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## fif te temex

S. D., of Conn.-The question of lubricating valves and pistons of steam engines will soon be discussed in the SCIENIPIC AMEICAN. It tends to injure a steam boller to refil it im-
mediately after blowing off in winter ; the abrupt contraction of the iron, from a high to a comparatively low temperature weakens
$t$ would injure the flues to burn them out whether the boiler is full or not; the heatmust be sointense to affect the scale that the fue ls burnt $t$ oreit is removed. The deposit you mention can be removed by using a stiff wire brush with short handles linked to gether like a chain, this can be employed in the shortest turns. It will take some tume to do it thoroughly if the fues have bee neglected. An eel as thick as a man's thumb and of proportionat length must be a singular fish; we could not account for the pres hill. The eel must have been a water snake.
E. L., of Mass.-Gas stoves are in quite extensive use and it seems to be generally supposed that they are serviceable in warming rooms, but we have never known of any careful experiments being made to ascertain whether a room is heated more uickly by means of the stove than it is by burning the same quan tity of gas in the open air. In both cases the combustion would probably be perfect, and the absoluteamount of heat generated would be the same. As, however, heat accompanied by light-intense heat-passes more freely through diathermic bodies than eat of low temperature, the stove would cause a largerquantity of heat to be absorbed by the air, a correspondingly less quantit. passing through the air into the walls. But the pricipal advant age of the stove is probably to prevent the heat from risiag to the by an open burner. Gas burned in a stove, as well as in an by an open burner. Gas burned in a stove, as well as in an open
jet, not only exhausts the oxygen from the air, but generates in its place carbonic aoid, and if a large jet were burned a long time in a small room it might prove fatal to the foccupants; but we have never heard of a case of death from this cause.
O, P, B,, of Ind,-Trees grow by a deposit of new matter each year between the bark and the wood all round the trunk and branches. This deposit is made in the form of cells, and those which are deposited in the spring have their cross walls absorbed But form minute tubes extending the whole length of the tree solid matter. Thus each year's growth of the tree is an envelope, the inner portion of which is porous, while the outer portion is solid wood. When a tree is cut down it is easy to ascertain its age y counting these yearly rings. An estimate formed by counting the rings in an inch of section near the bark, and multiplying these the number of inches in the semi-diameter, wouldmislead, as e rings are generally broader near the center
O. S. D. Mass.-You can procure photographic gunootton of Seely \& Boltwood,244 Canal street, this city, They would
doubtless make some for you, to order, by Baron von Lenk's proess.
C. R. L
C. R. L., of N. Y.-If you will look on another page of this Journal you will see an artice called "A hint worth remem beying." You can draw an infer
C. E. H., of Cal.-We do not now know where you can procure a good rock-drilling machine. The
d. A. McC., of Mich.-Address Wilcox \& Hall, Middle town, Oonn., for gal vanized castings of malleable or cast-iron.
J. R. L., of N. Y.-The safety Falve was nrst invented by Papin in 1700, whoappliedit to a cooking machine for digesting pones, meats, \&c.
A. S., of N. J.-Your small boiler is not safe over 25 pounds on the square inch. Slippery elm will sometimes remove cale from boilers; in others spent tan bark has been found useful. cood presaription in one oase would be utterly worthless in another. Pure rain water is decidedly the best if you can get $i t$. J. W., of Canada.-We perceive nothing new in your uggestions. Vessels with compartments, and a rudder at each ond are now in use. Propellers at the sides are old. Fog signals for indicating the direction of movement for vessels are emploged.
G. S. S., of Pa.-Use Hilton's Insoluble Cement fo sticking your glass lette
P. S., of Va.-You should address H. C. Baird, 406 Wal nut street, Philadelphia, for a treatise on the slide rule. If he has'nt got it , he canget it , or anything else in the book line.

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