ents. The can may be conveniently filled, and the device is
order.
Vending Machine.-James Walton, Phoenicia, N. Y. This is a machine for vending either stamps or paper and envelopes, but it is preferably ar-
ranged with duplicate parte, so that both may be delivered by one machine. It is designed to be simple and nexpensive, and with easily working mechanism, which is not liable to get out of order, the delivery of the post age stamps and paper and envelupes being effected by mechanism controlled by dropping a coin in the slot of he machine
Street Sweeper.-August G. Rosenbauer and Richard Brussel, New York City. This
sweeper is designed to afford means of sweeping the en ire breadth of the roadway elevating the sweepings a he machine moves along and depositing them in a dirt receptacle, which can be conveniently dumped at any de sired point. The movements of the brushes are con-
trolled from the driver's seat in such manner that the brushes may have a light contact with the roadway, or may be made to bear heavily thereon, or lifted entirely clear and their motion stopped.

## Designs.

Design for Trimming. - Josephine Muller, New York City. The principal feature of the in entiou consists of serpentine opposing side lines, form formed, one merging into the other, imparting to the trimming a plaited appearance. In the details of the design a central ornament is formed between the marginal lines, having an embossed appearance, and cross ties ap pear to separate the series of loops.
Note.-Copies of any of the above patents will be urnished by Munn \& Co., for 25 cents each. Pleas of this paper.

## SCIENTIFIC AMERICAN

## BUILDINGEDITION

## NO VEMBER, 1894.-(No. 109.)

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mated cost $\$ 5,000$. Mr. William A. Lambert, architect,
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ier, Esq ive elevation Bensonhurst, L. I. Three perspec plete. A good example of Colonial architecture Messrs. Parsitt Bros, architects, Brooklyn, N. Y. dwelling at Edison Park, 11. Cost 81700 . Archi tect, Mr. F. W. Langworthy, Chicago, II. A model design for its class and
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Garsia, Esq., at Flatbush, L I C C C Garsia, Esq., at Flatbush, L. I. Two perspective
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5. Au $\$ 800$ summer cottage built for A. R. Doten, Esq.,
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architect, Portland, Me.
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10. A residence at Ardmore, Pa., in the Queen Anne style. Perspective elevation and fioor plans. Cost com-
plete $\$ 6,750$. Architects and builders, Messrs. J. B. Cornell \& Sons, Philadelphia, Pa.
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12. An attractive cottage at Bath Beach, Long Island, N. Y., recently erected for G. W. Snook, Esq. Two
perspective elevations and fioor plans. Mr. Percey Emmett, architect, Bath Beach, Long Island.
13. Miscellaneous contents--Wood pavementin London. -Preservation of wood.- Methods of constructing passing of red brick.-Long distance house mov ing.-Carved and fancy mouldings, illustrated. new sash lock.-Automatic heat regulation in houses, etc., illustrated.-Woodwork ve. flame.Curiosities about wood.-Cement water tanks.An improved hot water heater. illustrated.-How lllustrated. - An improved stage bracket iron, illus trate.-Party walls.-Architectural metal orna ments, illustrated.
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narkeat or Tabelea.
(6305) J. J. H. asks: 1. How high bove the level of its source will an ordinary hydraulic ram raise water? A. The ordinary water rams will force onditions to 200 feet, if the distance is not excessive See the possibilities and computed conditions for hyaraulic rams in Scientific American Supplement,No.
793,10 cents mailed. 2 . Will a sheet of stove loosen soot in a chimner? A The burning of zinc is said to loosen soot in the chimner. We appre hend the cause to be in the deposit of rinc oxide on the surface, which prevents the soot from sticking. The burning of zinc should bedone after a chimney has been cleaned. 3. Does the temperature of steam increase with the pressure? A. The temperature of steam in reases with the pressure. 4. What is taggers iron (6306) H. E. J. B. asks : 1. How is white or cream sealing wax made and what can I use in place of bleached shellac for makng bronze or gold sealing wax? How is the wax poured in small strips about $1 / 4$ which diameter? A. A beautiful variety (aventurin), tained by stirring finely powdered mica into the melted tound mass. Gold and silver waxes are obtaned by mixing finely powdered leaf metal with the melted ground mese Ground mass for translucent wax is:

## Bleached shellac. Viscid turpentine

Viscid t.
Mastic.
Chalk.
3 parts.
3
6
6
For white sealing wax add zinc white. Bleached shellac nustbe used. For information in regardto moulding seal Printing Inks and Sealing Waxes," \$2.50. 2. How can I make gold plating to rub on, also silver plating to rub on places thatis buffed off too much? A. Gilding.-Arti metals may be gilded by simply immersing them in a weak solution of the chloride of gold. Silvering.-Diswater, then dissolve in the silver nitrate in 12 ounces sof anide. Shake the whole together and let it stand until it becomes clear. Have ready some half ounce vials and fllup the bottle with the lignid and iting and then The silver coating is not as tenacious to the article as. when electrolytically deposited. This is very poisonous nd should be handled with great caution-if at all. 3 nitro-muriatic acid and precipitate with ammonia, will any copper be thrown down with the gold if there had been any in the gold coin or will it remain in the acid?
A Precipitate the copper first by adding sodium bicar bonate until effervescence ceases. The copper will be deposited asa green carbonate of copper. Filter, and add have "Experimental science" and would like to know If made a dynamo one-quarter size of the hand power an ordinary $21 /$ inch bell, such as is used with a battery A. Yes. 5. What will dissolve bichromate of potash and
gelatin off glass that has been exposed to sunlight? A
Try weak hydrofiuoric acid. 6. How can I put the finish Try weak hydrofiuoric acid. 6. How can I put the finish-
ing polish on anopal ? A. Use fine emery applied to lead lap, finish with rottenstone and water. 7. How can ron or steel be blued without heat? A. Solution of po tassium ferricyanide and water, one part $o_{\text {: the potas }}$ the
ium salt in two hundred hloride sin two hundred of water; solution of ferric dip.
(6307) M. W. asks: Why is it that dirt taken from an excavation will not fill it when replaced? driven sand, is solidly packed, having been deposited slowly in water in the early geological ages, by which pying the smallest possible volume. When such earth is disturbed the contact is broken, a thin film of air sepaclosest rel particles and keeps them from falling into th dry sand into a keg and then pouring in water to satura tion; then by sbaking the keg the sand will settle into lose contact, showing the difference in volume.
(6308) J. E. H. asks: 1. What is the est kind of glass to be used in making Wimshurst ma-
chine? A. Thincrystal plate. 2. What size wire shall I use to wind sewing machine motor for 110 volts? A For motor described in Supplement, No. 641, use No.
3 wire on field and No. 28 on armature. Start it with a resistancein series or you will burn out the armature A good method to cut the tops off two quart bottles.
would like to make battery jars out of them. A. Notc the glass with a flle; rub it back and forth with a red hot pipe stem or poker. When a crack starte, lead it around with the hot poker or pipe stem. It is well to tie a string around the bottle as a guide. Rub off the sharp edges with a whetstone such as used for scythes.
(6309) N. B. P. asks for browning for shotgun barrels. Also how is the best way to remove with chloride of antimony, dip it into olive oil, and rub the barrel over. In 48 hours it will be covered with a fine coat of rust Then rub the barrel with a fine stee scratch brush, and wipe with a rag dipped in boiled lin seed oil. Remove the old coating wir ond emery treat as above.
(6310) O. S. asks for the relation of the armature wire resistance to the field winding of a series ance of the field maguets should be two-thirds that of the armature; in a shunt-wound dynamo the product of armature and field resistance should be equal to the square of the external resistance. The armature resistance is used in winding it, unless of course the wire is used in parallel.
(6311) W. D. asks : If a bar of wrought iron 1 inch in diameter and 1 foot long, carrying a coil of ond past a permanent magnet distant 1 foot, this magnet having a cross section of 3 Inches and a space between its poles of 1 foot, is it possible by varying the quantity of wrre to induce a current having a value of 1 watt ? A. A current is not measured in watts, but in amperes. It
would be very difficult to produce a one ampere current with one volt potential difference in the circuit under the conditions named.
(6312) H. C. W. asks how many storage ells it would take to run the motor 641 to the best ad vantage, and can the motor be used as a dynamo to will run the motor. It is not adapted for use as a dynamo.

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