analyzed, but is said to be highly efficacious as a local application to old sores, ulcers, or raw surfaces of any kind.

The following analyses of the two principal springs were made by Messrs. Potter and Riggs, of the Washington University:

ONE UNITED STATES GALLON CONTAINS:

Solids.	Montesano Spring. Grains.	Casco Spring. Grains.
Calcium carbonate	71.45	69.97
Magnesium carbonate	14.05	15.50
Calcium sulphate	32.37	33.93
Iron and alumina	.87	.75
Sodium hyposulphite	.74	.65
Calcium phosphate	Trace.	Trace.
Sodium sulphide	.34	.43
Sodium chloride	365.11	368.21
Potassium chloride	16.37	16.99
Magnesium chloride	35.91	34.41
Magnesium bromide	Trace.	.11
Magnesium iodide	.85	
Silica	.51	.67
Total	538.57	541.62
Gases.	**Cubic inches.**	**Cubic inches.**
Carbonic acid	46.43	43.20
Sulphureted hydrogen	1.40	1.60

Other springs at Montesano are the "Council," "Alton," "Pearl," and "Thorne" Springs.

James K. Crook.

MONTGOMERY WHITE SULPHUR SPRINGS.—Montgomery County, Virginia.

POST-OFFICE.—Montgomery Springs. Hotel and cottages.

ACCESS.—Viâ Norfolk and Western Railroad to Big Tunnel Station, thence by a narrow-gauge branch railroad direct to the reception house on the springs lawn.

This attractive summer resort is located in the Alleghany Mountains, at a level of over 2,000 feet above the tide-water. It is surrounded by the pleasing features which render the old Virginia mountain resort famous. The high elevation, cool and invigorating atmosphere, delightful scenery, romantic walks, and picturesque drives, together with an excellent and well-kept hotel, serve to make the Montgomery Springs a very desirable point both for the tourist in search of recreation or diversion and for the invalid who seeks to restore his health. Among the objects of interest in the neighborhood may be mentioned the Dudley Cascade, having a fall of ninety feet over a rugged cliff of solid rock. The falls are two and one-half miles from the springs and are reached by a lovely drive over a well-graded road along the banks of the Roanoke River. Twenty-one miles distant is the celebrated mountain lake, the next highest point in Virginia, having an elevation of more than 4,800 feet.

The waters of the springs issue from three bold sulphur fountains, and from a chalybeate and a freestone spring. They are gathered in handsome marble reservoirs surrounded by tasteful pavilions. Suitable arrangements for warm and cold sulphur baths are provided. A complete analysis of the water is wanting, but we have secured the following facts regarding their medicinal uses. The White Sulphur water contains sulphates and chlorides, the principal ingredients being the sulphates of sodium, calcium, magnesium, and manganese, with a considerable proportion of sulphureted hydrogen gas. It is used with much benefit in disorders of the liver and skin. It acts also upon the system as a mild laxative, a diuretic, and a diaphoretic. The water tends to relieve portal congestion and diminishes abdominal plethora. It is recommended by physicians in malarial affections of the spleen and liver, in rheumatism and gout, in incipient tuberculosis, and in chronic metallic poisoning. The chalybeate water contains a large percentage of carbonate of iron, and also the carbonates of magnesia, lime, lithia, and manganese, and a number of sulphates. It is used with much advantage in chlorosis, amenorrhœa, albuminuria, dyspepsia, and chronic diarrhœa, and other disorders. The average temperature of the water is about 50° F.

James K. Crook.

MONTREAL, CANADA.—Montreal (Latitude 45° 30′ N.; Longitude, 4 h. 54 m. W.), the commercial metropolis of Canada, with a population, including its suburbs, of 350,000, is picturesquely situated at the head of the ocean navigation of the St. Lawrence River, here nearly two miles wide. The city is built on a series of natural terraces which rise from the river's edge till they culminate abruptly in Mount Royal, a volcanic hill 750 feet high about two miles northwest of that portion of the river termed the harbor.

The buildings are, for the most part, well constructed of limestone and brick, and while cool in summer are rendered by their double windows and doors warm and comfortable in winter.

The soil on which the city is built is composed of a series of marine clays and sand with some gravel terraces. While some of the streets in the lower portion of the city are narrow and ill-paved, all the more important thoroughfares are broad, well-paved, drained, and lighted and are kept cleanly; those in the upper part of the city are lined on each side with shade trees which in summer add much both to their appearance and to their pleasantness. The city is well supplied with water drawn from the St. Lawrence River. This water, except during the time of the spring floods and after heavy autumn rains, has a very slight tinge of color and contains only a small amount of solid matter, not more than from eighty to one hundred parts per million, with chlorides from one to two and one-half parts per million; its total bacteriological content is from 120 to 240 per cubic centimetre. Montreal has an excellent street railway; its parks are numerous; the largest, comprising over three hundred acres, occupies the greater portion of the sides and top of the mountain and is well laid out with carriage drives and bridle and foot-paths.

Montreal is one of the most important educational centres in Canada; it possesses two well-equipped universities: one English, which is Protestant but undenominational, the other French and under the control of the Roman Catholic Church. There are also numerous public and private schools, in both languages, of a high order of excellence. There are a public library, an art gallery, and several very fine private collections of paintings.

TEN YEARS (1885–94) MEANS OF BI-HOURLY TEMPERATURES AT MONTREAL. (DEGREES FAHRENHEIT.)

Month.	1 A.M.	3 A.M.	5 A.M.	7 A.M.	9 A.M.	11 A.M.	1 P.M.	3 P.M.	5 P.M.	7 P.M.	9 P.M.	11 P.M.	Means.
January	11.34	10.59	9.76	9.53	10.41	12.88	14.37	14.95	13.92	13.5	12.69	12.13	12.17
February	12.21	11.46	10.49	9.95	11.82	14.6	16.24	17.01	15.85	14.86	14.16	13.45	13.51
March	22.39	21.41	20.09	20.36	23.08	25.98	27.76	28.42	27.55	25.83	24.68	23.81	24.28
April	36.78	35.46	34.14	36.38	39.86	43.32	45.47	46.27	45.65	42.31	40.25	38.73	40.39
May	50.66	49.12	47.73	51.08	55.29	58.76	61.41	62.33	61.22	57.55	54.77	52.81	55.23
June	60.69	59.4	58.64	62.26	65.82	69.13	71.21	71.8	70.31	66.86	63.89	62.23	65.19
July	64.25	62.82	62.11	65.69	69.65	73.07	75.04	75.75	74.02	70.25	67.42	65.83	68.83
August	61.44	60.32	59.44	62.02	66.22	69.75	71.78	72.09	70.39	66.3	63.9	62.53	65.52
September	54.48	53.46	52.77	54.04	58.25	61.91	63.78	64.29	62.53	58.68	56.93	55.52	58.05
October	43.0	42.16	41.65	41.69	44.98	48.2	49.72	49.94	48.1	45.77	44.43	43.5	45.29
November	31.95	31.49	31.03	30.77	32.44	34.64	35.64	35.56	34.28	33.37	32.54	31.88	32.97
December	18.64	18.31	17.37	16.83	17.73	19.71	20.73	21.02	19.96	19.61	19.12	18.77	18.98

MEAN FOR TEN YEARS, 1890-99.

Month.	Thermometer. (Degrees Fahrenheit.) Maximum.	Minimum.	Mean daily range.	Mean relative humidity.	Per cent. possible bright sunshine.	Inches of rain.	Number of days on which rain fell.	Inches of snow.	Number of days on which snow fell.	Inches of rain and melted snow.	Number of days on which rain and snow fell.	Number of days on which rain or snow fell.
January	42.37	— 17.58	15.24	84.07	36.63	0.9	4.3	28.41	18.7	3.72	2.5	20.5
February	41.66	— 13.02	15.06	82.97	43.27	.69	3.2	23.52	15.1	2.98	1.9	16.9
March	46.6	— 1.29	13.96	77.81	47.99	1.53	7.6	18.94	11.7	3.68	3.2	16.1
April	70.07	17.05	16.96	67.16	51.78	1.7	11.4	3.56	3.7	2.05	1.4	14.2
May	80.49	33.97	18.25	68.14	49.59	2.98	16.6	....	....	2.98	....	16.6
June	85.95	46.19	17.39	71.71	52.94	4.1	15.6	....	....	4.1	....	15.6
July	88.54	50.56	17.06	72.59	59.96	3.94	17.6	....	....	3.94	....	17.6
August	86.04	48.26	16.13	74.47	56.41	4.25	16.9	....	....	4.25	....	16.9
September	82.21	37.43	15.8	76.94	53.15	3.14	14.8	....	....	3.14	....	14.8
October	70.7	27.71	13.52	77.27	40.68	2.45	14.9	2.5	1.6	2.48	1.0	15.5
November	56.46	9.01	12.63	80.13	28.87	2.13	11.1	10.68	9.7	3.24	2.8	17.9
December	45.91	— 8.64	14.19	84.22	32.88	1.46	5.5	22.68	16.6	3.29	2.2	19.9

The flora of the district is a very rich one and comprises not less than one thousand species of flowering plants. Several kinds of elm, maple, ash, and birch flourish in the district; also the oak, beech, butternut, poplar, willow, and lime trees.

The St. Lawrence River runs in a northeasterly direction through a broad alluvial plain, bounded on the north by the Laurentides, a range of undulating hills from one to two thousand feet high, composed chiefly of metamorphic rocks and holding in their valleys numberless small lakes and watercourses. Bounding this plain on the south are the northern spurs of the Adirondacks, the Green Mountains, and the Appalachians. Toward the centre of it rise several isolated hills of volcanic origin from five hundred to eight hundred feet high, composed chiefly of trap rock, their sides and summits for the most part well wooded. Four miles above Montreal the river tumbles in a series of small cataracts over a rocky ledge forming the "Lachine Rapids," and still farther up, at a distance of about nine miles, it widens into Lake St. Louis, six miles broad.

In Montreal and its neighborhood winter as a rule is most enjoyable and healthful. Snow falls about the latter half of November, and generally remains until the later weeks of March; only occasionally during all these months does a thaw occur for a few days. The air is dry and cold, but the cold is rarely extreme, and, owing to the dryness of the air, is quite endurable. The sunshine is bright, and there is an absence of high winds. During the bright and starlit nights outdoor sports of all kinds may be enjoyed; of these the most notable are sleighing, snow-shoeing, skating, skiing, and tobogganing. In spring the melting snow in the streets, with the accumulated dirt of the winter, is apt to render the last two weeks in March and the first two weeks in April decidedly insalubrious. Bright, warm weather generally sets in with the first week of May. The summer is warm and dry, but showers are sufficiently frequent to maintain the general verdure. The heat of the day is followed by an evening and night always sufficiently cool to permit of restful sleep. The autumn is bright, cool, and invigorating. The accompanying tables present the average meteorological data for the past ten years.

Montreal has connections by rail with all the important points on the continent, and is the terminal port of the Canadian steamship service to Europe, and of the several steamship lines which connect it with the summer resorts on the upper and lower St. Lawrence, the Gulf, the Lower Provinces, and Newfoundland.

Alexander D. Blackader.

MONTREUX.—The village of Montreux, in the Canton de Vaud, Switzerland, lies at the northeast corner of the Lake of Geneva (Latitude 46° 25′ 59″ N., Longitude 6° 55′ E.), directly opposite the opening of the Rhone Valley. Beside Montreux proper some twenty other villages and hamlets, lying close together at this point, are included in the district, or parish, bearing the same name; and it is all these places taken collectively which constitute the health station of Montreux. Of the other villages comprised within the district, Les Bassets, Clarens, Vernex, Territet, and Chillon are perhaps those most widely known. Glion, 1,000 feet above Montreux, and Les Avants, about 2,000 feet above Montreux, are also well-known health stations. The elevation of Montreux itself above sea level is 1,220 feet. The chief climatic characteristics of this district are its immunity from cold winds and the prevailing stillness of its atmosphere, both of which are due to the very exceptional degree of shelter afforded by the mountains which stand back of the district to the north and east. Montreux itself is the most sheltered of all the group of contiguous villages. "The indentation of the lake, which is here called the Bay of Montreux, is protected by the mountains around from the north and east winds, and in some degree from the northwest wind, so that it is said to be, with the exception of Bex, the most sheltered place in Switzerland. It is also the hottest of all the Swiss stations north of the Alps except Sion, but that applies only to the summer and spring, as Montreux is warmer than Sion in autumn and winter. The 'bise'—the cold northeast wind—is not nearly so much felt at Montreux as at Geneva and Morges; and it has been noticed, during the prevalence of a 'bise,' that it has been intensely cold at Geneva (temperature 14.3° F.) and at Morges (temperature 18° F.), while at Montreux (temperature 23.6° F.) the air has been almost calm and not disagreeably cold. There are also less variations of temperature at Montreux—a smaller range between the maxima and minima" (Dr. J. Burney Yeo, "Climate and Health Resorts"). To the "föhn" wind blowing up from the south, down the Rhone Valley, Montreux is much exposed. Dr. Yeo tells us that at Montreux "the air is very calm and still, the number of calm days reaching eighty-five to ninety per cent., whereas at Morges it only reaches thirty-three per cent., and it has been noticed that the lake is often calm from Vevey to Villeneuve, when it is agitated in the rest of its extent. But when the hot wind blows from the south, the *föhn*, here called the *vaudaire*, . . . makes the bay of Montreux very rough." The winter temperature of Montreux is moderately cold. Dr. Kisch, in Eulenburg's "Reäl-Encyclopädie," gives the following figures for the mean temperature of each of the seven months from October to April: October, 50.9° F.; November, 41.2° F.; December, 36.5° F.; January, 33.4° F.; February. 39° F.; March, 41° F.; April, 50.7° F. The mean temperature at the hours of 7 A.M., 1 P.M., and 7 P.M., in each of the four seasons, and in each of the seven colder months of the year; the mean temperature of the winter, of the spring, and of the year; and the mean and absolute maximum and minimum temperatures, all of them derived from seven years of observation, are given by Dr. Yeo, and are quoted below:

	7 A.M.	1 P.M.	7 P.M.
	Degrees.	Degrees.	Degrees.
October	47.0	56.6	49.0
November	38.7	47.5	41.0
December	34.3	41.5	35.9
January	31.8	39.7	33.9
February	35.0	44.0	38.1
March	37.0	45.2	39.7
April	46.0	57.6	50.4
Spring: March to May	46.6	56.4	49.4
Summer: June to August	61.7	72.7	63.7
Autumn: September to November	47.3	57.4	49.8
Winter: December to February	33.8	41.7	35.9

	Degrees.
Mean annual temperature	51.0
Mean winter temperature	36.5
Mean spring temperature	50.8
Mean maximum temperature (July)	77.0
Mean minimum temperature (January)	35.2
Absolute maximum temperature (July 8th, 1870)	89.0
Absolute minimum temperature (February 12th, 1865)	11.4

Dr. Kisch states that the nycthemeral range of temperature at Montreux varies from 12° C. to 16° C. (53.6° F. to 60.8° F.); but this statement is very surprising in view of the figures just quoted from Dr. Yeo. The mean annual rainfall is fifty inches; the number of rainy days in winter and spring is twenty-one, the total number of such days throughout the year being sixty (Dr. Yeo). Dr. Kisch puts the annual number of rainy days at seventy, and tells us that the mean relative humidity is 74.7 per cent.

Snow falls, of course, at Montreux, but how frequently and to what depth I do not know. In Flechsig's Bäder-Lexikon we are told that the snow melts rapidly, a thing which might readily have been inferred from the sheltered position of Montreux, freely exposed only to southerly and southwesterly winds. We are also told by the same authority that, despite the very considerable degree of winter cold and the occurrence of snow, there are, almost every winter, even in December and January, certain days during the warmer part of which an invalid can safely sit out in the open air for several hours.

As a rule, fogs occur but rarely during the winter season; yet they were frequent in the winter of 1875–76.[1] What remains to be said respecting the climate cannot be better told than by direct quotation from Dr. Yeo's admirable work on "Climate and Health Resorts."

"In an average winter a good deal of cold weather must be expected at Montreux, as its mean winter and spring temperature is some 5° F. lower than that of Ventnor, and 4° F. lower than that of Torquay; but in favorable seasons, on the other hand, a good many bright, clear, sunny days may be expected, and comparatively few rainy ones. In November there are often a good many cold, damp, and disagreeable days.

"In spring the weather is often very variable. There are, perhaps, some very fine days, and then a sudden and unexpected return of cold, with rain or snow; so that invalids need to take great precautions at this season. Patients often ascend to Glion at this period of the year. Few people spend the summer at Montreux on account of the heat, but the autumn is a fine season up to the middle of October, when storms of rain frequently set in and there is occasionally a passing snowfall. It is in the autumn that the grape cure is in active progress at Montreux.

"It is an advantage at Montreux to have two mountain stations of different elevations, such as Glion and Les Avants, so readily accessible; for it does happen during some seasons that there is much more sunshine to be found at the higher resorts than at the lower one, and this fact is easily ascertainable.

"The winter and spring climate of Montreux, it will be seen, is by no means a perfect one; it has, however, been pointed out, as a kind of compensation, that the hotels and *pensions*, which abound here, are very comfortable, and that if the weather out of doors is bad, the invalid can find good shelter and protection indoors."

With reference to this last statement of Dr. Yeo's, it is perhaps well to remark that Dr. Kisch[2] pronounces Montreux to be very inferior to Meran, in respect to out-of-door accommodations for invalids, such as parks (Anlagen), roads, and resting-places (Ruheplätze); he says that there is a lack of variety in the food provided, and that it is not especially nourishing (nicht besonders kräftig), and that those who stay long at Montreux, even in the autumn, are apt to suffer from *ennui*. Nevertheless, despite its climatic inferiority in many respects to many more southerly health resorts, the general excellence of its hotels and *pensions*, the moderate cost of living, and the facilities for good schooling which there exist, still combine to render Montreux an attractive place of winter residence to many families; and to these attractions must be added the surpassing beauty of the scenery. The view of the Savoy Alps, which rise like a wall on the opposite side of the lake, and of the grand, snow-crowned peaks which hem in the Rhone Valley, must be seen to be adequately appreciated.

Climatotherapy.—The climate of Montreux is said to be unsuited to cases of advanced pulmonary phthisis, accompanied by marked febrile symptoms [cases of phthisis with fever had best remain at home.—E. O. O.] or by free secretion, and also to nervous patients having a tendency to depression of spirits.[3] Dr. Yeo tells us that prolonged residence at Montreux is said to be serviceable in "cases of simple chronic laryngitis, of chronic laryngo-pharyngitis, of granular pharynx"; and that "all these chronic throat affections have a good chance of cure at Montreux, especially if they are, at the same time, submitted to local treatment by inhalation," etc. He includes in his list of cases, said to be benefited by prolonged sojourn at Montreux, "cases of recurrent bronchial catarrh or tendency to catarrh, as well as cases of chronic bronchial catarrh when not too inveterate or severe; persons with hereditary predisposition to consumption, and cases of chronic phthisis and early phthisis when the general health and strength are otherwise good and there is an absence of fever; cases of chronic pleurisy with suspicion of the commencement of phthisis, as well as cases of chronic empyema healing slowly; cases of cardiac valvular disease of rheumatic origin, to ward off bronchial catarrh and fresh rheumatic attacks, also cardiac neurosis, especially if induced by excess of tobacco-smoking."

For information concerning the "grape cure," which is practised during the autumn at Montreux, and at certain other resorts in Switzerland, and elsewhere in Europe, the reader is referred to the article on *Meran*.

Huntington Richards.

[1] J. Burney Yeo: Climate and Health Resorts.
[2] Article on Montreux, in Eulenburg's Real-Encyclopädie, vol. ix.
[3] Robert Flechsig: Bäder-Lexikon, art. "Montreux."

Les Avants and Glion.—[These two resorts are in such close proximity to Montreux that mention may be made of them in this connection. Les Avants is 3,230 feet above sea level, and is reached from Montreux by a mountain railway to Glion and from thence by carriage road; or all the way from Montreux by road, in an hour and a half. It is both a summer and a winter climatic station The plateau upon which this resort stands is sheltered from the north and east by mountains, which are well wooded, and is open to the south. The climate is a mild, slightly tonic, mountain one. "The air is pure and free from dust; the heat is modified in summer by the woods and the lakes, and in winter the sun is very powerful, and the sky almost free from cloud." . . . "Great and frequent changes of temperature are, however, of not infrequent occurrence, and prove very trying to consumptive patients" (Loetscher, "Handbook to the Health Resorts of Switzerland").

It snows about twenty-eight days in winter, the sky is overcast forty-seven days and quite clear during sixty-seven. The air is very dry. The meteorological data given under Montreux are applicable to Les Avants, allowance being made for the difference in elevation. The snow generally disappears by the middle of March, and by April the vegetation is well advanced. By May the flowers are in the meadows. For such cases as require a milder climate and lower elevation than the higher Alpine resorts, such as Davos, St. Moritz, Arosa, Leysin, etc., Les Avants can be recommended. The "Grand Hôtel des Avants" affords excellent accommodations, at moderate prices. The cases to which this climate is applicable are incipient pulmonary tuberculosis without active symptoms, in individuals of good general health; bronchitis with scanty expectoration, tardy convalescence from pleurisy and pneumonia, asthma of a neurotic origin; anæmia, chlorosis, and scrofula.

Glion, 2,300 feet high, is reached by a cable railway from Montreux in six minutes. It is situated on a mountain spur, affording from its Rigi-like terrace "a magnificent view, surpassing in extent all others on the bay." It is well protected from the north and east winds, and enjoys a comparatively mild winter; hence it is adapted for a winter-cure station of moderate elevation, although it is most frequented in spring, summer, and autumn.

Like Montreux it has a milk and grape cure, as well as a Terrain cure. It is known for the purity and dryness of its air and its equable temperature. In the height of summer it is a very popular resort for visitors from Montreux. The climate of Glion is suitable for much the same class of cases as that of Les Avants. It is especially recommended for nervous patients, convalescents, the early cases of pulmonary tuberculosis, and weakly children. There are a number of good hotels and pensions, and during the summer there is an English church service.

Still higher than these two resorts is the Grand Hôtel de Caux (3,610 feet), open all the year round, less sheltered than Les Avants. (The mean annual temperature is 43° F., and relative humidity 55. Fog and mist are rare; and as in the other altitude resorts one can sit out in the sun in the depth of winter.) At the terminus of the mountain railway is the Rochers de Naye (6,470 feet), with a hotel open during the summer months.

Edward O. Otis.]

MONTVALE SPRINGS.—Blount County, Tennessee.
Post-Office.—Montvale. Hotel and cottages.
Access.—From Knoxville viâ Knoxville and Augusta Railroad, to Maryville, the present terminus of the line; thence by stage line to springs. The springs are twenty-five miles south of Knoxville. This resort is located at the foot of the Chilhowee Mountains, 1,300 feet above the sea level. The springs have been celebrated in East Tennessee for a period of fifty years or more, and long before the Civil War the location was a fashionable summer resort, where people of this and other States found health and pleasure during the heated term. From year to year extensive improvements have been made, and now we find among the picturesque mountains a watering-place supplying about everything which goes to make up a healthful and agreeable refuge from the summer heat of the semi-tropical Southern States. The big hotel building, with its seven gables, is located in a romantic spot, and around it cluster forty neat cottages, giving the place the appearance of a charming little village built among the forest trees. Walks, fountains, beautiful brooks, and flowers are found on every side, and with the evergreen mountains for a background form a picture of great loveliness. Fronting the hotel is a large park, with broad, smooth drives and walks, and grassy lawns, affording ample scope for outdoor diversions. Fountains, swings, hammocks, and rustic retreats are scattered here and there. The hotel is supplied by a system of water-works from the "Sweet William" Spring. The medicinal springs are the "Great Chalybeate" Spring, nearest the hotel, and the "Black Sulphur" Spring, on the road near Montvale. The following analysis of the Chalybeate Spring was made by Prof. S. B. Mitchell:

One United States Gallon Contains:

Solids.	Grains.
Calcium carbonate	13.26
Iron carbonate	2.40
Sodium sulphate	4.51
Calcium sulphate	74.21
Magnesium sulphate	12.00
Sodium chloride	1.96
Aluminum oxide	.50
Total	108.84

In addition to its ferruginous tonic effects this water also acts as a saline aperient. It has long been recommended as a safe and reliable remedy for many of the protean ills included under the name of dyspepsia. It is also valuable in uric-acid states, especially in those characterized by genito-urinary manifestations. The Black Sulphur Spring contains 109.30 grains of solids to the United States gallon, of which the sulphate of magnesia (grains 17.07) and the oxide of iron (grains 1.19) are the most important.

James K. Crook.

MOODYVILLE MINERAL SPRINGS.—Pottawatomie County, Kansas.
Post-Office.—Moodyville. Hotel.
Access.—Viâ Kansas Central Railroad to Blaine, thence four miles southeast to springs. These springs are three in number, and flow about twenty-five gallons per minute. According to an analysis by Prof. J. R. Eaton, of William-Jewel College, Missouri, the waters contain the following ingredients:

Calcium carbonate.	Sodium chloride.
Magnesium carbonate.	Iron (probably as carbonate), a trace.
Magnesium sulphate.	Silica, alumina, and organic matter, a small amount each.
Sodium sulphate.	

Free carbonic acid gas.

The water is used in dyspepsia and disorders of the bowels, liver, and kidneys.

James K. Crook.

MOONSEED, CANADIAN.—Menispermum. Texas sarsaparilla, Yellow parilla. "The rhizome and roots of *Menispermum Canadense* L. (fam. *Menispermaceæ*)" (U. S. P.). This is a prostrate and twining herbaceous vine, with excentrically peltate, angled or lobed, alternate leaves, and axillary panicles of pale-yellow, dicœcious flowers.

Moonseed arises from a long, slender rhizome, which, with its adhering roots, is the official portion. It is dried in flexible, tough pieces, a metre or so in length, and about five millimetres in thickness, with a finely shrivelled brown bark and yellow section. Odor slight, taste bitter. It grows in most parts of North America, and was introduced into medical use, thirty or forty years ago, as a substitute for sarsaparilla in "scrofulous affections," etc. There is no evidence to show that it is anything but an inferior bitter tonic. Its composition —*berberine* and the white, crystalline, bitter alkaloid *menispine*, soluble in water—recalls its near botanical relatives, *columbo* and *pareira*. The dose is 4 to 8 gm. (℥ i.–ij.), and a fluid extract is official.

The family *Menispermaceæ*, comprising about a hundred species, mostly woody climbers of tropical regions, is notable for the great number and variety of its bitter principles, on account of which a large number of its species are used as simple bitters. Among the most important of these are, in India, various species of *Tinospora*, especially *T. cordifolia* Miers, and the wood of *Coscinium fenestratum* Colebr., the latter known as Indian calumba and largely used in India as a calumba substitute. In South America, several species of *Abuta*, especially *A. rufescens* Aubl., and a number of species of *Cocculus* are similarly employed.

Henry H. Rusby.

MOORMAN MINERAL WELL.—Washtenaw County, Michigan.
Post-Office.—Ypsilanti.
The waters of the Moorman Well are used to supply the Occidental Bath-house, which is situated near the