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Notes & Queries

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 This is for our information and not for publication.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 repeated; correspondents will bear in mind that 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.

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(6538) C. A. G. writes: I am making a chime of three whistles, the bells to be of 2 inches brass tubing, ⅛ inch thick, the longest tube or bell to be 8 inches. The cap piece will extend into top of bell about ¾ inch, of course shortening air column that amount. The longest bell being the key note, I wish the others to be higher in pitch, and all to range as do, me, sol, or as in key of C major, C, E, and G. I wish to know of what length to make each of the other two bells, and also about what size opening should I give the steam vent under the bells with steam pressure of 150 pounds. A. The making of a chime whistle is a matter of experiment until the relative conditions are found. Make the low tone whistle first, then use a sliding plug in the bell for regulating the tones of the other whistles. The steam slot should be about one-fiftieth of an inch opening.

(6539) J. H. M. writes: I have two nests of boilers, six in a nest, and what is the horse power of each boiler, or what is the horse power of 12 boilers? Each boiler is 47 feet 7 inches in length by 30 inches diameter. Fire box 16 feet in width by 6 feet in back. What is the cause of a set of boilers foaming when the fires are kept all the same heat, bridge wall the same height, and water enough going in boiler continually? A. If your boilers are plain cylinder boilers, without flues, they are 19 horse power each, or 228 horse power for the 12. The foaming is probably caused by driving too hard, or by bad water.

(6540) W. S. M. writes: I purpose to lay some old 2½ inch and 3 inch pipe along both sides of the shop about 7 feet from the floor for heating purposes. Engine exhaust 4 inches. My idea is to connect with two 3 inch pipes and go down each side, which is 78 feet, and return with 2½ inch pipes; this will use all we have got, but will return the second time if you think feasible. Or would it be better to have the exhaust discharge into one 3 inch and 2½ inch to begin with and have no return? Size of shop 78 feet by 38 feet. A. The plan of dividing the exhaust with a 3 inch pipe and returning with a 2½ pipe on each side is correct. The last ends of the return pipe should be open, so as to allow drip and excess of steam to escape freely. This arrangement prevents undue back pressure in the engine. All pipes should be laid to allow water of condensation to run with the steam to drips or to the end of the line.

(6541) J. H. asks for a rule to find strain brought on staybolts. Also how to find horse power of an engine with the indicator. How to find displacement of steamship. A. The strain on a staybolt is the whole area of plate due to any one bolt multiplied by the steam pressure. If the stays are 6 inches apart in each direction, the area is 36 inches. You will need a book on the indicator for the horse power problem. See Pray's book, "Twenty Years with the Indicator," $2.50 by mail. The displacement is also an intricate problem. See Haswell's "Engineer's Pocketbook," $4 by mail.

(6542) W. H. P. says: Inclosed is a twig from a Pirus Japonica bush growing in Philadelphia, which seems to be suffering from a white scale covering most of the stems, some of which are already dead and others dying. What is the remedy for this, if any? A. Answer by the Entomologist, United States Department of Agriculture.—This is the common scurfy bark louse (Chionaspis furfurus) found abundantly on pear, apple, etc. Spray about June 1 with dilute kerosene emulsion (1 part to 10 of water) or during winter with 1½ pounds whale oil soap to 1 gallon of water.

TO INVENTORS.

An experience of nearly fifty years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the lawsand practice on both continents, and to possess unequaled facilities for procuring patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices, which are low, in accordance with the times and our extensive facilities for conducting the business. Address MUNN & CO., office SCIENTIFIC AMERICAN, 361 Broadway, New York.

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AND EACH BEARING THAT DATE.

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Wagons, spring circle for stiff-shaft, E. J. Parker. 539,640
Water closet, E. Hammann 539,477
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Windows, chair support for cleaning, A. Muller .. 539,632
Wire stretcher, E. E. Bell 539,663
Wire stretcher, W. W. Mangum, Jr 539,587
Wooden moulding, machine for making, H. Johnson 539,620
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Wrapping or coverng machine, L. H. Adamson .. 539,659
Wrench, A. Delbommer 539,673
Wrench, J. P. Lavigne 539,625
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Yoke, neck, J. A. Koelsch 539,433

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Bedstead, O. E. A. Wiessner 24,326
Bottle, wooden, W. C. Estes 24,324
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Grate bar, D. C. Green 24,322
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Ring holder, A. Sametz 24,320
Table leg, J. C. Miller 24,325

TRADE MARKS.

Candies, Candy Brothers Manufacturing Company 26,577
Cement, J. H. Bloom 26,582
Cheese, Monroe Cheese Company 26,578
Cigars, Taladrid Hno y Ca 26,575, 26,576
Cigars and cigarettes, J. G. Reed & Company 26,574
Cough sirup, I. E. Wilbur 26,571
Lard, hams, shoulders, bacon, and other meat products, Swift, Dwyer & Company 26,580
Medicinal tonic for nervous weakness, W. H. Roger 26,572
Ointment for the cure of skin diseases, C. Coe 26,569
Paper and paper lining, crinkled, Niagara Paper Mills 26,563
Perfumery, A. F. Haddad 26,568
Remedy for nervous diseases, Prunier et Cie 26,570
Salmon, J. M. Chapman & Company 26,581
Shoe nails, corrugated brass, River Company 26,565
Steel wool for cleaning and polishing purposes, A. Rich & Company 26,566
Umbrellas and umbrellas with detachable handles, folding, Gripsack Umbrella Company 26,564
Washing fluid, J. E. Craig 26,567
Welsh rarebit, prepared, J. F. Howard 26,579
Whisky, rye, J. C. Low & Company 26,573

PRINTS.

"Chas. A. Schieren & Co." (for belting), C. A. Schieren & Company 9

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