co	52,388
ch.	Wringers and the parts thereof, clothes,	50.400
rk	American Wringer Co	52,406
	Yarns, woolen, worsted, and mohair, Henry E. Frankenberg Co	52,443
es	,	

LABELS.	
'Ambresia Pure Checelate Wafers," for con- fectionery, Ambresia Checelate Co 'Checkern,' for a benden, L. C. Paschal 'Circleanum,'' for a cancer remedy, A. V.	$12,860 \\ 12,859$
"Clay-ola," for cigars, o. L. Schwenke Lithographic Co.	12,843
'El Scientifice,' for cigars, Schmidt & Co 'El Scientifice,' for cigars, O. L. Schwenke Lithographic Co. 'Elegant,' for flour, Pensacola Grocery Co. 'Greater Than King,' for cigars, B. Lyon. 'Indian,' for cocoa, Pennsylvania Chocolate	12,842 12,85 6 12,849
'Indian,' for cocea, Pennsylvania Checelate Co. 'Indian,' for checelate, Pennsylvania Checelate, Penns	12,852
Co. "Indian," for checelate, Pennsylvania Checelate Co	12,855 12,866 12,846
Little Victor," for cigars, A. Mertens Little Victor," for cigars, O. L. Schwenke	19 945
"Mashallah Coffee," for coffee, M. Horewitz 'Mentho Camph," for an ointment, M. G. Slocum Mercedes," for cigars, Schmidt & Co. "Nauvoo Brand Garments," for knitted com-	12,8 6 4 12,847
'Nauvee Brand Garments,' for knitted com- binatien union suits, Ensign Knitting Ce. 'Prime,'' for thread and cetten, I. J. Sil- verstein 'Red Seal Brand Medicine Drepper,'' for a	
medicine dropper, American Lithographic	12,867
'Red Seal Brand Medicine Dropper,'' for medicine droppers, American Lithe- graphic Co. 'Royal Cream for Shaving,'' for shaving	12,868
cream, Reval Cream Ce. St. Bernard Extract of Bark," for extract of bark, St. Bernard Medicine Co Star Baby Egg Matzeths," for biscuits, H. S. Levy	12,8 6 3
'Star Tea Matzoths,'' for biscuits, H. S. Levy 'The American Girl Skirt,'' for ladies',	12,858 12,857
misses', and children's skirts, American Skirt Manufacturing Co. "Turtle Egg Shampee," for a hair wash, A. K. Rex	12,8 7 0 12,8 6 2
'William Bend," for cigars, O. L. Schwenke Lithegraphic Co.	

PRINTS.

I ILIN, I.O.	
"A Tricorne," for millinery and straw hats,	
Gage Brothers & Co	1,642
hata Gage Brathers & Ca	1,643
"Black and White," for millinery and straw hats, Gage Brothers & Co	1 051
"Father of Waters." for flour. L. P. Hub-	1,651
bard	1,657
bard "Floral Effect," for millinery and straw hats, Gage Brothers & Co	1.650
"Musbroom Fashion," for millinery and straw	,
hats. Gage Brothers & Co	1,647
"Panama Sailor," for millinery and straw	1,649
hats, Gage Brothers & Co	•
hats, Gage Brothers & Co	1,644
straw hats. Gage Brothers & Co	1,639
'Plaid Trimmed,' for millinery and straw	1 000
hats, Gage Brothers & Co	1, 6 38
hats. Gage Brothers & Co	1,646
'Ribbon Streamers,'' for millinery and straw hats, Gage Brothers & Co	1,643
"Rose Garlanded," for millinery and straw	1,010
hats, Gage Brothers & Co	1,640
W Russell Card Co	1,659
W. Russell Card Co	•
celers, Gerstenderfer Bres	1,658
and petticeats. Singer Sewing Machine Co.	1,652
and petticeats, Singer Sewing Machine Co. 'The Singer Fashien Series,' for wedding	
gewns, Singer Sewing Machine Ce 'The Singer Fashien Series,' fer tailered	1,6 53
traveling costumes, Singer Sewing Ma-	
chine Co. 'The Singer Fashion Series,' for afternoon	1,6 54
gowns. Singer Sewing Machine Co	1,655
gowns, Singer Sewing Machine Co "The Singer Fashion Series," for shirt-waist	•
costumes, Singer Sewing Machine Co "Velvet-Box Plait," for millinery and straw	1,656
hats. Gage Br•thers & C•	1,645
"Wings and Bows," for millinery and straw hats, Gage Brothers & Co	1 641
Bats, Gage Dividers & CV	1,011

A printed copy of the specification and drawing of any patent in the foregoing list, or any patent in print issued since 1863, will be furnished from this office for 10 cents, previded the name and number of the patent desired and the date be given. Address Munn & Co., 361 Broadway, New York.

Canadian patents may now be obtained by the inventors for any of the inventions named in the foregoing list. For terms and further particulars address Munn & Co., 361 Broadway, New York.

The Solution of **Perfect Sanitation**



is exemplified in the Sy-CLO Closet, the construction and action of which ends at once all the subtle dangers of diseaseraising from improper cleansing; the escape of sewer gas; the absorption of poison by the material of which common closets are made (iron for instance);

and the gradual discoloration of those interior parts which furnish a prolific breeding-ground for millions of deathdealing bacilli.

The action of the Sy-CLO is two-fold. Besides the copious flush of water, there is an irresistible syphonic action, which, like a powerful pump, literally pulls the contents through the outlet channel, cleansing, scouring, polishing as it goes, leaving the INSIDE of the pipe as clean and smooth as a china bowl. And this is a truism because the Sy-clo is solidly constructed of china pure white china—without joint or break or rough place inside or out to furnish lodgment for dirt or disease germs.

Examine your closet; if it is made of enameled iron or has just an ordinary flush, discard it at the first opportunity for a Sy-Clo. Your doctor pays the bill. If you are building a house or buying one, insist on Sy-Clo Closets with the trade mark name burned in the china. The fact that



Closets cost but little more than other closets—that, with ordinary care, they will last as long as the house in which they are installed, leaves no further excuse for sewer sickness. Ask the plumber. A book on "Household Health" mailed free, if you send the the name of your plumber.

Lavatories of every size and design made of the same material, and on the same principle, as the SY-CLO.

POTTERIES SELLING COMPANY,

Trenton, N. J.



Note the deep water seal, making the escape of gas impossib**le**

WRITE FOR ESTIMATE ON ANY ARTICLE YOU WANT MANUFACTURED STAMPINGS, MODELS, EXPER. WORK WRITE FOR FREE BOOKLET THE CLOBE MACHINE & STAMPING CO. 970 Hamilton St., Cleveland, O.

in half

interior

and Bottlers Machinery. THE VILTER MFG. CO.. 899 Clinton St., Milwaukee, Wis.

MODELS & EXPERIMENTAL WORK Inventions developed. Special Machinery E. V. BAILLARD, 24 Frankfort Street. New York.

RUBBER. PARKER, STEARNS & CO., 228-229 South Street, New York

Experimental Work. Designs for Automatic Machinery. G. M. MAYER, M.E., 1131 Monadrock Bl., Chicago, Ill. DRYING MACHINES. S. E. WORRELL Hannibal, Mo.

THE NATIONAL MODEL WORKS.
Experimental Work, Models, Patterns, and Light
Manufacturing. 85-87 Fifth Avenue, Chicago.

Experimental & Model Work

NOVELTIES & PATENTED ARTICLES MANUFACTURED BY CONTRACT. PUNCHING DIES, SPECIAL MACHINERY. E.KONIGSLOW STAMPING & TOOL WORKS, CLEVE LAND, O.

Electric Supplies. Telephones. Novelties, Dynamos, motors, fans, batteries, lamps, bells, helts, books, toys. Big catalog 4c. Under sell ell. Want agents. OHIO ELECTRIC WORKS, Cleveland, Ohio

Magical Apparatus.

Grand Book Catalogue. Over 700 engravings 25c, Parlor Tricks Catalogue, free. MARTINKA & CO., Mfrs., 493 Sixth Ave., New York.

MASON'S NEW PAT. WHIP HOISTS Want your PATENTS Developed? save expense and liability incident to Elevators.

Adopted by principal storehouses in New York & Boston work. Surveying instrument repairs a specialty.

Telegraphy Circular free. Wonderfu anomatic teacher. 5 style style 20. Dept. 61, 88 Cortland: 81, New York.

WE manufacture METAL SPE-CIALTIES of all kinds. to order; largest equipment; lowest pric-es. Send sample or model for low estimate and best expert advice FREE THE EAGLE TOOL CO., Dept. A, Cincinnati, O.

Watch Making and Engraving School We teach the trace thoroughly in three to six months. You can earn money while learning. Positions guaranteed to graculates. Terms most reasonable. Investigations and Researches. Processes improved. Kansas City Polytechnic Institute

1021 Grand Avenue, Kansas City, Missouri

1021 Grand Avenue, Mansas City, Missouri

() The delice of the contract of the contract

A babbit that is all the name members. Satisfied outsomers are the best argument. You can reduce extension if he plant by reducing long expensive stops and tearing down of machinery to babbit it, by the use of Frictionless Metal Co., Chestnut St., Chattanooga, Tenn.

Start A Mail Order Business.

Acknowledged by shrewd business men one of the most pleasant and profitable business in the World. Stop working for others—big profits—money comes with orders—our plan for starting beginners is a sure winner and offers you a chance to get in business for yourself. Full particulars for stamp.

A. FRANKLIN-HOWARD CO., Kansas City, Mo.

Make your eyes by using our hand power bending machines. Take stock up to 1% inch and bend up to 7 inches diameter.
Write to-day for catalogue. Wallace Supply Co., 921 Garden City Blk, Chicago, Ill.

Read the greatest Socialist magazine in the world. 300,000 circulation. Send 10c, silver for one year's trial.

GAYLORD WILSHIRE, Editor Wilshire's Magazine," 200 Black Bldg., N. Y. City

RAZOR SAFETY FREE

Better than the \$5.00 kind. Mail us your dull razor and 35 cents and we will return your razor sharpened and also give you our Satety Guard and Free Booklet telling how to shave and hone your own razor as well

as an expert.

A. GOODRICH, Mfr.
Established 1864

548 W. Madison St., Chicago

STEEL TYPEWRITER TYPE 100 Nassau Street, New York.

DO YOU

Manfd. by VOLNEY W. MASON & CO., Inc.

Providence, R. I., U. S. A.

Richter & Poncet, 115 Court Street, Hoboken, N. J.

Two minutes from D. L. W. Depot

LEARN WATCHMAKING

We teach it thoroughly in as many mouths as it formerly took years. Does away with tedious apprenticeship. Money earned while studying. Positions secured. Easy terms. Send for catalog. ST. LOUIS WATCHMAKING SCHOOL, St. Louis, Mo

"We Analyze Everything"

At Reasonable Rates