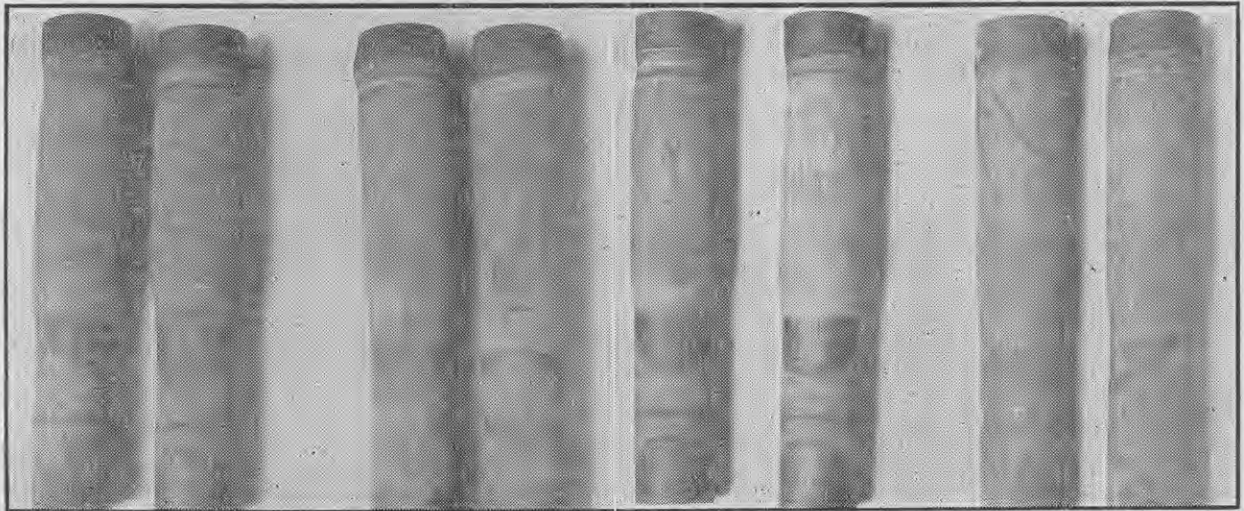


CLEANING MILKING-MACHINE RUBBERWARE



Left—Soft inflations before being treated by soaking in a 5 per cent. caustic soda solution. The bulges were caused by absorption of fat. Right—The same inflations after treatment. The removal of fat has also removed most of the bulge.

Group	Weight Before treatment	Weight in grammes After treatment	Reduction by fat extraction
1A	41.03	39.30	1.73
1B	41.05	39.50	1.55
1C	41.45	39.70	1.75
1D	42.20	40.80	1.40
		Average	1.61
2A	41.70	39.00	2.70
2B	41.65	39.01	2.64
2C	42.50	40.05	2.45
2D	41.50	39.03	2.47
		Average	2.57
3A	41.35	39.04	2.31
3B	41.47	39.00	2.47
3C	41.35	39.02	2.33
3D	41.00	39.00	2.00
		Average	2.28
4A	42.20	39.03	3.17
4B	42.09	39.07	3.02
4C	42.12	39.06	3.06
4D	42.18	39.04	3.14
		Average	3.10

The strong caustic treatment, as well as extracting fat, also reduced the sizes of the inflations. Results for

Group 1 in the table below show the superiority of caustic soda cleaning over other methods for conserving rubberware and giving better and quicker milking. The results prove that absorption of fat is the cause of inflations increasing in length and circumference so that they become slack and milk less quickly and efficiently.

Caustic Soda Method Proved Best

More than 30 years of experience has shown that the best way to keep the inflations and other parts of a milking machine in good hygienic condition is to apply twice daily the caustic soda-boiling water method recommended by the Dairy Division. The conclusion to be drawn from the trial described is that this method also ensures that the inflations are maintained in the best possible condition to give long and efficient use.

The inflations used were all new and the trial was carried out on the property of an efficient and reliable farmer who agreed to bear with the inconvenience caused by the use of four different cleaning methods.

Many different kinds of detergents have been manufactured and marketed, but experience under all conditions has shown that caustic soda used properly is the best cleaner, because its regular use with boiling water removes nearly all trace of fat.

Three good reasons why milking-machine rubberware should be conserved are that a perished surface in rubber harbours bacteria and provides intense contamination; that such a condition may assist the spread of mastitis; and that inflation rubbers give quicker milking if they retain their tension.

BOOK REVIEW

"The Draining of Farm Lands": A. W. Hudson and H. E. Hopewell

THE authors of "The Draining of Farm Lands," A. W. Hudson, Head of the Soils and Husbandry Department, and H. E. Hopewell, Lecturer in Soils, Massey Agricultural College, have prepared a very complete text on the principles and practice of thorough land drainage. Of particular importance are the sections dealing with surveying and levelling, mole ploughs, and ditching and tile-laying machinery.

The use of machinery should now replace hand work in thorough land drainage on farms, and machines can function properly only on the basis of carefully predetermined grades. This book gives a thoroughly practical approach to the work of planning drainage systems, taking levels, laying tile drains, and drawing mole drains. It should be of great value to farmers, agricultural contractors, and farm extension workers.

—P.W.S.

Massey Agricultural College, Palmerston North. 10s. 6d. (paper cover); 16s. (linen cover).

Group	Length of Inflation (Inches)			Circumference at point of bulging (Inches)		
	Before treatment	After treatment	Reduction	Before treatment	After treatment	Reduction
1A	6 12/16	6 11/16	1/16	3 14/16	3 12/16	2/16
1B	6 12/16	6 11/16	1/16	3 14/16	3 12/16	2/16
1C	6 13/16	6 12/16	1/16	3 14/16	3 11/16	3/16
1D	6 12/16	6 10/16	2/16	3 15/16	3 12/16	3/16
2A	6 13/16	6 11/16	2/16	4 3/16	3 14/16	5/16
2B	6 12/16	6 10/16	2/16	4 4/16	3 14/16	6/16
2C	6 12/16	6 10/16	2/16	4 3/16	3 15/16	4/16
2D	6 13/16	6 11/16	2/16	4 4/16	3 15/16	5/16
3A	6 14/16	6 12/16	2/16	4 1/16	3 13/16	4/16
3B	6 14/16	6 11/16	3/16	4	3 13/16	3/16
3C	6 13/16	6 11/16	2/16	4 1/16	3 14/16	3/16
3D	6 14/16	6 12/16	2/16	4 1/16	3 13/16	4/16
4A	7 1/16	6 14/16	3/16	4 3/16	3 15/16	4/16
4B	6 14/16	6 11/16	3/16	4 2/16	3 15/16	3/16
4C	6 15/16	6 11/16	4/16	4 3/16	3 15/16	4/16
4D	7	6 12/16	4/16	4 4/16	4	4/16