

G. W. B., of N. Y.—The Avery engine should yield the full power of the steam (except that which is obtained by expansion) provided the arm at the point of exit moves with a velocity equal to that with which the steam flows through the orifice. This requires a long arm and a very rapid revolution. You can see an old Avery engine at a saw-mill in Attorney street in this city.

S. C. S., of C. W.—For general use in soldering gold rings you will find the following recipe valuable: Gold, 2; silver, 1; copper, 1. Stir it well, and add a little borax in powder; pour out in slips, which will make it handier to use. To clean gold which has been soldered heat it very hot; let it cool gradually, then boil in urine and sal ammoniac. A harder solder than the above is made of gold and silver.

I. H. D., of Mass.—The dispatch on the American line does not go to the Independent line, because the circuit is broken; there is no connection between them. We have never seen two rudders applied to one vessel in the manner you describe, and do not doubt its utility so far as increased action on the hull is concerned. Your hoisting arrangement through the aid of a hydraulic press would be too slow. No body could wait fifteen minutes to hoist a tun twenty feet. Your plans for iron-coating ships are not new; similar ones have been published in the SCIENTIFIC AMERICAN.

J. H. M., of Mo.—A man has no right to make a patented article for his family use without the inventor's consent.

U. S., of Md.—W. W. Secombe, No. 254 Broadway manufactures a very excellent hand-stamp canceller.

F. T., of Iowa.—If you have used your smokestack nine years and find it has now failed you have had good service from it and it has died of old age. The exhaust passing into it does not affect its durability, for whatever moisture resulted therefrom would be dried up almost instantly.

R. T. D., of Conn.—What you require is the terchloride of gold. A brass chain washed in this receives a golden deposit when dried.

J. T., of D. C.—You will find the information about the reporting machine on page 113, vol. XI.

T. A. H. C., of Mo.—A very useful book for you will be the Timmer's Manual and Builder's and Mechanic's hand book, by I. R. Butts & Co., Washington street, Boston, Mass.

Venango, of N. Y.—We understand that Professor Dana has a work in press on petroleum, and you will doubtless find that free from the absurdities and trivialities in the work of which you complain.

J. S., of Ill.—If you will send us a sample of the substance in your spring we will tell you whether it is petroleum. In these days the dreams of a great many people are running on oil wells.

J. W., of Mass.—No person except the owner of the patent right for a given state or territory has a right to make use of or sell the invention in such State.

A. G. W., of D. C.—We certainly did not mean to accuse you of plagiarism. We published your communication for the benefit of our large numbers of new subscribers, and we added the foot note principally to call your attention and that of other readers to our previous article.

NOTICE TO SUBSCRIBERS.

The first five numbers of the present volume of the SCIENTIFIC AMERICAN being out of print, we shall commence the time of each new subscriber from the date of receipt of the order, unless the writer states specifically that he wishes such back numbers as can be furnished.

SPECIAL NOTICE TO INVENTORS.

The mon y receipts on account of patent business, which have heretofore been published in this column, and the notification of cases sent to the Patent Office, will for the present be discontinued. The receipt of specifications and money from inventors will be acknowledged promptly by mail.

TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and enclosing \$1 as fee for copy. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

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MODELS are required to accompany applications for Patents under the new law, the same as formerly, except on design patents, when two good drawings are all that are required to accompany the petition, specification and oath, except the Government fee.

INVARIABLE RULE.—It is an established rule of this office to stop sending the paper when the time for which it was pre-paid has expired.

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When the heat is too great, the draught is shut off in front; when it is about right, the chimney stopper is closed, and the heat all retained; as the boiling slackens, the grates are raised one or all, less or more, nearer to the pan; as the fire deadens, the draught is let on, and so continued.

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