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Notes & Queries

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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 This is for our information and not for publication.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.
Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same.
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Scientific American Supplements referred to may be had at the office. Price 10 cents each.
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(7525) E. P. asks: 1. Is there any way in which a Geissler tube might be injured by too heavy a current from a static machine, other than by the admission of air into the vacuum through a puncture in the glass? A. The vacuum in a tube always rises during its use; so that after a longer or shorter time it becomes impossible to force sufficient current through it to excite it. This is due to the absorption of the matter remaining in the tube by the electrodes or by the walls of the tube. The tube may be improved temporarily by heating it either in an oven or by a spirit lamp, being careful not to heat it unequally and so crack it. The better way is to buy tubes with adjustable vacuum, several makes of which have been repeatedly advertised in our columns. Such tubes will last indefinitely. 2. How can I expel the moisture from saturated calcium chloride, so that it may be used again for drying purposes? A. We know no way except by heat. 3. Is white shellac simply bleached, and will serve as well as brown to prevent the deposition of moisture on the plates of a static machine. 4. Is there any particular method of handling X ray tubes with a static machine that will prevent them from becoming punctured by the current passing through the glass? I have great trouble in this respect. A. Tubes are usually punctured because the vacuum becomes so high that the discharge finds it easier to go through air and glass than through the vacuum. Of course the remedy is to keep the vacuum down to its proper value. A tube must have a lower vacuum for use on a static machine than with an induction coil. Hence such machines break more tubes than do coils. The writer has tubes with adjustable vacuum which he has used nearly two years without trouble. 5. How many glass plates 22 inches in diameter would a Wimshurst machine require in order to give good effects in X ray work? A. Large machines are made with six and eight plates for piercing the thicker portions of the body. Less power than a good fat eight inch spark should not be considered. A twelve inch spark is none too strong for the thorax, head, or thigh.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

NOVEMBER 22, 1898,

AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

Adding machine, M. T. Fish. 614,454
Advertising arch, Dobson & Archibald. 614,739
Advertising card, postal, T. Braley. 614,695
Air, heater for expanding, J. Heimlich. 614,717
Alarm. See Fire and burglar alarm.
Annealing box, F. Schwedtmann. 614,768
Ax. O. Olson. 614,747
Ax handle clip, H. Zopf. 614,525
Axle arm, lubricating, E. D. Ives. 614,656
Axle, mine car, A. Conwell et al. 614,444
Balloting machine, W. M. Dougherty. 614,800
Bandage, W. H. Johnson. 614,477
Battery. See Galvanic battery. Secondary battery.
Red pan, H. Allen. 614,526
Beet root cutting machine, H. P. Dyer. 614,446
Bell base plate, bicycle, H. N. Gale. 614,805

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(Continued on page 366)



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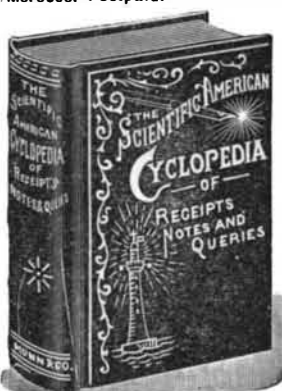
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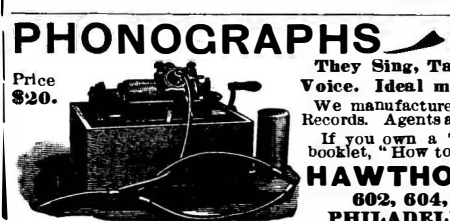
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