

HOO-HOO

Is the very best for high speed journals and heavy bearings. Made only hy

MORE-JONES BRASS & METAL CO., ST. LOUIS, MO.



THE AUTO-CARBURETTOR made upon a new principle furnishes a reliable explosive mixture. Easy ignition and greatest expansion. No pump required (Jaes any grade of gasoline with no waste. Especially adapted to automobile and cycle motors. Our customers say it is the best Carburettor in the market. We make also the Register Valve for controlling the flow of gasoline or other fluids. Write us for prices and booket on Carburettors. Gasoline and Steam Engines and Automobiles built to order and repeired.

biles built to order and repaired.

The Avery & Jenness Co.,30 W.Washington St.,Chicago



ANY BICYCLE RIDER may and ALL RE-PAIRERS do need our 1901 A. & J. Hanger, if you have a used-up hanger to replace; If you have frames with odd-sized brackets; If you want a bicher gear; Write us and find out all about the A. & J. Hanger. We send the complete set all ready to go into your frame. No bother brazing or re-enameling. We can fit any frame. THE AVERY & JENNESS CO., 30 W. Washington St., Chicago, Ill.



If Your Eye Could See



Berkefeld Filter Co., 2 Cedar St., New York.

Acetylene Gas Burners. Schwarz Perfection Lava Burner.
Highest awards in all Acetylene Expo. ALL strions. Made of one piece of lava. Are faultless and every one tested and guaranteed.

Establishment of the strict of the s Blowing.
Smoking.
Carbonization.
Perfect Alignment.

Sole Agents for the U. S. and Canada.



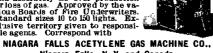
AGENTS man and lady rider on an Eclipse Cycle in every town MONEY for you if you can do it. Write

SEYMOUR MFG. CO., 99 Chambers St., N. Y. Dept. 5.

Acetylene Gas Lighting

Reduced to the most Efficient, Safest, Simple and Economical Use.

We guarantee our machines per-rectly automatic in action, to ex-tract all the gas from the carbide, and absolutely no over production or loss of gas. Approved by the va-rious Boards of Fire Underwiters. Standard sizes 10 to 150 lights. Ex-clusive territory given to responsiclusive territory given to responsi-



Niagara Falls. N. Y. and Canada.







FOR ONE CENT.
Moses, by the aid of a rod, struck a rock and got cold water. You by the aid of a Humphrey Crescent Heater strike a match age hot water. They require no complicated piping, simply connect with water and gas in your bathroom. Guaranteed.

HUMPHREY MFG. & PLATING CO., Kalamazoo, Mich.

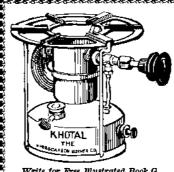
Hinge, hlind, J. G. J. Davis	671,819
Hinge, door, F. M. Champion	671,43
Hitching horses, vehicle device for, I. N.	
Lachner	671,60
Hoisting and conveying apparatus. W. S.	
Halsey	671,79
Holder, W. H. Ford	671,43
Hook and eye card, A. E. Waggoner	671,503
hooks and eyes, japanning, A. E. Wag-	
goner	671,50
Horse detaching device, H. L. Gray	671,822
Horse holding attachment for vehicles,	051 000
Clark & Barker	671,688
Horse notaing device, R. winchel	671,850
Horseshoe, nailless, M. Boulgar	671,433 671,750
Horeshoeing rack, J. Z. Benedict	611,190
Horses or other animals, apparatus for re-	671,668
Hot oir opgins O. D. Ostongren	671,526
moving, A. C. W. Hobman	671,941
Husking pin, J. F. Flaugher	011,94
Hydraulic impact engine, C. N. Dutton, 671,541,	C71 E40
Ice cream mold and dipper, M. Bach	671 700
Incubator redictor F T Ulaka	671,880
Incubator radiator, E. J. Hicks Indicator and seal lock combined, W.	011,000
Scharnweber	671,630
Inscription plate for burial cases, J. J.	011,00
De Lacy	671,511
Insect trap, J. C. Nielsen	671,449
Insulator solf looking W D Pourdslow	671.876
Insulator, self locking, W. P. Beardsley Ironing table, S. H. Witt Ironing table, C. A. Perry	671,64
Ironing table C A Porre	671,657
Inumal hearing I. P. Delane	670.586
Journal bearing, L. P. Delano	671,763
Kite, W. E. Mowrer	671.86
Knitting machines let off and controlling	0.1,00
Knitting machines, let off and controlling means for, F. Wilcomb	671,848
Knives, forks, etc., with handles of same,	0.2,02
connecting fangs of, P. Erhardt	671.544
Knob attachment, C. E. Smith	671,943
Lacing, shoe, A. A. Soderberg	671,712
Knob attachment, C. E. SmithLacing, shoe, A. A. SoderbergLamp burner, oil, F. T. Williams	671,46
Lamp, electric arc. T. E. Drohan	671,512
Lamp, electric arc, T. E. DrohanLamp heater, electric glower, F. M. God-	,02.
dard	671,72
Lamp receptacle, electric, W. E. McDonald.	671,603

connecting fangs of S. Eshraff. (71,644)

connecting fangs of Section for S. Eshraff. (71,644)

connecting fangs of Section for Section fo

(Continued on page \$54)



The "Khotal" Blue Flame Oil Stove (FOR HOME OR CAMP OR YACHT)

generates gas from common kerosene. It will boil a quart of water in two minutes and cook a dinner quickly. It can be regulated to any desired degree of heat. It has no wick and no asbestos substitute. It is strong, durable and ornamental, being made of brass of superior finish and excellent workmaship. A child can operate it.

The "Khotal" costs little to buy and little to run. The combustion is perfect; no smoke, no smell, no soet deposit on pots and pans.

Picturesh nwa smellest also fine him.

pots and pans. Picture shows smallest size, Sins. high, weight 5½ lbs. Price \$3.75. Made in sizes large enough to cook a course dinner.

THE HYDROCARBON BURNER CO., 197 Fulton St.. New York Boston, Mass.: Globe Gas Light Co., 77-79 Union St,

is admitted to be reached when our No. 924 PIPE THREADING MACHINE is used. As a hand machine it is the only one known that will cut and thread an 8 inch pipe with ease and satisfaction. One valuable feature is that it has no arbitrary lead screw for determining style or pitch of thread to be cut. IF Send for Catulogue.

THE MERREIL, MFG. CO. 501 Curtiss St., Tolcdo, Ohio.





Savings Banks 3% vs. Industry 12%

IF YOU Have some money in a savings bank or have investments that are paying you but three or four per cent., WRITE TO US and we will show you our plan for the investment of your money where it will probably net you 12 per cent. per annum.

The United States Steel Company

Has been established for two years, and we have one plant which alone cost us \$250,000, but it is too small to fill the orders for JUPITER STEEL CASTINGS.

The capital stock of The United States Steel Company is three million dollars, divided into six hundred thousand shares, with a par value of \$5.00 each. Every share is full paid and non-assessable. Three hundred and forty thousand shares of this stock have been issued, and for eighteen months a dividend of 12 per cent. per annum has been paid on the outstanding stock,

The United States Steel Company has the sole right to manufacture JUPITER STEEL, CASTINGS, which are castings of the quality of forgings, and the NEAL DUPLEX BRAKE. which is now in use on the system of the Boston Elevated Railroad and other roads. See descrip-

tion, April 6, of this paper.

To provide further capital for the enlargement of their plant, so that they can supply the demand for Jupiter Steel Castings and to build the Neal Duplex Brakes, the Board of Directors have authorized the sale of ten thousand shares of the treasury stock at par (\$5.00) per share.

We will be pleased to send to those who are interested in an investment a full prospectus of this company, together with a record of what has been accomplished in the past two years.

THE UNITED STATES STEEL COMPANY 143 OLIVER STREET, BOSTON, MASS.



UPRIGHT

W. F. & JOHN BARNES CO., 1999 RUBY ST., ROCKFORD, ILL.



COPYRIGHTS &C. Anyone sending asketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. Handbook on Patents sent free. Ideast agency for securing patents. Patents taken through Munn & Co. receive special notice, without charge, in the

Scientific American.

A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, \$3 a year; four months, \$1. Sold by all newsdealers. MUNN & CO, 361 Broadway, New York

Branch Office, 625 F St., Washing

son's recently perfected turbine for boats. Illustrations showing details. Contained in SCIENTIFIC AMERICAN SUPPLEMENT NO. 1158. Price 10 cents, by mail, from this office, and from all newsdealers. HOLD ON THERE

REVERSING STEAM TURBINE.—PAR-



Send 3c. for catalog of Monarch Marine Gasoline Engines. 84 to 45 H. P. \$200 up. Grand Rapids Gas Engine & Yacht Co., Grand Rapids, Mich.



PROSPECTIVE BOAT BUYERS.



By constructing your boat from a set of my Boat Building Materials more Building Materials more than one-half the boat fac-tory's price can be realized. Also economize freight 500 percent Launches, Sall and Row Boats, Gasoline En-gines. Catalog free. FRED MEDART. 3545 DeKalb St., St. Louis, Mo

SAYE MONEY BY USING THE COMMERCIAL MUTOSCOPE.

Takes the place of expensive demonstrations. A moving picture showing your device in action. In a small, compact traveling case. Infinitely superior to models. Send for illustrated pamphlet and prices.

AMERICAN MUTOSCOPE & BIOGRAPH CO., 841 Broadway, New York.

