STATE WOULD PROFIT MUCH BY WATER MAPS

Would Result From Information Thus Available.

GOVERNMENT TO SHARE THE EXPENSE

J. C. Stevens, Geological Survey Engineer, Indorses Bill Making Appropriation for Oregon's Paying Part of Cost of Surveys.

J. C. Stevens, engineer of the United States geological survey, indorses house bill 255, introduced by Eaton of Lane county, providing for a contingent appropriation of \$50,000 for topographic maps of the state. In the following article Mr. Stevens defines his posi-

For nearly 26 years the United States geological survey has been actively en-gaged in studying the natural features resources and characteristics of the United States and Alaska, for the purpose of presenting to the public data and information essential to the eco-nomic development of the country. During this time methods have been developed which insure the collection and presentation of this information along the most efficient lines.

In the state of Oregon this work has

been carried on to a more or less extent for the past 16 years. Systematic topo-graphic mapping was begun in 1894, and since that time Coos Bay, Port Orford, Roseburg, Ashiand, Klamath, Baker City, Mitchell-Butte, Crater Lake and Portland quadrangles have been published. Surveys of three others are omplete and will be ready for distribu-on in a short time.

Pederal Aid Offered. Owyhee, Malheur and Umatilla were among the first streams United States to be made the

subject of investigation by the division of hydrography, and today measuring stations are maintained on a number of the more important streams of the state where water is, or will in the future, be used for irrigation, power or municipal purposes.

The United States now offers to ex-

pend the sum of \$50,000 within the state of Oregon towards the completion of a topographic map of the state and the collection of information in regard to the available water supply for industrial purposes. This money will be expended provided the state of Oregon will make appropriation of a similar amount for the same purposes. A bill is now pending before the state

legislature, introduced by Mr. Eaton of Lane county, to provide for coopera-tion with the federal government in making of topographic maps and collection of information concerning the water resources of the state, to the extent of \$50,000. This is an oppor-tunity which the state of Oregon canot afford to miss.

Other States Adopt Plan. The idea of cooperation in public surveys between federal and state government originated in connection with a plan to make a topographic map of the state of Massachusetts, and since that time 12 states have availed themselves of the advantages thus offered to has-ten the completion of topographic maps

ten the completion of topographic maps of their areas. Among these states may be mentioned the following, with the amounts appropriated by each:
Alabama, \$6.000; Illinois, \$10,000; Kentucky, \$11,500; Maine, \$15,000; Maryland, \$20,000; Michigan, \$5,000; North Carelina, \$17,000; New York, \$207,000; Ohio, \$97,000; Pennsylvania, \$25,000; West Virginia, \$60,000; Oklahoma, \$5,000; California, \$20,000.

Many of these states have in inddition appropriated money for cooperation with

appropriated money for cooperation with the division of hydrography. The state of California in 1903 passed an act pro-viding for the appropriation of \$60,000 appropriations were contingent upon the federal government spending a like amount for the same purposes within

Made From Mature.

The area of the state of Oregon is about 96,000 square miles, of which 16,000, or 1-6 of its area, has already been surveyed and mapped by the United States geological survey. These amps are called quadrangles and are hamed after the most important town or natural feature within their boun-daries, and cover an area of from 200 to 200 square miles, depending upon the location and scale chosen. These topographic maps are made

directly from nature by measurements and sketches on the ground. It is the mother map from which all other maps are derived and serves as a basis for the presentation of all information concerning the natural features of that locality. They are printed in three colors: (1) Water features, as ponds, lakes, streams, swamps, marshes, etc., are printed in blue. (2) Culture, or fea-tures constructed by man, as cities, roads, villages, mines and shafts, boundary and land lines are printed in black. (2) Relief of surface, as hills, valleys and plains are shown in brown. Full of Vital Information.

These several features, by the aid of a legend printed on the reverse of sheet are readily understood and interpreted by any one, except perhaps the brown contour lines. These lines express three features of relief—(1) elevation, (2) horizontal form and (3) grade or slope.

Briefly, they are lines connecting points of equal elevation above sea points of equal elevation above sea level, and are drawn at intervals of 10, 20, 50 or 1vo feet, depending upon the character of the country, It is therefore possible, from such a map (1) to determine elevation of any point in the area above sea level, (2) to find the profile or fail of a stream, (2) to locate a canal and determine accesses of land canal and determine acreage of land that can be watered therefrom, (4) to locate and compute the capacity of a reservoir, and (5) to estimate the height and number of yards of mate-rial required for a dam.

These maps are absolutely essential the projection of railroads, highways, canals and the reciamation of arid lands. To the miner they are invaluable, as they furnish a base map valuable, as they furnish a base map upon which the geology and mineral resources can be outlined, as well as the relation of location of all deposits to trails, highways or railroads. To the lumbermen and foresters they are indispensable as a base for classifying woodlands, recording the nature and quality of timber, and the relation of cooled areas to the highways of transdity of timber and the relation of Shoulder Cutlets 121/20 Sirloin Steak 121/20

Development of Many Resources suits of the people than any other natural resource, and the extent of the de velopment of the water resources of an estate is an accurate measure of the im portance of that state as an industrial factor in the nation's affairs. No land can be reclaimed, no water power developed, nor the water supply of a municipality determined upon without first securing reliable information as to the amount and quality of water to be util-

> In order to efficiently study the water roes of the United States the geo resources of the United States the geo-logical survey includes a branch of water resources, which in turn is di-vided into three divisions, first, division of hydrography, which is engaged in systematic measurements of stream flow, obtaining daily records of dis-charge of a number of streams throughout the country, as well as actual measurements of a large number of creeks and rivers at maximum and minimum stages; second, division of hydrology, which is concerned with the study of ground water conditions, the rate of movement of underground waters, loca-tion and extent of artesian basins, as well as methods for brightwell as methods for bringing under-ground waters to practical developthird, division of hydro-economics, which is chiefly concerned in sup-plying information on sanitary conditions of rivers, flood prevention, pollu-tion of public water supplies and its prevention, and allied questions.

In order to be able to furnish the in formation demanded it is necessary forestall such a demand and begin vestigations on any drainage system before its practical development com-

Great Demand for Information.

While a topographic or geological map while a topographic or geological map once made is, as far as natural feat-ures are concerned, good for all times, the hydrography of streams must be made the subject of continuous atudy for the same reasons that it is essential to measure temperatures and rainfall at the same places from year to year. A single measurement of a stream or a single year's records will not give suf-ficiently reliable information upon which to construct works of any magni-

The state of Oregon, by an act approved in 1905, is at present cooperating with the United States geological survey to the extent of \$5,000, \$2,500 to be used in topographic mapping and \$2,500 in hydrographic surveys, but in view of the rapid strides which the state of Oregon is now taking towards the economic development of its natural resources, sufficient information along these lines cannot be obtained to supply the demand with this amount of

The geological survey has realized this, and during the last year has spent in this district, which comprises the states of Oregon and Washington, \$10,260 on hydrographic work alone, and yet we cannot obtain sufficient information along these lines to supply the demand. In order, therefore, to hasten the completion of a topographic map, and enlarge on the hydrographic investigations, the geological survey, as before stated, has offered to contribute before stated, has offered to contribute M. Donough, Seliwood board of trade; \$50,000 towards a cooperative fund for the collection of this very necessary information in Oregon.

should realize that the amount so appropriated by both the state and government will be spent entirely within the state, and at points where the greatest demand is centered. It is in reality taking an inventory of the state's wealth, and if the state can afford to spend about 1 mill per acre within its area in taking this inventory the antity reality in the state would the entire valuation of the state would show a marked increase in a very few years.

J. C. STEVENS,
Engineer U. S. G. S.

HUGE PANTHER APPEARS NEAR FOREST GROVE

(Special Dispatch to The Journal.)
Forest Grove, Or., Feb. 7.—Tuesday night the whole Oak Hill neighborhood were called out in their nightrobes by a reans of the federal government. In were called out in their nightrobes by a 1965 this was increased to \$76,000, distributed as follows: Topographic mapor or one in great distress. Farmers deping. \$30,000; hydrographic surveys, cided that it was the cry of a panther, \$21,000; forestry, \$10,000; department and yesterday's investigation on Alec of agriculture, \$15,000. All these state Todd's place bore them out in this belief, for tracks of a huge panther were

> Panthers in this section are very rare and the farmers are talking of organizing a posse to run this one down.

found,

Preferred Stock Canned Goods.

Johnson Creek Has Risen for the Fifth Time This Winter, and Land Is Flooded.

DAMAGE TO MILL SEEMS TO BE CERTAIN

Promoters of East Side Theatre Examine the Architect's Plans for Building and Decide on the Articles of Incorporation.

East Side Department.

is suffering from the high which has compelled the of the sawmills and fnundated the low territory tributary to and drained by Johnson creek. The people of this community and the proprietors of the Lents mills expect a certain amount of inconvenience each year from unruly waters, but the winter now being experienced has surpassed all records kept by the 'oldest inhabitants,' probably not for the highest flood, but certainly for the persistence of high

so that the sawmill had to be shut down more than three times during the winter. This invariably occurs during the general June freshet, however. Al ready this stream has risen above its banks five times and another rise is ex-pected for June, so that twice as many floods will occur this winter. The water, which is now the highest

of the winter, threatens to ruin the machinery in the mills, as it already covers the floor of the engine-room and is rising with the Willamette. The back water is swirling around and filling the lower room with mud.

Miles and miles of territory are cov-ered with water, which has its benefits as well as its inconveniences. A stretch of lakes follow in the lowiands bordering on the creek which makes the creek indistinguishable from its surroundings, The stream threatens to change its course and spoil good land in several

Incorporate for Theatre.

Articles of incorporation, drawn up with the object of erecting a modern playhouse to cost not less than \$100,000 and which will be erected on a piece of property donated for that purpose by the Hawthorne estate on Grand ave-nue near East Salmon street, were agreed upon last night at a meeting of the general committee from east side progressive organizations in the clubrooms of the East Side club. The cap-ital stock was fixed at \$60,000, the par value of a share being set at \$10.

The presidents of the several push

clubs are the incorporators. They are; Chauncey O. Ball, Center Addition Pro-gressive league; C. Ben Riesland, Woodstock Push club; H. B. Dickinson, Montavilla Improvement league; Charles Hyle, Montavilla board of trade; D.

ormation in Oregon.

The people of the state of Oregon Improvement association; G. Everett hould realize that the amount so apclation.
All these incorporators were not pres-

ent but will have no objection to these plans that were practically decided upon at previous meetings.

Otto Kleeman, architect, submitted plans which were found quite satisfactory. The building will be one of the finest in the Pacific northwest and will be so constructed as to be perfectly safe. The 2,200 people, its scating ca-pacity, will be able to reach the outside

n three minutes.

Many addresses were listened to from Manager Cordray, who will furnish the building, from W. L. Boise and others.

News Motes of East Side. Rev. J. Muelihaupt of Salem died yesterday at the home of his daughter, Mrs. Lydia Adams, 245 Misner street, Montavilla, after a long illness of five months. He was born in Elgg cante Zurick, Switzerland, on October Zurick, Switzerland, on October 24, 1846, coming to America in 1869, after finishing a course at the University of St. Crichona. Germany. His efforts st. Crichona, Germany. His efforts have been directed to pioneer missionary work, being early sent to Stockton. California, by the German Evangelical Reformed church. In 1874 he came to Salem, where he had made his home and where he raised a family of six children, marrying Miss Margaretta Schind-ler, also a native of Switzerland. He is survived by the following children: Theofil, Oroville, California; Mrs. Lydia

226-228 Alder St., Between First and Second Sts.

Do you realize what it means to the Portland people when Smith fights the Beef Trust? There are 30,000 families in Portland. Each family saves 25 cents a day by trading with Smith. This means that \$7,500 is left in the pockets of the Portland people every day and kept from the fingers of the Chicago Beef Trust. A grand total of almost \$3,000,000 a year. Surely this is the people's fight more than it is Smith's fight, but Smith will lead the people in this fight.

LAMB
Leg of Lamb150
Loin Roast150
Frontquarters100
KID UNODS - 150
Loin Chops
Shoulder Chops121/26 Stew
BEEF Prime Rib Steak121/20
Round Steak121/20
Shoulder Steak80
Rolled Roast Beef121/20
Pot Poset Beef
Pot Roast Beef80
Chuck Roast Beef8c
Plates to boil5c Brisket to boil5c
Store
Soun Bones 21/c
Prime Rib Roast Beef 10c

Adams of Portland, Otto of Salem, Oscar W. T. of Portland, and Frieda and Walter G. of Salem.

A reading and rest room will be opened at Montavilla, Monday, February 11, and it is especially desired to have all interested visit the new reading room on that day, Refreshments will be served and a musical program has been prepared for the occanion.

The Piedmont Presbyterian church will hold anniversary services to mark the second year of the work of the church which it will have entered upon next Sunday, February 10. Special features have been prepared.

NEWSBOYS WILL SEE "NETTIE" AT EMPIRE

A more appreciative audience has never attended a theatre than one that never attended a theatre than one that will witness the performance of "Nettic, the Newsgirl," at the Empire tonight. Manager Gould of the company and Manager Seaman of the Empire have tovited all the newsboys of the city to visit the theatre tonight and witness the performance.

"Nettle, the Newsgirl," is one of the most popular plays that has visited the empire this season and has been drawing crowded houses. The house will be taxed to its capacity tonight, for every newsboy in the city and his friends will attend. All the "newsies" have accepted the invitation.

Railroad to Cross Bar.

(Special Dispatch to The Journal.)
Huntington, Or., Feb. 7.—It is stated
int the Cougar bar is selected as the that the Cougar bar is selected as the point by the Lewiston-Huntington line for the crossing of the Snake river in reaching the Idaho side for the railroad that is being built through. The bar is several miles above the mouth of the Grand Ronde and a few miles above Cash Creek bar.

Ilwaco Masons Install.

(Special Dispatch to The Journal.)
Ilwaco, Wash., Feb. 7.—Occident lodge
No. 99, A. F. & A. M., installed the following officers: C. H. McKinney, M.
M.; H. A. Vincent, S. W.; W. B. Hawkins, J. W.; treasurer, Dan Markham;
secretary, J. J. Brumboch; S. D.; S. D., Burt Tabel; J. D., William Litschke; S. S., William Suldon; J. S., J. A. Collings; tyler. C. M. Flink; chaplain, C. McIver,

WILL BUILD CANAL



This picture is from a recent photo graph of Mr. J. F. Stevens, Chief gineer of the Panama Canal, who, it is understood, is to suc-ceed President Shonts of the CaOur Great Friday and Sat'day Specials

Are real money-savers. Don't overlook a single item in this ad, for each and every one of them is marked way below its regular value. Out-of-town orders given prompt and careful attention.

These prices for Friday and Saturday only.



100 Dozen New Spring Waists At 97c Each

Hundreds of pretty styles in Fine Sheer Lawns, elaborately trimmed with laces, embroidery and tucks, open front and back, and in all sizes. On sale Friday and Saturday at this remarkably low price. Regular values to \$1.75

\$2.00 WAISTS AT \$1.19—About 25 dozen in this lot, so you'll have to be prompt. Every one new 1907 styles, in fine Lawns and Dotted Swisses, elbow or full-length sleeves. Dozens of dainty new models. Lace and embroidery trimmed and actually worth \$2.00 apiece. \$1.19

Two Days Only-

\$1.50 to \$3 Corsets At 95c Each

For a great Friday and Saturday special we offer choice of about a dozen styles in Warner's and Thompson's High-Grade Corsets at this extraordinary low price. Nearly all sizes in every style. Colors and black, drab and white, and the regular prices range from \$1.50 to \$3.00. Don't miss this great 950 bargain. Choice

\$1.50 CORSETS AT 504-Thomson's Glove-Fitting Corset, in a straight-front model, made from very best French corse sateen, bias gored and lace trimmed. A splendid model for the average figure and a standard \$1.50 grade. Friday and 50c Saturday, special, each

\$2 Umbrellas \$1.47

FRIDAY AND SATURDAY.

If you're in need of an Um-brella, now's your chance. For two days only we place on spe-cial sale our regular \$2.00 line of Women's 26-inch Umbrellas, steel rod and frame, and cover-

variety of silver, gold, horn and natural wood handles. \$1.47

Boys' Shirts 25c

FRIDAY AND SATURDAY.

A special lot of Boys' Soft and Dress Shirts on sale at this un-

usual price. Come in stripe pat-terns and in sizes 12, 121/2 and

13. Some have two extra col-lars and all are regular 50c val-

ues. Two days only. 25c

Men's Shirts 47c \$1.25 and \$1.50 VALUES,

Only about 18 dozen left of these splendid shirts. Take advantage of this wonderful bargain and lay in a supply. Come in neat stripe patterns, with detached cuffs, open front and back, stiff bosom, standard \$1.25 and \$1:50 values. 47c

\$22.5 Skirts \$1.59 FOR TWO DAYS ONLY.

Women's Fine Cambric Skirts, with 2 rows wide oriental lace insertion, 10 rows fine pin tucks, deep full knee, flounce and dust ruffle; others with 3 rows linen Torchon insertion and edge deep full flounce with dust ruffle and rows of fine hemstitched tucks; regular \$2.25 \$1.59

Two Days Only-\$7.50 Silk Pettico'ts \$5.45 Each

Your choice Friday and Saturday of 15 dozen Women's Silk Petticoats, in blues, browns, reds, greens, grays and black, in a fine quality rustle taffeta and in a wide range of styles at this special low price. You pay \$7:50 and \$8,00 about town for the identical quality. For two days only, your pick \$5.45

NEW SILK WAISTS \$2.75-We have just received a shipment of New Spring Waists in a fine quality of wash silk, black and white, and in a dozen new and pretty styles, which we are

Women's Sample Suits and Coats at M'n'f'r's Cost

Modes Union-Made

Patterns

We mean just what we say: Our new store will be ready about March 15th, and we will not pack one single garment across the street. We might have had some great sales in the past, but we never made an offer such as this.

Your Choice of Any Long Coat in the House Friday and Saturday

Just imagine \$30.00 and \$40.00 Coats sold for\$7.75





This announcement may seem queer to you, but to satisfy yourself be among the first and buy one of the greatest values ever

131 FIFTH STREET

Thousands upon thousands of SKIRTS, and they have got to go. Suits of all description and prices, and every one of them must go. Silk Petticoats-it's the kind of a showing and the kind of prices and values that have made this store talked about as the store for silk petticoats.

The J. M. Acheson Co.