HINTS TO CORRESPONDENTS.

for incrustations of boilers. A. Remedies that dilute with water. Violet-Mix together sohave been adopted with more or less successilutions of nitrate of cobalt and sesquicarfor boiler incrustation: 1. Potatoes, 1-50 bonate of ammonia, adding a sufficiency of Squab raising is far from the easy pastime weight of water, prevent adherence of scale. ammonio-sulphate of copper to strike the re- it may appear to be upon first consideration. 2. Twelve parts salt, 21/2 caustic soda, 1/8 ex- quired color. Yellow-1. A solution of sesquitract of oak bark, 1/2 of potash. 3. Pieces oxide of iron (ferric oxide), 1/2 pound, in 1 that one must attend to with the greatest of oak wood suspended in boiler and renewed quart hydrochloric acid, diluted with water. monthly, prevent deposit. 4. Two ounces 2. To a strong decoction of French berries add after considerable experience that one can obchloride of ammonia in boiler twice a week a little alum. 3. A simple solution of poprevents incrustation and decomposes scale. tassium chromate or potassium bichromate. falls that beset the beginner may be largely 5. Coating of 3 parts black lead, 18 tallow, 4. A solution of equal parts of niter and po applied hot to the inside of a boiler every tassium chromate. 5. A solution of potassium it embodies the results of seven years' carefew weeks, prevents scale. 6. Thirteen pounds bichromate. melasses fed occasionally into an 8-horse-power

 and the the mean of a least of the mean of a least and at the cost of the second second the mean of the second second the sec 853,584 853,995 853,998 853,449 853,775853,362known tools in existence, yet few of its users<br/>are familiar with its possibilities in the broad<br/>er sense. Mr. Fair's book contains directions<br/>on how to test the accuracy of the square, how to<br/>solve a number of difficult problems by its aid.<br/>The work all as the experiment in using them,<br/>that the workman can even hope to develop.<br/>The TrackInnex VEAR Book. 1907. Edited<br/>by Arthur C. Kelly and Charles<br/>by Arthur B. Elice the statis is limited by the<br/>fact that nuch of the data is purely Britic.<br/>He charles the united States is limited by the<br/>fact that nuch of the data is purely Britic<br/>the charles of the seames nothing that way be so altered as to be quily in<br/>that useful as a pocket reference book.<br/>In character, and does not apply break.<br/>He charles the interest the outer of extend and rewritten. Bos-<br/>fact that nuch of the data is purely Briting in the switch as to be quite the original<br/>that useful as a pocket reference book.<br/>In character, and does not apply break.<br/>He charles the switch shift here been proved to exist. Monoris working makine, W. E. Haran.<br/>States<br/>the charles of the switch shift here been proved to exist. Monoris working in the switch as the work was nothing that the working in the the the consumption of unwholesome lem of the ether.State the switch as the switch as the work was nothing that the working in the witch as the switch as the switch as 853.939 3. Solution of indigo in sulphuric acid, diluted to use it with the best results. and how to with water. Crimson-1. Iodine and iodide solve a number of difficult problems by its aid. of potash, of each 30 grains; hydrochloric The work is highly to be recommended, for it acid, 1 drachm; water, 1 gallon. 2. Alkanet is only by having a thorough knowledge of his root, 1 ounce; oil of turpentine, 20 ounces. tools, as well as the experience in using them, Green-1. Sulphate of copper, 1 drachm; bi- that the workman can even hope to develop chromate of potash, 30 grains; strong liquor into the artisan. of ammonia, 2 ounces; water, 1 gallon. Copper sulphate, 2 ounces; sodium chloride, 4 ounces; water, 1 pint. 3. Solution of verdigris (distilled) in acetic acid, diluted with water. 4. Dissolve blue vitriol in water, and add nitric acid until it turns green. 5. For dark green, chromium sulphate. Magenta—Acetate of rosaniline dissolved in water. Olive—Dissolve equal weights of iron sulphate and sulnhuric acid in water and add copper nitrate. q. s. to strike the color. Orange-1. Disolve bichromate of potash in water and add a little sulphuric acid. 2. Dissolve gamboge in liquor of polassa: dilute and add a little water. Pink-1. To a solution of cobalt nitrate or chloride in water add sesquicarbonate of ammonia, q. s. to dissolve the precipitate at first formed. 2. From madder (washed with old water), 1 ounce; sesquicarbonate of ammonia, 1 ounce; water, 3 pints, 12 fluid ounces: digest with agitation for twenty-four hours; then dilute with more is to overcome this indifference and to make it is to such thinking that we must look for water and filter. Purple-1. Sulphate Jof a knowledge of foodstuffs and their values so the solution of the seemingly unsolvable probcopper, 2 drachms; water, 2 ounces; French general that the consumption of unwholesome lem of the ether.

gelatine, 1 drachm. boiling water, 2 ounces; Dissolve the solution of potassa, 2 pints. copper salt in the water, and the gelatine in the boiling water. Mix the two solutions and add the liquor of potassa. Shake the mixture few times during ten hours, after which decant and dilute with water. 2. A solution of copper sulphate, 1 ounce in water, 1 quart HINTS TO CORRESPONDENTS.
Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication.
References to former articles or answers should give date of paper and page or number of question.
Inquiries not answered in reasonable time should be some answers require not a little research, and, though we endeavor to reply to all either by letter or in this department, each must take his turn.
Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same. q. s. 6. Add sulphate of indigo, nearly chanical engineering. It gives in concise and neutralized with chalk, to an infusion of handy form practical information on the chartion of perchloride of iron, 10 drops; sulphoaddresses of houses manufacturing of carrying the same. Special Written Information on matters of personal rather than general interest cannot be expected without remuneration. Scientific American Supplements referred to may be had at the office. Price 10 cents each. Books referred to promptly supplied on receipt of price. Minerals sent for examination should be distinctly marked or labeled. advanced for beginners, and of rather too advanced for beginners, and of rather too advanced for beginners, and of rather too tion for twenty-four hours. 6. Dissolve mad-(10535) R. L. M. asks for a remedy der lake in sesquicarbonate of ammonia, and

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> For which Letters Patent of the United States were Issued for the Week Ending May 14, 1907. AND EACH BEARING THAT DATE

> [See note at end of list about copies of these patents.] 853,651 853,473 853,574 853,487 853,619 853,345853,673853,424 853,356 853,559 853,4€2 853,542 853,76€ 853,579 ,666 ,898 853 853 853,331 853,548 853,841 853,455 853,835 853,882 853,882 853,809 853,625853,415853,92 853,276 853,877 853,445 853,927 12,652 853,317 853,58**6** 853,567 853,316 853,635 853,032 853,379 853,6**6**3 853,735 853,690853,363853,634853,347853,396 853,535 853,36 853,8**2**1 853,545