Ammonia, free or saline:
Grains, ·2156 per gallon.
M.G., 3 08 per litre.
Ammonia, albuminoid or organic:
Grains, ·0413 per gallon.
M.G., ·59 per litre.
Metals.—Iron, trace.
Hardness = 1·9 deg.
Nitrates, *nil.*

Microscope.

Entomostraca; Fragments of insects; Vegetable debris; Diatoms; Bacteria; Mineral particles; Infusoria; Acarina; Armed ovoid bodies.

Water sample No. 10½, from well dug into sandstone rock. Water used for domestic purposes and sometimes for cattle.

Water very slightly turbid, brilliant lustre, stale, woody (?) odour, little sediment.

Total solids, 4·5 grains per gallon.

Residue of a very light brown, became dark and then grayish.

Chlorine, 1·1 grains per gallon.

Ammonia, free or saline:
Grains, ·04004 per gallon.
M.G., ·572 per litre.
Ammonia, albuminoid or organic:
Grains, ·012048 per gallon.
M.G., ·172 per litre.
Metals, *nil.*
Hardness, 3 deg.
Nitrates, *nil.*

Microscope.

Scales of insects; Vegetable debris; Mineral particles; Infusoria (Flagellata); Ovoid bodies; Conferva.

M.—New Glasgow.

Water sample No. 14.

Water of good lustre, no odour, good taste, yields little sediment on standing.

Total solids, 7·5 grains per gallon.
Fixed do 5·5 do

Residue almost colourless, became brownish during incineration, and ultimately greyish.

Ammonia, free or saline:
Grains, ·02058 per gallon.
M.G., ·294 per litre.
Ammonia, albuminoid or organic:
Grains, ·00364 per gallon.
M.G., ·052 per litre.
Chlorine, 1·5 grains per gallon.
Hardness = 5·25 deg. (Clark.)
Metals—Iron, minute trace.
Nitrates present.
Oxidizable matter (organic):
·0336 grains per gallon.
·48 M.G. per litre.
Nitrous acid, *nil.*

Microscope.

Bacteria, Bacilli, Spirilla; Rhizopoda (Actinophrys, Amœba); Infusoria (Monas); Portions of Entomostraca; Mineral particles; Vegetable debris; Confervoid filaments; Anguillulæ.

To facilitate comparison the principal items of the several analyses are thrown into a tabular form as follows:—

No. of Sample.	Solids in Grains per Gall. Total.	Solids in Grains per Gall. Fixed.	Chlorine in Grains per Gall.	Ammonia in Milligrammes per Litre. Free.	Ammonia in Milligrammes per Litre. Albuminoid.	Hardness in Degrees (Clark).	Metals.	Nitrates.
1	2·5	.....	·35	·226	·203	3	Iron, trace.....	Nil.
2	3·0	2·5	·8	·08	·008	2·5	do slight trace.....	Nil.
3	2·5	0·0	1·9	1·1	·08	3·0	do present.....	Nil.
4	3·0	2·0	·8	·106	·16	1·5	do trace.....	Nil.
5	6·0	1·0	2·25	1·396	1·63	4·0	do present (manganese).	Nil.
6	20·0	11·0	0·5	·34	·26	4·0	do slight trace.....	Nil.
7	34·0	11·0	0·5	·08	·63	4·0	do minute trace.....	Present.
8	5·5	2·0	0·5	·16	·195	10·3	do	Nil.
9	6·5	4·5	0·5	1·01	1·12	14·9	do slight trace.....	Nil.
10	45·0	.....	1·1	3·08	·59	3·4	do traces.....	Nil.
11½	20·0	3·5	1·1	·572	·172	4·4	None	Nil.
12	7·0	.....	1·7	·33	·054	1·7	Iron, minute trace.....	Present.
13	4·5	.....	1·6	·451	·104	1·7	do	Nil.
14	7·5	5·5	1·5	·284	·052	5·25	do	Present.

REMARKS ON HERBAGE.

A careful examination was made of the herbage in the pastures and fields of the several farms visited. The principal grasses and clover, &c., of agricultural value were the native fescue grass, aira, timothy, red and white clover, oxeye, &c. Of noxious plants, the following may be noticed: Lobelia inflata, Kalmia angustifolia, Ranunculus acris, Polygonum hydropiper. The pastures throughout the district are remarkable for the large quantities of weeds growing in them. The most conspicuous herbaceous plants in many of the pastures (with a single exception to be presently named) were the native solidagos and asters, and other perennials that are usually avoided by the cattle, although not known to have injurious effects.

The most remarkable plant in the district is a European weed that has become naturalized around the town of Pictou, and in some cases fills whole fields to the exclusion of useful herbage. It is a tall biennial or short-lived perennial with divided leaves and large clusters of showy yellow flowers, in shape like those of the aster.

Its botanical name is *Senecio Jacobæa*.
English: Ragwort.
Scotch: Weeby.
French: Jacobée.
Italian: Herbe di Sanct Jacomo.
German: St. Jacobskraut. *

The range of this plant is to some extent coincident with the prevalence of the cattle disease, and many persons in the district believe that it is either the cause of the disease or is in some way connected with it. It is to be observed, however, that this plant is not uncommon in Britain and other countries in Western Europe, growing in pastures where it is left untouched by the cattle, and no evil effects have ever been attributed to it, so far as can be ascertained from a careful search through the writings of botanists and agriculturists of those countries.

Ergotised grasses were carefully looked for in the Pictou pastures, but none were found.

I have the honour to be, Sir,
Your most obedient servant,

GEORGE LAWSON, PH.D., LL.D., F.I.C.

A. W. H. LINDSAY, M.D., has acted as Laboratory Assistant during this investigation.

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* Mentzelii Index Nom. Plantarum, Berlin, 1682.

MILK AND BUTTER YIELD OF SCOTCH POLLED CATTLE.

Not long ago a Kansas newspaper said: "While we are willing to accord to the Polled Angus and Hereford a high place among the beef-producing breed of cattle, they are nearly worthless as milkers." This was an extreme expression of what seems to have been a widely-accepted idea of these cattle, especially among those who have had no direct acquaintance with the Angus or with the Galloways. That this belief is not justified by the facts will, we think, become a generally recognized fact, when an accurate knowledge of their performances at the pail and the churn shall have been made known. Unfortunately many of those who have had the best opportunities for observing these breeds have considered their milk as of little moment beyond the raising of a vigorous calf, and have made little if any effort to develop the milking qualities of their cows. Under these circumstances a lack of evidence upon this point is to be expected, yet there is some testimony showing that, in the volume and the quality of their milk, the cows of the Scotch polled breeds are at least equal to those of any other beef breed. They excel some others in giving enough milk to raise vigorous, large and hardy calves, unaided by a nurse even under very unfavorable circumstances of food and