We have thus in catalysis a connecting and overshadowing link between the cataphoric and electrolytic influences of the current, between the electro-physical and the electro-chemical processes described in the earlier portions of this lesson. (To be continued).

PRIZE ESSAY COMPETITION, -----XVI.

Consolation Prize.

Describe the best manner in which a Kitchen should be fitted up suitable for the Staff and Patients in a Hospital or Home of Twenty Beds, the Utensils required, the Makers' Names and Approximate Cost of them; and mention every detail considered necessary for the smooth and proper conduct of such Kitchen.

> By MISS EMILY LOUISA SYMONDS, Royal Infirmary, Edinburgh.

(Continued from page 175.)

A KITCHEN in which the cooking for twenty patients—which means, counting the work-

ing staff of the Hospital, some twenty-seven or twenty-eight persons under the roof-is to be comfortably carried on should be about twentytwo feet by twenty-two feet by sixteen feet ; with a window ten feet by twelve feet in depth, for plenty of light and air are essential to the health of the kitchen workers. It should be situated in some portion of the building easily accessible from all parts of it, although sufficiently away from the Wards that the patients' olfactory organs may not announce to them what their dinner will be before it reaches them. It should be in communication with a corridor, in which there is an outside door for receiving goods from the tradespeople; also near the coal-cellar, pantry, and store-room, and attached to it there should be the scullery. It would also be well if it were next to the Nurses' dining-room, that all dishes and plates for their table might be passed through a small aperture in the partition wall. It would also considerably aid the serving of all food warm to the patients if a lift was in communication between the kitchen and some part of the building at easy access from all the Wards. Then at, say, ten in the morning, in time to be heated before dinner, down from all the Wards by means of the lift could be sent the plates used the day before for the patients' dinner (which have been washed in the Ward-kitchens), that they may be again refilled. There should be an electric bell to call the attention of the person to whom the lift filled is being sent.

The walls of the kitchen and scullery look nicely, and are easily re-done every year, if colourwashed. All wood should be painted or varnished.

The artificial lighting, if possible, should be electric, placed in the centre of ceiling; but if this cannot be, gas should be used. It would requirefour brackets, with number five burners— Bray's, a quarter dozen—to light it comfortably. These would cost, including wire globes, about five shillings each.

There should be a dresser fixture, twelve feet long, with shelves having narrow ledges at their edge, so that the plates used on the Nurses' dining table might be placed there when not in use. As this much adds to the effect of any kitchen, a few hooks might be placed at the edge of the shelves for hanging jugs and sundries; below this three drawers for tea cloths, dusters, and other kitchen linen; lower still, a board some two inches from the floor, for some of the brighter cooking utensils. Three pounds.

The cook would require a cupboard where she could place the groceries and dry goods from which she is using. One pound.

It would be very convenient to have two sideflaps, seven feet by three, fixed against the wall at different points to be raised at will: ten shillings each.

The floor would look nice if laid with red tiles; these do not retain grease as much as deal boarding. Tiles, two shillings per dozen. They can easily be scrubbed with warm water.

The Flaver or Eagle fire range would suit this and any kitchen well, with two ovens and plate rack. If fitted with wrought iron high-pressure boiler, it would supply hot water all over the building both for baths and heating: fifteen pounds. Poker, three shillings and sixpence. In addition to the oven a hot closet would be convenient: thirty shillings.

There should be a cold water tap in kitchen as well as hot. Brass tap, three shillings and sixpence. At the least three times a year boilers and cisterns should be cleaned if water be hard.

A gas-stove with copper boiler should be ready fixed for use when range needs repair or cleaning. One in which the day's dinner could be cooked by baking inside and boiling out, of the Sundial make, would cost ten pounds. All iron should be cleaned with Nixey's blacklead, fivepence a dozen cakes; brass with Monkey Brand soap, Sapolio, or Needham's polishing paste, five shillings a dozen tins or cakes.

Table for centre should be deal, 8ft. by 5ft., \pounds 1 3s. This should be scrubbed every day, and kept spotlessly clean. Cold water, mason's dust, or fine white sand and mottled soap, with the scrubbing-brush carried along the grain, would



