

**The Daily Astorian.**  
ASTORIA, OREGON:  
FRIDAY, FEBRUARY 14, 1908  
City and County Official Paper.  
WAVE ACTION.

WAVE AND WAVE ACTION form an interesting study. We see the billows curling toward the shore, then break, the sand and pebbles washing backward with them; who has not noted the rapid changes of the ocean beach? This storm tearing it away, and that one broadening it out; the gradual wearing away of islands along their seaward face, while at the same time making to leeward. What is the mean effect of wave action on the continents is a subject which, for the most part, has been treated by hydrographers like Admiral Davis, Lieutenant Maury, and Beaupre. Now comes a geologist, Prof. Shaler, who, in a recent paper discusses the subject from the standpoint of one familiar with continental formation, that is to say, from effect to cause as well as from cause to effect. All the rocks, he says, bear undeniable evidence that the sea has swung over them in the oscillations of the continent in its alternate uprisings and downsinkings. All waves, save those coming from submarine upheavals, are caused by the wind. Wind comes from variations of temperature, the great trade winds being an effect of the disparity between the heat of the tropics and the poles; difference in temperature between the warm sea and land causing local winds. You can study wave action on an ordinary pond. So says the author. If the shore be a shelving one, the waves will topple over, as do the ocean's surges, and strike their blows. After an artificial pond has existed for a short period, it is easy to see where these repeated blows have cut the earth upon its shelving sides, so as to form what is called a wave scarp, and how the process of erosion goes on. On ordinary soil, even upon rocks of moderate hardness, this wave action combined with the freezing which takes place in winter breaks up the earthy material and bears it outward. The tops of the waves move more rapidly than the bottoms, thus all wave-swept shores have an undercurrent movement of their waters, which sets off from the coast line toward the deeper waters. Where ever a wave rolls up on a shore, it grinds up a certain amount of material. With the reflux of the surge this material is carried off to the edge of the deeper water, the margin of the surf belt, where the undertow comes in to drag the debris still further from the coast. Undertow has no influence near the surface, which sets shoreward while it is pressing seaward. Many lives are lost at the bathing beaches, he thinks, because the exhausted swimmer essays to struggle ashore afoot instead of throwing himself out flat in the surface waters.

Waves while scarring a beach against the shore build out a shelf composed of all the material they had dragged from the land, save that gone into complete solution from grinding. By this he means the outside bar, with which every bath is familiar, the same being composed of the debris. Hundreds, indeed thousands, of miles inland are found sandstones and clay deposits, which, in nearly all cases, indicate the former presence of the sea, under which they were formed precisely as like formations exist to-day in the outer bars.

SAYS a Washington dispatch: General Nelson A. Miles, of the division of the Pacific, is in Washington to appear before the congressional committee on coast defenses in support of his report recommending that additional protection to the Pacific coast be made. The report of General Miles has created a great deal of interest among congressmen here, who were not aware that there was so much need of coast defenses in Oregon and Washington. The average congressman is not easily convinced that the greatest harbor in the world is on the Pacific coast, and it is hard to teach them that the principal coast line of the Pacific is above the California line. General Miles believes that with the showing he will make the appropriation asked for in the bill now pending, \$125,000,000 for the Pacific coast, will be favorably reported. The Oregon and Washington delegations are very much interested in the bill and will use all the influence they possess to get through the appropriation.

From the manner in which rail communication has been blocked during the last few weeks, says an exchange, a casual observer will almost come to the conclusion that steamboating is almost as reliable as the iron rail. Man made the railroad and God the river. Remove the obstructions at The Dalles and the Cascades, and allow the water to flow unvexed to the sea, and the inland empire will pour its wealth of production down the bosom of the placid stream to tide water by wholesale.

**No. 9 Now on Deck.**  
We are now ready for business, and have some first-class bargains in real estate, both inside and outside property. We have a fine bargain in a two-story house, with an eight-year lease, situated on Third street near the Central hotel. We have at a bargain a fine residence and two lots just five blocks from our office—No. 9.  
We also have lots in all parts of the city and acreage in all parts of the state. We have timber, claims and farms in Clatsop county.  
We do not propose to misrepresent any property that we have for sale, but to establish a safe and reliable business. Call and see us at the corner of Main and Third streets, Real Estate Co. No. 9.  
DUNN & HANBERT.

**A VIGOROUS KICK.**  
**A Merchant's Wife the Bone of Contention—A Denunciation.**  
A well known merchant who has been greatly benefited by Joy's Vegetable Sarsaparilla, desired to give it to his wife, who was very delicate, but out of caution first consulted his physician, Dr. W. H. Griswold of 680 Market street. The doctor, who is one of our leading practitioners, objected, saying he had never seen a sarsaparilla that did not contain potash, which thinned the blood; that his patient did not have any vitality to lose, and that what delicate people need is not decreased vitality, but more blood. He however consented when assured that Joy's Vegetable Sarsaparilla was opposed to the blood thinning idea of other sarsaparillas, and that on the contrary by specific vegetable alteratives it promoted digestion, and repaired nutrition, hence created new blood and was the very thing for feeble people. The above explains the many cases in which aged, delicate and run down people, have been built up by Joy's Vegetable Sarsaparilla after the potash sarsaparillas failed. Its effects are creating a sensation.—S. F. Examiner.

**ADVICE TO MOTHERS.**  
Mrs. Winklow's SOOTHING SYRUP should always be used for children teething. It soothes the child, softens the gums, allays all pain, cures wind colic, and is the best remedy for diarrhoea. Twenty-five cents a bottle.

**Telephone Lodging House.**  
Best beds in town. Rooms per night 20 and 25 cts., per week \$1.50. New and clean. Private entrance.

**For Fine Photographs.**  
Go to Misses Carruthers' photograph gallery: Third street, opposite Morgan & Sherman's.

**BARGAINS**  
Lots in Tract 3 of the beautiful suburb of CHELSEA, only five minutes walk from the steamer landing at Skidnap and terminus of A. & S. C. R. R. These lots are 50x100 feet, on the first bench above the tide land, are clear and level, and good water obtainable within ten feet of surface. Prices from \$80 to \$750. \$20 down, balance \$10 per month.

The West One-Half of Block 113, Olney's Astoria, having a frontage of 160 feet on Ninth street and 200 feet on Cass street. A splendid residence site. Abstract furnished.

Ten Acres, suitable for plating, clear and level; on county road and within easy drive of Astoria.

Front Corner Residence Lot in Block No. 50, Olney's.

**J. H. MANSELL,**  
Real Estate Broker.

**Morgan & Sherman**  
GROCERS  
And Dealers in  
Cannery Supplies!

Special Attention Given to Filling of Orders.  
**A FULL LINE CARRIED**  
And Supplies furnished at Satisfaction Terms.  
Purchases delivered in any part of the city.

**Office and Warehouse**  
In Home's New Building on Water Street.  
P. O. Box 153. Telephone No. 37.  
ASTORIA, OREGON.

**Carnahan & Co.**  
SUCCESSORS TO  
**L. W. CASE,**  
IMPORTERS AND WHOLESALE AND  
RETAIL DEALERS IN  
**GENERAL MERCHANDISE,**  
Corner Chenamus and Cass streets.  
ASTORIA - OREGON

**FOR SALE!**

The West One-Half of Block 71, McClure's Astoria.

Only three blocks south of the Odd Fellow building. There is a fine dwelling on this choice property that will rent at top figures the year around. For further particulars inquire of

**ASTORIA REAL ESTATE CO.**

**H. W. Strickler, M. D.**  
DEALER IN  
Pure Drugs, Toilet Articles, Etc.

Prescription Clerk speaks Four different Languages.  
General practice of Medicine attended to by the Doctor.  
Second Street, near Postoffice.

**Marshall & Co.,**  
Salmon Net Twines

—MANUFACTURED BY—  
**GEO. A. CLARK & BROS.,**  
NEW JERSEY.

For Sale by D. SMITH, Agent,  
Office at Wherry & Co's.

**THE PEERLESS.**  
Thos. Graves, Propr.

A new and first-class saloon, fashionably fitted. All the modern conveniences.  
My Aim is to Please My Patrons.

SECOND STREET, - ASTORIA, OR.  
Opposite Flavel's Brick Building.

**Magnus C. Crosby**  
Dealer in  
**HAIRWARE, IRON, STEEL,**  
Iron Pipe and Fittings,  
**STOVES, TINWARE**  
AND  
**HOUSE FURNISHING GOODS**

**SHEET LEAD STRIP LEAD**  
**SHEET IRON,**  
**Tin and Copper.**

**The Oregon Land Co.**  
**J. A. COOK, Manager.**

**HAS AN ASTORIA OFFICE**

**S. W. COR. THIRD AND OLNEY STREETS,**

**Buy and Sell Property on Commission.**

**We Deal in Real Estate and are Successful in Our Business.**

**BUY YOUR LOTS IN**

**Sunny Mead Addition!**

**TO ASTORIA.**

This Fine Property has been put on the market by MRS. OWENS ADAIR, M. D., and is situated near the Astoria & Coast Railroad.

For Sale by  
**McGowan Bros. & Tuttle,**  
PRICES, \$50 AND \$60.

**THIRD STREET, - - - EAST OF OLNEY.**

**W. L. Uhlenhart & Co.,**  
Real Estate and Money Brokers,

**OFFICE ON THIRD ST., - - - Opp. Odd Fellow's Building**  
**P. O. BOX 841.**

**\$75,000 Worth of Real Estate For Sale**

I have opened my office with a splendid selection of Business, Residence, Seaside, Farming and Timber Land.

**SOME VERY CHOICE ACREAGE PROPERTY,**  
On John Day's River, suitable for plating. CORRESPONDENCE SOLICITED.

**Abercrombie & Stevens,**  
REAL ESTATE AGENTS.

**We Offer To-Day Choice Acreage!**

Two Hundred and Twenty Acres Choice Land on Lewis and Clarke's River, 60 Acres slashed and burnt, 15 Acres cleared with good House and Barn.  
One Hundred and Ten Acres partly cleared on Ferris Creek above Swinson's Landing, Two Blocks in WASHINGTON.  
Two Blocks in MATIER'S.

**HOUSES AND LOTS AT SEASIDE.**  
Two Lots in HUSTLER'S & AIKEN'S.  
Three Lots on West Ninth Street, ASTORIA.

Office in the Telephone Building, Opp. Thompson & Ross.

**SILVERMAN & THORNBURG,**  
DEALERS IN

**General Merchandise**

**A SPECIALTY MADE OF COUNTRY PRODUCE.**

**We Pay the Highest Cash Price for Country Produce, and Guarantee Square Dealing.**

**Orders From Any Quarter Will Receive Prompt Attention.**

**SKAMOKAWA, - - - WASHINGTON**

**Wholesale Wine House.**  
Fine Wines, Choice Brands.

I have completed arrangements for supplying any brand of Wine in any quantity at lowest cash figures.

**The Trade Supplied,**  
**Families Supplied.**

**ALL ORDERS DELIVERED FREE IN ASTORIA.**  
Your patronage in City or Country solicited.

**A. W. UTZINGER, Cosmopolitan Saloon.**

**J. H. MANSELL,**  
**REAL ESTATE BROKER,**  
NOTARY PUBLIC FOR STATE OF OREGON.  
City Lots and Acre Property, Ranches, Timber Lands, and Water Frontage for Sale.

**Investments made for Outside Parties.**  
Established, 1883. **Correspondence Solicited.**  
Next W. U. Telegraph Office. Third St. Astoria, Oregon.  
**P. O. BOX 863.**

**THE ASTORIA**

**Real Estate and Trust Co.**

(INCORPORATED.) CAPITAL, \$50,000.

President, L. P. W. QUIMBY. Vice-President, G. W. WILLIAMS.  
Secretary, W. H. EDWARDS.

The above Company Placed the

**RAILWAY ADDITION!**

TO ASTORIA, on the market December 18th, 1889. A clean sweep of all the lots in above addition was made by January 18th, 1890.

**AN EXTENSION TO THE RAILWAY ADDITION**  
Has been placed on the market. \* \* \* Get in now while the price is low.

General Office, Rooms 16 and 17, N. E. Cor. First and Alder

**PORTLAND, OR.**  
**FRANK SPITTLE, Agent** Astoria, Oregon.

**Warren & Wright,**  
Real Estate Dealers,

Manseil's Building, Water Street.  
ASTORIA, OREGON.

**City Property, Seaside Property, Tide Lands,**  
**Timber Lands, Farms, Etc., Bought and Sold.**

**ASTOR ADDITION.**  
Astoria's most delightful suburb. Lots \$20 to \$35 cash or installments.

Loans negotiated and a general commission business transacted. Investments for non-residents a specialty.

**CORRESPONDENCE SOLICITED.**

**Flynn, the Tailor,**

KEE'S IN STOCK THE  
**Finest Woolen Goods for Suitings.**  
ALL THE LATEST STYLES.

He buys for Cash, at Eastern Prices. He Guarantees the Best Workmanship on all garments. Call and see for yourselves.  
**Barth's Block, Astoria**

**City Book Store.**

**VALENTINES!**

**Comic and Sentimental!**

**Griffin & Reed.**

**Lots in Case's Astoria Are Now on Sale**

—AT THE OFFICE OF THE—  
**Astoria Real Estate Co.**

**PRICES FROM \$150 TO \$250 EACH.**

**TERMS:—One-Half Cash; the Balance in Six and Twelve Months.**

**D. H. WELCH.** **JAS. W. WELCH.**  
**D. H. WELCH & CO.,**  
**Real Estate, Insurance, General Brokers**

We have lots from \$20 up. Inside property always listed for sale. Correspondence solicited. Investments made for non-residents.  
The prices we give on property are guaranteed, and no further consultation is necessary with owners. Lots within the city limits can be bought from \$250 to \$500 for the next eight days.

Office on Water St. Near Union Pacific Wharf and Depot.  
P. O. BOX 400.

**Your Money's Worth**  
IS WHAT YOU GET AT  
**Foard & Stokes**

Groceries and Provisions.  
Everything in a First-class Store and at

**Extremely Low Figures.**  
Goods Delivered all over Town.  
The Highest Price Paid for Junk.  
**FOARD & STOKES.**

**Parker & Hanson**  
SUCCESSORS TO  
**C. L. PARKER,**  
DEALERS IN  
**GENERAL MERCHANDISE**  
New Goods Arriving Every Steamer THIS WEEK.  
**Waterproof Goods!**  
The Old Stand - Astoria Oregon.

**Stockton & Welch,**  
**Real Estate Brokers,**  
AND EMPLOYMENT OFFICE.

City, Suburban and Acreage Property For Sale.  
MAIN ST., ASTORIA, OR., P. O. Box 511. No curbstone brokers employed here

**F. H. SURPRENANT & CO.,**  
SUCCESSORS TO  
**J. O. ROSS**  
County Coroner.

**John C. Dement.**  
DRUGGIST.  
Successor to W. E. Dement & Co.  
Carries Complete Stocks of  
Drugs and Druggists' Sundries.

**First Class Undertaking**  
ESTABLISHMENT.  
New Styles, Caskets and funeral material  
Next to ASTORIAN office.

**LIDDICOAT & CRIBB.**  
Carpenters and Builders.  
Holt & McArthur's old stand, have over 200  
plates and drawings of all kinds and styles  
of dwelling-houses, ranging from \$300 to  
\$1,200. Call and see them.

**Farm for Rent**  
With forty-five head of cattle for half the  
increase. Call or write to  
O. F. JOHANSON,  
Vesper, Clatsop County, Or.

**SEALAND.**

The terminus of the Ilwaco and Shoalwater Bay Railroad. THE GREAT-  
EST SUMMER RESORT ON THE NORTHWEST COAST. Lies at the head  
of the Bay, at deep water, and only twelve miles from the bar. The coming  
County Seat and Commercial Metropolis of Pacific County. Now laid out. Lots  
on the market from \$50 and upwards.  
For particulars and full information, call on or address

**B. A. SEABORG,**  
Ilwaco, Wash.

**THE REAVEY PATENT CANT DOG.**  
**HABICHORST & CONANT,**  
SUCCESSORS TO KIRK SHELTON.

**HEADQUARTERS FOR LOGGERS' SUPPLIES.**  
Agency for  
**ATKINS' CELEBRATED SAWS.** **LANDER'S LOGGING JACKS.**  
**GENERAL HARDWARE.**

151 Front Street, PORTLAND, OR.

**The New Model Range**  
CAN BE HAD IN ASTORIA, ONLY OF  
**E. R. HAWES,**

Agent. Call and Examine It; You Will be Pleased. E. R. Hawes is also Agent for the  
**Buck Patent Cooking Stove,**  
AND OTHER FIRST CLASS STOVES.  
Furnace Work, Steam Fittings, Etc., a Specialty. A Full Stock on Hand.

**A. V. ALLEN,**  
WHOLESALE AND RETAIL DEALER IN

**Groceries, Provisions and Mill Feed.**  
**Crockery, Glass & Plated Ware.**

The Largest and finest assortment of  
**Fresh Fruits and Vegetables.**  
Received fresh every Steamer.

**SALMON HAULING SEINES**

**TRUE TAPER**

These SEINES are made true taper and from an actual scale, and will hang true  
and draw when hung in to lines, and from the

**Gold Medal 1-2 Patent Twine.**  
RIGHT AND LEFT HAND LAID PATENT ROPE,  
9 thread and larger, soft and free from kinking.

**SALMON TRAP NETS** knit from the Gold Medal  
1-2 Patent Twine, superior to the medium laid,  
stronger, more durable and Holds Tar Longer.

Letters or Telegraph shall have our Prompt and Careful Attention

**American Net & Twine Co**

Established 1842. Boston, Mass. Capital, \$350,000.  
N. B. We have the largest Netting and Twine plant. New and costly machinery  
has lately been added for knitting heavy Traps for the Columbia river, and Seines  
for the Alaska Salmon Fisheries, and the most skillful help employed.

Highest awards at Boston, 1869.—Philadelphia, 1876.—London Fisheries Exposition, 1883.