

## Our Guinea Prize.

We have pleasure in announcing that our Guinea Prize for September has been won by Miss E. Richardson, Accident Infirmary, Hebburn-on-Tyne.

### KEY TO PUZZLES.

1. Maltova.—M'ALT! over.
2. Hospitals and General Contracts Co., Ltd.—Oss petals & General CoN (on his chest) tracts Co. Ltd.
3. Hall's Wine.—'All's whine!
4. Peptogenic Milk Powders.—Pep to Genic (a letter) Milk (cow) Powders.

The following competitors have also answered the questions correctly:—

- Miss A. Pettit, Northern Hospital, Winchmore Hill.  
 Miss Milne, Cornelia Hospital, Poole.  
 Miss M. H. Sherlock, Leicester Infirmary.  
 Miss S. Attree, North Ormesby Hospital, Middlesbrough.  
 Miss Hair, Tallerman Institute, Poole.  
 Miss W. Wallis, Bagthorpe Infirmary, Nottingham.  
 Miss L. Davidson, Beaumont Street, W.  
 Miss M. M. Duffield, Albion Terrace, Bridgnorth.  
 Miss F. Sheppard, Kent Nursing Institution, Tunbridge Wells.  
 Miss Dingle, Tallerman Institute, Poole.  
 Nurse Eliza, North Ormesby Hospital, Middlesbrough.  
 Mrs. Harwood, Maida Vale, W.  
 Miss Clara Allee, The Manor, Stadhampton.  
 Miss C. Kerr, Kelinworth Square, Dublin.  
 Miss M. Wright, Morningside Park, Edinburgh.  
 Miss Eckersley, North Ormesby Hospital, Middlesbrough.  
 Miss Hindley, Meads Vicarage, Eastbourne.  
 Miss A. Kepple, East India Road, E.  
 Miss C. French, Sheffield Terrace, Kensington.  
 Miss T. Fraser, Brook Street, W.  
 Miss S. Young, Raglan Street, Lowestoft.  
 Miss A. Little, Sudeley Street, Brighton.  
 Miss G. Woodford, South Park Terrace, Glasgow.  
 Miss E. Keith, Lower Mount Street, Dublin.

The following competitors sent three correct answers, substituting "Maltico" for "Maltova":—  
 Miss E. A. Martin, St. George's Street, Cork.  
 Miss E. Hancock, Connaught Road, Roath, Cardiff.  
 Miss M. Beilby, Marylebone Road, W.  
 Miss E. Power, Infirmary, Royal Naval School, Greenwich.

Miss Wood, Ballinhassig, Cork.  
 Miss A. M. Beedie, Matron, Cottage Hospital, Somerton.

And upwards of a dozen substituted "Listerine" for "Hall's Wine," otherwise sending three correct replies.

The new set of Prize Puzzles will be found on page viii.

The rules remain the same.

## Practical Notes on Invalid Feeding.

By Mrs. M. WESTAWAY,

*Associate of the National Health Society.*

### IX.—FRUITS AND VEGETABLES.

The vegetable kingdom supplies us with two further varieties of food, which, although unsuited to the support of life, form valuable adjuncts to the ordinary diet. They are fruits, and what are colloquially known as "vegetables."

Both fruit and vegetables are characterised by a large proportion of water and a small amount of nutriment, so that as sources of nourishment they are very bulky in character. The solids of both consist largely of cellulose, which belongs chemically to the carbo-hydrate group. A microscopical examination of vegetables or fruits shows the structure to consist of a network of cells. The walls of the cells and the connecting structure are composed of cellulose. This substance is insoluble in hot or cold water, and can only be rendered soluble in the slightest degree by boiling it in weak acid. The tendency of cellulose is to become hard with the increasing age of the plant until it becomes quite woody in character. For this reason young vegetables are more easily digested than old ones. An exception must be made in the case of potatoes. Old potatoes are more easily digested than young ones, because the tubers are storehouses of starch, and, if the old potatoes are thoroughly cooked, the rupture of the starch grains gives the potato a less dense character, so that it is more easily broken down by the teeth and by the mechanical action of the stomach.

With regard to the cellulose of fruits it is found to be lessened by cultivation, so that wild fruits contain the largest amount, and the amount present in any unripe fruit is again decreased during the process of ripening. When fruit is cooked, the acids act upon the cellulose and help to break it down, so that cooked, ripe fruit is the most easily digested form in which it can be served.

Herbivorous animals can digest cellulose, but it passes unchanged through the human intestine. In spite of this it is not useless. The presence of cellulose increases the bulkiness of food and affords a natural irritation to the intestine, so that peristalsis is increased and the accumulation of *debris* is prevented. Hence the need of a daily supply of fruit or vegetable to the healthy body, and the special value of such food in overcoming constipation.

The greatest value of vegetables is on account of their mineral matters, and of fruits on account of the mineral matters and sugar, so that it is well to consider them separately since they differ in composition and character.

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