possibility of converting waste material into valuable food products.

In view of the interesting results obtained in Germany during the recent war, on the action of alkalis on chopped straw, this matter is well worthy of a thorough study. In a recent lecture by the writer to the Syracuse Section of the American Chemical Society on "The rôle of alkali in the future development of the cattle food, cellulose, paper-pulp and liquid fuel industries," attention was drawn to the fact that experiments carried out at the behest of the German War Office show that by the simple process of boiling chopped straw for three hours with a one per cent. solution of sodium carbonate a 75 per cent. yield of material is obtained, of which 75 per cent. is digestible, and this in spite of the relatively high lignin content. A full account of this work is to be found in the recent pamphlet by Hans Magnus entitled, "Theorie und Praxis der Strohaufschliessung," published by Paul Parey, Berlin, 1919. Further information and additional references are to be found in the recent work of Hans Pringsheim, "Die Polysaccharide," Berlin, 1919.

It would seem that the treatment with soda ash is peculiarly applicable to American conditions and offers to the individual farmer the possibility of obtaining a cheap cattle food from such waste materials as chopped straw, ground corn cobs, etc., by the use of a chemical product with which he is familiar and employing only the simplest type of machinery. The resulting material when mixed with molasses apparently yields a profitable and palatable cattle food of high nutritive value.

Lantern slides have been made of the various tables quoted in the pamphlet by Magnus, and the writer will be pleased to loan them to any one interested in lecturing on this subject.

HAROLD HIBBERT
YALE UNIVERSITY

BUTYL ALCOHOL AS A REAGENT IN HISTOLOGY

PROFESSOR GRIFFIN'S article in SCIENCE for March 10, recommending the use of isopropyl and methyl alcohols for histological work, impels the writer to call attention to the practicability of using butyl alcohol, as recently suggested by Larbaud,[1] for similar purposes. Among the advantages claimed for this reagent are that it obviates difficulties due to the presence of slight amounts of water in so-called "absolute" ethyl alcohol, and that it does away with the contraction and hardening due to xylol, since butyl alcohol is a solvent of paraffin and therefore takes the place of xylol or chloroform as well as of the higher alcohols. As butyl alcohol does not mix readily with water, Larbaud recommends a mixture of equal parts of butyl and 95 per cent. ethyl alcohols in appropriate dilutions for the lower grades in the dehydrating series. There seems to be no *a priori* reason why a mixture of butyl and methyl alcohols would not serve equally well. The writer has used Larbaud's methods, with slight modifications, for the dehydration and infiltration of fungus tissues for cytological study, with entirely satisfactory results.

GEORGE W. MARTIN
HULL BOTANICAL LABORATORY,
UNIVERSITY OF CHICAGO

GENETICS OF THE VIENNA WHITE RABBIT II.

IN SCIENCE for March 10, I described the genetics of a variety of white rabbit having colored eyes, which I supposed to be identical with the variety known in Europe as Vienna White. This variety I had synthesized by crossing albinos carrying the gene for yellow coat, with chinchillas, and I showed the white variety with colored eyes to be genetically a "yellow chinchilla." Since writing that article I have been able to obtain from Europe a pair of Vienna White rabbits and I find that, though they look like my synthetic white rabbits, they breed very differently. When crossed with yellow rabbits, they produce not *yellow* young, as my synthetic whites should do, but blue, black or gray young, according to the genetic constitution of the yellow parent, and these young are invariably *Dutch-marked,* pre-

[1] Larbaud, Mlle.: Nouvelle technique pour les inclusions et les préparations microscopiques des tissues végétaux et animaux. *Comptes. Rend. Ac. Aci. Paris,* 172: 1317-1319. 1921.