must be kept in an airtight bottle. But, unless the air could enter the bottle, none of the solution would syphon over. The air so drawn into the bettle of standard solution, was therefore first made to pass through a small bottle of strong soda tinted with phenolphthalein.

This wash-bottle absorbs all the carbonic acid from the air before it passes into the standard solution, while the moment the solution in the wash-bottle loses its power of absorbing carbonic acid, it also loses its colour. This was found to work admirably, and the strength of the standard solution remained unaltered until used up.

The syphon tube containing the standard solution was attached to the bottom of the burette by $a \rightarrow joint$, and the flow of the solution was stopped by a pinch-cock acting on a piece of indiarubber tubing, which connected the syphon and - j joints. (Fig. 2.) Upon opening this pinchcock, the standard solution flows into the burette and carries up the float. When the line on this



Fig. 2.-Burette Arraugement.

float corresponds with the first mark on the butette, the pinch-cock is closed. The burette is now full.

The tests are then made exactly as above described.

Not only has the acidity apparatus enabled me to obtain considerable insight into the chemistry of cheese-making, but its use is no longer confined to mere purposes of investigation. It has been placed upon the market, and there are many cheese makers now employing it daily. The evidence which I have received from cheese-buyers tends to show that its use has resulted in a considerable improvement of the cheese made, not only as regards quality, but also as regards uniformity. The use of the acidimeter might be taught with advantage in the schools of every county where cheese-making is carried on.

(To be continued.)

ROOTS FOR COWS.

ED. Hoard's Dairyman :- There is, unquestionably, no food that can be more healthful, appetizing, and at the same time act as a corrective for the system generally, than a liberal allowance of good fresh beets, (particularly Tankards), and while we are making use of the corn crop more largely as the seasons go by (having this year over twenty-five acres all told) and not having a silo, we are free to say, that just as our stock of experience in feeding is added to, in just that same proportion does our appreciation of that great succulent food, mangels, increase. And although not yet being quite far enough along, as we thing, to make use of the silo, and for which I have all due regard, I still take the broad ground, though I were using ensilage, and seeking to build up a fairly large herd of botter making cows, (as I am doing, by having at the head of my herd a thoroughbred sire of the best butter breed strains,) that I would then still continue to grow and feed mangels, for the sole purpose, if for no other, than that of maintaining that degree of health and vigor on the part of the dam so necessary for the transmission of perfect dairy qualities to the offspring. For I am quite certain, judging from observation close by home, and the experience of some large dairymen, who have been feeding ensilage for a long time, that it is fact, that the varying forms and changing conditions of ensilage, from year to year, contain acid to that extent (even though fed in connection with dry feeds,) that the cow's digestive and birth-giving organs and functions cannot fail of becoming somewhat impaired, where the dam is kept till old age,