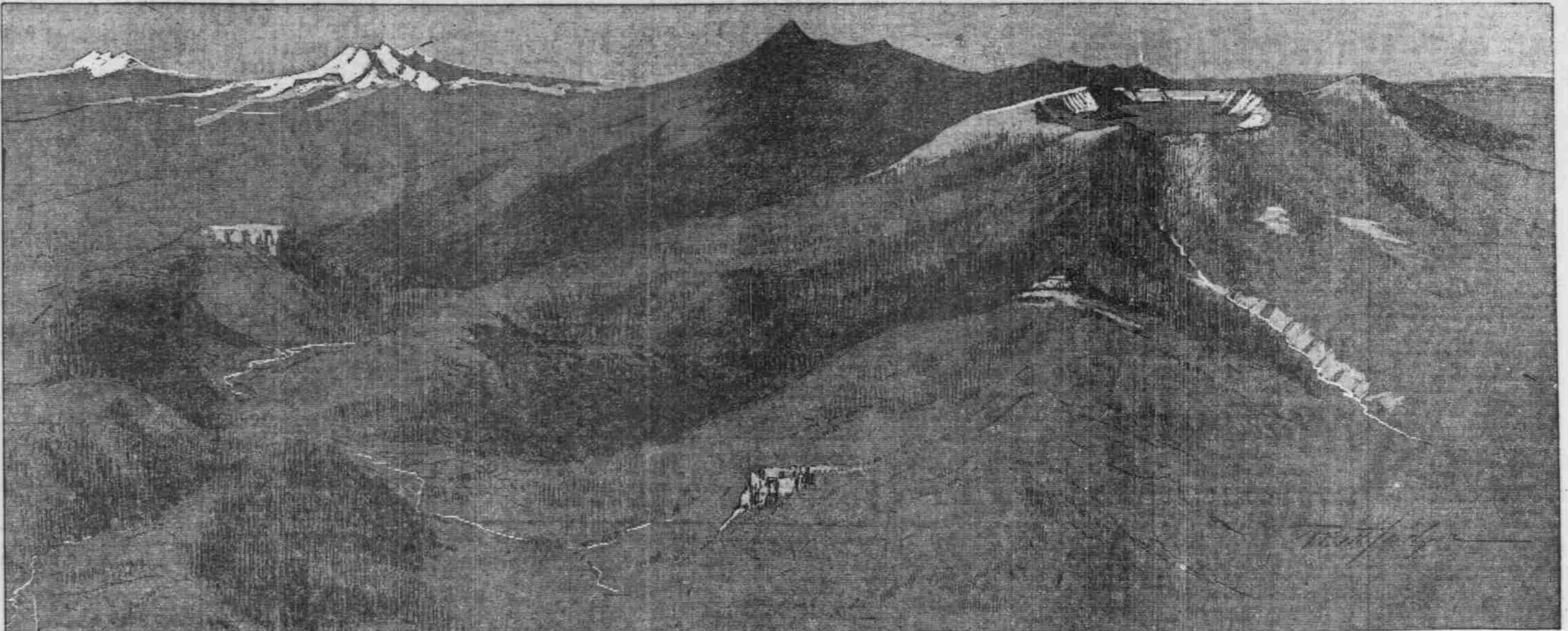


# HOW CRATER LAKE WAS FORMED



## NO DOUBT THERE WAS A GREATER UPHEAVAL THAN AT MOUNT PELEE

That the Crater Lake region has been made a National Park by the act of the Fifty-seventh Congress is a source of gratification to the Mazamas, who were the pioneers in the movement, and is a tribute to the perseverance of Will G. Steel, to whom the success of the movement is largely due. Among those who are well informed as to the seven greatest scenic wonders of the United States, there is no doubt but that there would be a substantial agreement upon the following: Niagara Falls, the Natural Bridge in Virginia, the Mammoth Cave in Kentucky, the geysers of the Yellowstone National Park, the Grand Canyon of the Colorado, the Yosemite Valley of California, and the Crater Lake region of Oregon. Many of these have rivals, but there has not been discovered anywhere in the United States a lake which even remotely suggests comparison with Crater Lake. The very fact of its remarkable origin suggests a forcible reason why such a wonderful feature of natural scenery should be made accessible to the tourists of the United States and become the center of one of the most attractive of the Nation's parks.

To the casual visitor, even, who makes his pilgrimage thither, the fact that before the lake existed, a snowy mountain stretched its peak skyward and vied in its beauty with its sister peaks, is a source of interest and wonder. The moderns who pitch their tents near the sides of the lake will have in their minds' eyes a picture of the terrific eruption of Mount Pelee, and they will listen in wonder to the scientists who tell of the outbreaks of Mount Mazama in prehistoric times. They will feel a sense of awe when they realize that subterranean fires melted away that grand peak until it fell into the cavernous depths, leaving the deep pit that is now filled with clear water, to 4000 feet at its greatest depth. The ancient phenomenon would be paralleled if the Titanic forces of nature would truncate the peak of Mount Hood at Crater Rock, leave the steep sides, hollow out the surface of the top of the cone, and fill this pit with one of the most beautiful lakes in the world. The prehistoric observer who climbed the summit of Scott Peak, 912 feet high, a few miles east of Crater Lake, would have seen a snow peak, like Shasta or

Hood, instead of the picturesque lake of today. Picture his surprise if he were to return and sweep the horizon for a view of the mountain of his day, to find that it had literally dropped out of sight. Geologists who have climbed about the slopes of Crater Lake have made estimates of the height of this peak, then unnamed, but now dignified by the name of Mount Mazama. They have formed these estimates by comparison. Mount Shasta and the rim of Crater Lake have been found to be of equal diameter at an altitude of 8000 feet, and being composed of essentially the same lavas, and being formed in the same way, the conclusion has been reached that they would rise to nearly equal elevations. The gentler slopes about the rim, however, suggest that Shasta was the higher of the two peaks.

In discussing the question of the disappearance of the peak, J. S. Diller, of the United States Geological Survey, says: "The problem at once arises, How was this vast mountain, nearly six miles in diameter and possibly 5000 feet or more in height above the present rim of the lake, removed, and the stupendous pit now occupied by Crater Lake produced? If it was blown out by an explosion, we should find an enormous rim of fragmental material commensurate with the basin; but if it sank by escape of its molten interior through a lower outlet, the rim would be small and composed of imbricated and overlapping sheets of lava and fragmental material. In fact, the rim is small and composed in large measure of solid lava sheets. It is evidently the peripheral part of the mountain's base, and not due to accumulation at the time the basin originated. Major C. E. Dutton, who made a special survey of Crater Lake, compares it to Kilauea, of Hawaii, whose origin he attributes to the subsidence of the material in molten state, owing to its escape from some lower level. After the volcanic peak, Mount Mazama, had virtually destroyed itself by the fierce heat of its hidden fires, and been engulfed in the abyss, the volcanic activity continued at the bottom of the pit. Wizard Island, which rises 965 feet above the surface near the western border of the lake and forms a picturesque bit of the scenery, is a small volcano compared to the size of its predecessor. Although the freshness of the lava and the absence of erosion indicates that the volcano was active in comparatively recent geologic times, yet the presence of an large growth of fir trees proves that the eruption must have occurred centuries ago.

## STORIES ABOUT PEOPLE

**Governor Flower's Candidacy.**  
(Brooklyn Eagle.)  
NOW that the New York Democrats are hopefully considering the possibility of electing a Governor in November, the following stories concerning the last Democratic Governor of the state will be of interest:

In the Summer of 1881, when tickets were being liberally manufactured in advance of convention, Roswell P. Flower was met in Washington by a prominent Brooklynite, who said to him:

"Mr. Flower, a good many people in our city think the nomination for Governor is yours for the asking. Now, while the Brooklyn Democracy is solidly for Chapin, it does not believe that he can be nominated; therefore, we'd like to know just how you regard the talk of a nomination for yourself. Are you encouraging it?"

Flower's eyes twinkled a moment, and then he replied in this direct fashion: "Up Watertown way there was a man who got himself arrested for dog-stealing. The Judge eyed him severely and said:

"How did you come by that dog?"  
"Why, your honor, he just followed me home."  
"Did you try to stop him?"  
"I did."  
"How did you do it?"  
"Well, I yelled and threw things at him."  
"What did you throw?"  
"Crackers and sugar."  
"So," laughed the Brooklyn Interviewer, "you are the dog-stealer and—"

"And the nomination is the well, good day," and the next Governor of New York disappeared from the scene.

When Flower was a small boy he fell into an arhole while skating. A companion fished him out with much difficulty. Quite a crowd witnessed the life-saving exploit, and applauded it. In due time Flower was informed of the incident, and started out to thank the rescuer.

"My boy," he began, "it was a very gallant act, and one for which my son and I will always thank you as long as we live. I am a poor man, and can't reward you as I should like, but remember that I have a high appreciation of your deed. It was a very brave act, and you do not see how one so small as you dared to risk your life in doing it."

"Well," muttered the youthful hero, "he had my skates on and I doesn't lose 'em, or dad would have licked me."

**Attack on Speaker Henderson.**  
Temperance papers are attacking Speaker Henderson because he has assumed responsibility for the House restaurant with its bar.

Some time ago a representative of a Chicago temperance journal asked an interview with Mr. Henderson at a moment when he was presiding over the House. The interview was, of course, refused, but the correspondent succeeded in getting his card to the Speaker with this inquiry scribbled on it:

"Who is responsible for the House restaurant?"  
Seizing one of the slips used for voting purposes, Mr. Henderson wrote upon it: "I gave the permit," and this, with the printed signature, "D. B. Henderson," at

tached, was sent back to the importunate caller.  
And now this harmless and perfectly truthful bit of paper has been lithographed and copies are being scattered broadcast with the information that the Speaker of the House of Representatives runs a saloon.

**History Set Right.**  
President Henry Smith Eriehett, of the Massachusetts Institute of Technology, in responding to the toast "Science," at the Columbia alumni dinner, told this apropos story:

"Science," he said, "is not a word to conjure with. In a Boston school the other day a teacher said to a small boy: 'Who won the battle of New Orleans?'"

"Why, Jim Corbett, of course," was the answer.  
"How did it happen?" asked the teacher, not plucking Corbett's name, and thinking to set the boy right.

"He won," was the prompt reply, "because he had more science than the other guy."

**When O'Reilly Was a Sergeant.**  
Weird are some of the tales told of Captain Miles O'Reilly what time he was a Sergeant over in the old Twelfth Precinct, now known as the Fifty-second. It was in those days that Captain Folk, now dead, used to say of him, "Queer chap, O'Reilly. Don't drink, don't smoke, don't chew. He can't be good either for man or beast."

One day a citizen of the neighborhood came to the station-house with a complaint against some boys who had disturbed the peace as well as endangered windows by playing ball in a vacant lot. O'Reilly was told to look into the matter. When the Sergeant visited the lot in question he discovered that across one corner of it teamsters were hauling loads of sand dug from a near-by cellar. Now, O'Reilly was ever politic—in some things. He remembered his own boyhood days and declined to administer the law harshly in this particular instance.

"Say, you," he yelled at the foreman of the teamsters, "come here." The foreman came with a query in his eyes. O'Reilly laid his hand on his shoulder and talked confidentially in his ear. The foreman smiled and called six of his truckmen about him. He gave them some instructions, and within the next half hour six large cartloads of sand were strewn across the diamonded-field.

"You see," said O'Reilly, in explaining matters to the Captain, "I knew the boys would never take the trouble to level off all that sand, and while it stays there they can't play ball."

"You've a great head, Miles," was Captain Eyer's brief comment.  
After a while O'Reilly left the Twelfth and finally brought up in the Canarsie Precinct. While there he had under him a very laxy man who had never been known to make an arrest. One night, when Miles was on desk duty, there was a call for the wagon sent in from a signal box on the post patrolled by the laxy officer. The wagon was rushed off and in due time returned with a common drunk.

"So Blank has made an arrest at last," mused the Sergeant as he took the victim's pedigree; then turning suddenly

upon the "wagon man," who had lugged the prisoner into the station, he said: "Now tell me the truth. Did Blank take this fellow to the signal box or did he take Blank there?"  
The reply of the wagon man has not been recorded.

**Out of the Mouths of Babies.**  
A story is told by Francis Blake Lee, the historian, editor of "The History of New Jersey," that should delight collectors of literary humor. It is to Mr. Lee that Halle Ermine River, the novelist, has dedicated her new Revolutionary romance, "Hearts Courageous," and naturally the Lee family has been much interested in the popularity the story is winning, and has discussed it often in the family circle.

Mr. Lee has a 3-year-old daughter, whose precocities are a never-failing source of delight. Her father the other evening heard her singing in her baby key and with huge enthusiasm, a song strangely familiar, and yet one that he could not exactly place.

"Hullo," he called, "what is that you are singing?"  
"Why, papa?" she exclaimed. "Don't you know that? That's 'Hearts Courageous, clef for me, let me hide myself in thee.'"

**THE TWO EXTREMES.**  
**They Were Revealed by Answer to a "Boy Wanted" Ad.**

Washington Star.  
The "Boy Wanted" sign had been on exhibition in the front showcase of the gent's furnishing store all the morning, and the proprietor of the plant, a burly, hearty, out-and-out, somewhat slangy individual, had had troubles of his own in examining juvenile applicants who presented themselves for the job.

They had all been of such a truly good stamp as to cause the proprietor of the store the most intense weariness. They all had that scrubbed, sheepish look, such as is worn by boys whose mothers send them out to look for Summer vacation work.

And they all talked as if they'd been tipped off by their mothers what to say in asking for a boy's job.

Not acting their own parts, therefore, it was impossible for them to show up otherwise than as sort of sneaky, hang-dog and underhand.

They were too infernally willing to work hard, and for long hours, it struck the man who wanted to employ an errand boy, and they were too unassuming in their expressed desire to "help out at home," and they were a whole lot too well primed in their assertions that they just naturally hated to be idle during the school vacations.

Finally, about toward noon, a rather tough-looking young proposition, with a snub nose, freckled face, green eyes and a confident grin, walked in and applied for the job.

"And what makes you think you want a job, my little man?" inquired the boss.  
"Aw, 'cause I need de coin," was the reply of the freckled boy.  
"Oh, that's it? And what would you do with your pay, pray?"  
"Aw, blow it o' course—wot d'ye tink I'd do wit it, send it t' de heathen?"  
"And would you be willing to work

faithfully, from 7 in the morning until 6 in the evening, and not keep your eye glued to the clock all the time?"  
"Well, I'd do me work all right, but I'd want t' frame up me getaway w'en de whistle blew all right, at dat."

"In such kind did the green-eyed boy reply to the queries that were put to him by the boss of the store."  
"Well," said the latter finally, "I think, my son, I will give you—"

Right here, however, is the point where this story turns off from the main road of expectation. "I think I will give you about a cent," said the boss, "and to sort of ride some of the toughness out of you," and inside of just nine seconds from the boss' last word the freckle-faced boy was on the sidewalk, rubbing his person, and a whole lot of his exterior toughness departed.

There's a medium stratum in boys, just as there is in a heap of other things, and by evening the gent's furnishing man had engaged a lad who was neither goody-goody nor a ruffian.

**FROG FARMING IN CANADA.**  
The Industry Officially Reported to Profitable and Growing.

New York Sun.  
Frog farming as an industry is assuming large proportions in many parts of Canada. Not only are large shipments of frogs' legs made from this country to the United States, but there is a growing demand for the luxury in many of the large centers of the Dominion. One of the most successful frog farms is in Ontario. Last year it produced 5000 pounds of dressed frogs' legs and 7000 living frogs for scientific purposes and for stocking other waters.

The Deputy Commissioner of Fisheries for Ontario reports that in the past year a number of applications were made to the government for leases of land suitable for this industry. No licenses were, however, granted, and it was found that the territory concerned was already being farmed by a number of people. It is the eastern bullfrog, *Rana catesbeiani*, which reaches a length of more than eight inches. It begins to breed at the end of three years, is very productive and reaches a marketable size in four or five years.

Only the hind legs are marketed, and they average half a pound a pair in weight. They are worth 20 cents a pound, at times to the producer, and the American dealers take as many as Canada can supply.

**The Daffodils.**  
William Woodworth.  
I wander'd lonely as a cloud  
That floats on high o'er vales and hills,  
When all at once I saw a crowd,  
A host of golden daffodils,  
Beside the lake, beneath the trees,  
Fluttering and dancing in the breeze.

Continuous as the stars that shine  
And twinkle on the Milky Way,  
They stretch'd in never-ending line  
Along the margin of a bay:  
Ten thousand saw I at a glance,  
Tossing their heads in sprightly dance.

The waves beside them danced, but they  
Outdid the sparkling waves in glee—  
A Poet could not but be gay,  
In such a jocund company!  
I gazed—and gazed—but little thought  
What wealth the show to me had brought;

For oft, when on my couch I lie  
In vacant or in pensive mood,  
They flash upon that inward eye  
Which is the bliss of solitude;  
And then my heart with pleasure fills,  
And dances with the daffodils.

**Aberdeen.**  
Miss Nora Anderson, of Salem, Or., is visiting her sister, Mrs. George A. Todd, Mr. and Mrs. Charles R. Bell left Wednesday for a visit to Seattle, Everett and Edmonds.  
Miss Dorothy Gilron gave a charming birthday party to her little friends Thursday afternoon.  
Miss Edwanda, of Tacoma, is the guest of Miss Anna Shields for a few days at Cohasset Beach.  
Mr. and Mrs. Charles Mace, of Portland, and Mrs. J. D. Mace, of Montezano, are visiting Mr. and Mrs. William Mace, a.  
Mrs. W. H. James, of Battle Creek, Ia., who has been visiting her son, Merton James, left for her home Wednesday, intending to visit friends in Portland en route.  
Mr. and Mrs. O. Nelson left for their

home in Walla Walla, Wednesday, after a brief visit here. Mrs. Nelson was formerly Miss Evelyn McNitt, of this city, and one of the society belles here.  
Mrs. Charles R. Greene gave a picnic to a select party Tuesday afternoon, the launch Wolverine taking the guests several miles up the Wahkiah River, where a landing was made and a basket luncheon served.  
Mrs. James McCrossen, of Wausau, Wis., accompanied by her daughter and granddaughter, Mesdames L. E. and M. Thayer, of Everett, and Miss Margie McCrossen, arrived in the city Wednesday to spend the Summer.

**SOCIETY.**  
(Continued from Page 10.)

rived from their honeymoon trip and will make Centralia their home.  
Mrs. B. Hochstadter, of Tacoma, is in the city, a guest of Mrs. P. R. Stahl.  
Harry and Will Dunckley have returned from a visit to Westport and Hoquiam.  
Cards are out announcing the marriage of Charles Elder and Miss Josie Bennett, on Sunday, July 20.  
Mr. and Mrs. John A. Raught, Mr. and Mrs. Rickelsson and the Misses Ruth, Ollie and Minnie Baker and Mr. and Mrs. Frank Baker are rustivating at Westport Beach this week.  
Mrs. F. H. Miller entertained a number of her young friends at a dinner party Wednesday evening. Those present were: Miss Anna Robinson, Miss Lucy Packard, Miss Daisy Miller, Miss Kate Martin and Miss Edith Mead.

**THE BREAKERS**  
New, commodious and elegantly furnished. The largest and finest seaside resort in the Northwest. Electric lights, hot and cold salt-water baths in the hotel; golf, tennis, bowling, billiards, pool, ping pong, boating and fishing. Unsurpassed view of ocean from dining-room, parlor and guests' rooms; beautiful surroundings. For rates or reservations, write or telephone to

**THE BREAKERS, Long Beach, Wash.**  
Get tickets and check baggage to BREAKERS STATION.

**HOTEL FLAVEL**  
NOW OPEN FOR SEASON 1902  
RATES \$7, \$10, \$12 AND \$15 PER WEEK, INCLUDES ROOM AND BOARD

Table service unequalled before.  
Best bathing facilities on Coast; no danger; salt water bathing on solid, firm beach.  
Every room electric-lighted and steam-heated, with electric call-bells; stands unsurpassed. Hot and cold soda baths. Best of accommodations for transient and steady boarders. Ideal camping grounds. Kept clean. Terms, \$1.00 and upward per day. Camping privileges, 50 cents per week for adults. Take S. P. R. R. to Lebanon and comfortable conveyance; 30 minutes to springs. Address G. M. GEISER, ENDORFER, Cascade, Linn County, Or.

**CASCADE Mineral Springs**  
A magnificent health resort in the heart of the Cascade Mountains, for rest, health and pleasure, scenery and climate. Chemical analysis proves it to be the best mineral water in the state for rheumatism, kidney liver and stomach trouble, stands unsurpassed. Hot and cold soda baths. Best of accommodations for transient and steady boarders. Ideal camping grounds. Kept clean. Terms, \$1.00 and upward per day. Camping privileges, 50 cents per week for adults. Take S. P. R. R. to Lebanon and comfortable conveyance; 30 minutes to springs. Address G. M. GEISER, ENDORFER, Cascade, Linn County, Or.

**Cloud Cap Inn**  
The chief mountain resort in Oregon. Situated 7000 feet above sea level, on the North slope of Mount Hood. Daily stages from Hood River, via the Transfer & Liverty Co. Through tickets to the Inn can be purchased at O. R. & N. or Columbia River steamer ticket offices.  
For rates, etc., address Mrs. S. Langille, Hood River.

**The Kutzchan Cottage**  
SEASIDE, WASH.  
Now open. Seaside Station. First-class table board and elegant accommodations. Address P. O. Ilwaco, Wash.

**G. G. KEE, SEASIDE**  
RESTAURANT—The best bill of fare at any ocean resort.  
BAKERY—Fresh bread, cakes and pies always on hand.  
Orders filled and delivered daily.

**THE HACKNEY COTTAGE**  
SEASIDE, WASH.  
Now open for season 1902. On next block from railroad station. Excellent table board, with beautiful surroundings. Fine surf-bathing. No more attractive place on beach than this. Address Mrs. JAMES HACKNEY, P. O. Ilwaco, Wash.

**THE NEWTON**  
LONG BEACH.  
Open for the season of 1902. Every home complete. Excellent table for families desiring pleasant, homelike entertainment for the Summer. No more attractive place than THE NEWTON can be found. OUR OWN GARDEN, FRESH VEGETABLES, AND MILK FROM OUR OWN COWS.  
MRS. M. E. DICK, Proprietor.

**The Seaside House**  
Clatsop Beach, Or.  
The finest Summer seaside resort in Oregon. Everything first-class. Golf links on grounds.  
For further information, address Manager Seaside House, Seaside, Or.

**THE SHELburne**  
SEASIDE, WASH.  
Open for the season of 1902. All home comforts. Fine home cooking. Plenty of sea food. Good surf bathing. A most desirable place for families. Shelburne Station, one block from house.  
MRS. I. E. BEAVER, P. O. Ilwaco, Wash.

**THE BRITT**  
LONG BEACH  
Is completed. Situated half-block north of depot. Best meals on the beach.  
LONG BEACH, WASH.  
M. C. MACE  
Dealer in Oysters, Clams, Crabs and all kinds of fish. Fresh Vegetables and Fruit. Open July 1.

**SEASIDE RESORTS.**

**THE BREAKERS**  
New, commodious and elegantly furnished. The largest and finest seaside resort in the Northwest. Electric lights, hot and cold salt-water baths in the hotel; golf, tennis, bowling, billiards, pool, ping pong, boating and fishing. Unsurpassed view of ocean from dining-room, parlor and guests' rooms; beautiful surroundings. For rates or reservations, write or telephone to

**THE BREAKERS, Long Beach, Wash.**  
Get tickets and check baggage to BREAKERS STATION.

**HOTEL FLAVEL**  
NOW OPEN FOR SEASON 1902  
RATES \$7, \$10, \$12 AND \$15 PER WEEK, INCLUDES ROOM AND BOARD

Table service unequalled before.  
Best bathing facilities on Coast; no danger; salt water bathing on solid, firm beach.  
Every room electric-lighted and steam-heated, with electric call-bells; stands unsurpassed. Hot and cold soda baths. Best of accommodations for transient and steady boarders. Ideal camping grounds. Kept clean. Terms, \$1.00 and upward per day. Camping privileges, 50 cents per week for adults. Take S. P. R. R. to Lebanon and comfortable conveyance; 30 minutes to springs. Address G. M. GEISER, ENDORFER, Cascade, Linn County, Or.

**CASCADE Mineral Springs**  
A magnificent health resort in the heart of the Cascade Mountains, for rest, health and pleasure, scenery and climate. Chemical analysis proves it to be the best mineral water in the state for rheumatism, kidney liver and stomach trouble, stands unsurpassed. Hot and cold soda baths. Best of accommodations for transient and steady boarders. Ideal camping grounds. Kept clean. Terms, \$1.00 and upward per day. Camping privileges, 50 cents per week for adults. Take S. P. R. R. to Lebanon and comfortable conveyance; 30 minutes to springs. Address G. M. GEISER, ENDORFER, Cascade, Linn County, Or.

**Cloud Cap Inn**  
The chief mountain resort in Oregon. Situated 7000 feet above sea level, on the North slope of Mount Hood. Daily stages from Hood River, via the Transfer & Liverty Co. Through tickets to the Inn can be purchased at O. R. & N. or Columbia River steamer ticket offices.  
For rates, etc., address Mrs. S. Langille, Hood River.

**The Kutzchan Cottage**  
SEASIDE, WASH.  
Now open. Seaside Station. First-class table board and elegant accommodations. Address P. O. Ilwaco, Wash.

**G. G. KEE, SEASIDE**  
RESTAURANT—The best bill of fare at any ocean resort.  
BAKERY—Fresh bread, cakes and pies always on hand.  
Orders filled and delivered daily.