

CLARENCE BUTT
Will practice in all the courts of the state. Special attention given to probate work, the writing of deeds, mortgages, contracts and the drafting of all legal papers.
Newberg, Oregon.
Office—Second Floor in Union Block

C. R. CHAPIN
LAWYER
Practice in all courts; Probate, Deeds, Mortgages and all legal papers. Abstracts examined.

P. F. HAWKINS
Dentist
Office over First National Bank
Phone White 3-1

DR. A. M. DAVIS
Dentist
Office over Ferguson's Drug Store
PHONE BLACK 37

J. C. PRICE
Dentist
Office over U. S. Natl. Bank
Phone Black 171

Dr. E. P. Dixon
Dentist
Phones
Office, White 22; Res. Black 90

Dr. John S. Rankin
Physician and Surgeon
Office over U. S. National Bank
Office phone Blue 171
[Residence Phone] Black 115

Littlefield & Romig
Physicians and Surgeons
Office in First Nat'l Bank Bldg.
Phone, Black 31

DR. THOS. W. HESTER
Physician and Surgeon
Office in Dixon Building
Phone: Office White 22, Res. Blue 80
NEWBERG - OREGON

DR. SARAH E. SMITH
Physician and Surgeon
Office in City Hall
Office Phone—White 147
Residence Phone—Blue 58
NEWBERG OREGON

DR. FRED H. WILSON
Osteopathic Physician and Surgeon
606 1-2 First Street Newberg
Phone: Office Black 111, Res. Red 2

DR. G. E. STUART
Physician and Surgeon
Chronic diseases a specialty. Calls answered promptly, day or night.
Office: 107 S. Main St. Phone Red 96

Dr. C. E. Brown, D.V.S.
Veterinary Physician and Surgeon
Office and hospital at Gordon's Barn, College and Hancock. Phone Black 47
Residence Brownwald Ranch, Scholls. Phone 53. Call office day or night

W. W. Hollingsworth & Son
Funeral Directors & Embalmers
Calls Answered Day or Night
Lady Assistants. No extra charge
Office, White 26 Res. Black 94
Newberg, Ore.

BURNING GLASSES.
Powerful Lenses With a Few of Their Fiery Feats.

PENN'S MARVELOUS MACHINE.

The Heat Rays From This Mirror Lens Were So Intense That They Melted Garnets, Flint, Steel and Iron and Did Other Wonderful Things.

It is written that when the Roman ships besieged Syracuse Archimedes burned them to ashes by means of mirrors, and Proclus is also said to have destroyed the navy of Vitellius when those galleys besieged Byzantium, by means of burning glasses. And there is the wonderful story of Ptolemy's mirror, which, placed on the tower of the Pharos at Alexandria, represented accurately everything that transpired in all Egypt, on both land and water, with which an enemy's fleet could be seen 100 leagues away.

Descartes branded the story of Archimedes' mirrors as fabulous. But Kleber believed it to be true and made many experiments to prove his contention. He tried the effect of a number of plane mirrors and with five of the same size, placed in a frame, contrived to throw the rays reflected from them to the same spot at a distance of more than 100 feet, and the degree of heat obtained led him to conclude that by increasing the number of mirrors he could increase the heat to any desired degree. He made a voyage to Syracuse to inform himself exactly of local conditions. From his observations he was convinced that the Roman galleys could not have been more than thirty paces, or less than 100 feet, from the place where Archimedes mounted his unique engine of destruction.

Buffon constructed a machine consisting of a number of mirrors, and in his first experiment, using twenty four mirrors, he set fire to pitch and tow at a distance of seventy feet. Then, with a kind of polyhedron, consisting of 168 pieces of plain looking glass, each piece six inches square, boards of beechwood were set on fire at a distance of 165 feet. Next there were employed 360 plain mirrors, each eight inches long and six broad, and with all the mirrors in use wood could be ignited at a distance of 225 feet. The last machine of this nature constructed by Buffon contained 400 mirrors, each six inches square, and with the rays from this he could melt lead and tin at a distance of 150 feet.

The most powerful burning mirror of modern times was constructed by one Penn, an English artisan. He succeeded in producing a burning lens no less than three feet in diameter, and this cost the man who was financing the experiment upward of \$3,500. Its power was astonishing, and the hardest and most solid substances, such as iron, flint and steel, melted like wax when exposed to its intense focus, only a few seconds being required. A diamond weighing ten grains was exposed to the rays for thirty minutes and was reduced to six grains by the process. During the operation the stone opened and foliated like the leaves of a flower and emitted whitish flames; but when it had closed again it still bore a polish and was identical in shape, though four grains lighter and proportionately smaller. Ten cut garnets melted and ran together in a few seconds. In fact, nothing was found that could resist the terrible heat generated. This remarkable machine was afterward taken to China by an officer connected with the British embassy and finally lost sight of.

With these modern experiments to consider, the tale of the burning of Marcellus' ships seems more probable. La Brocquiere, a traveler of the fifteenth century, says that at Damascus they made mirrors of steel that magnified objects "like burning glasses." The telescope was not invented till early in the seventeenth century. This would seem corroborative evidence concerning Ptolemy's Euergetes' mirror, which La Brocquiere does not mention and of which he perhaps never heard. Abulfeda, in his description of Egypt, says that the wonderful mirror was made of Chinese iron and that soon after Mohammedanism prevailed the Christians destroyed it by straining.

In a work published at Marseilles in 1703 Father Abbot argues ingeniously in favor of the probable existence of the mirror, but contends that its power was far less than recorded in the legend.

"If this mirror existed," he says, "it is probable that it was the only one of its kind and that no other means had then been found of viewing distant objects distinctly. It must therefore have been considered as a great wonder in those times and must have filled with astonishment all who saw its effects. Even though its effects had not been greater than those of a small telescope, it is natural to think that those effects were exaggerated beyond all probability and even possibility, as commonly happens to rare and admirable machines and inventions."—Bennett Campbell Hall in Cleveland Leader.

A Disclosure.
Little Willie was instructed by his teacher, Mr. Robinson, to write an essay on the subject of "Antidotes." This was his brief essay:

"My antidote on chocolate, matins, novels, opium and you."—London Telegraph.

Capital is not what a man has, but what a man is; character is capital. Honor is capital.—Meredith.

SPELL OF THE PRAIRIES.

Where the Ocean of Land Seems Vaster Even Than the Sea.

I had believed that I realized the vastness of the United States without having actually traveled across the country, yet I had not realized it at all, and I do not think that any one can possibly realize it without having felt it in the course of a long journey. I had imagined that I understood the prairie without having laid eyes upon them, but when I raised my window shade that morning and found the prairie stretching out before me I was as surprised, as stunned, as though I had never heard of them before, and the idea came to me like an original thought: How perfectly enormous they are! And how like the sea I had discovered for myself the truth of another platitude.

For a long time I lay comfortably in my berth, gazing out at the appalling spread of land and sky. Even at sea the great bowl of the sky had never looked so vast to me. The land was nothing to it. In the foreground there was nothing. Nothing met the eye in all that treeless waste of brown and gray which lay between the railroad line and the horizon, on which were discernible the faint outlines of several ships—ships which were in reality a house, a windmill and a barn.

Presently our craft—for I had the feeling that I was on a ship at anchor—got under way.

On we sailed, over the ocean of land for mile upon mile, each mile like the one before it and the one that followed, save only when we passed a little fleet of houses, like fishing boats at sea, or crossed an inconsequential wagon road, resembling the faintly discernible wake of some ship long since out of sight.

Presently I arose, and, joining my companion, we went to the dining car for breakfast. He, too, had fallen under the spell of the prairies. We sat over our meal and stared out of the window like a pair of images. After breakfast it was the same. We returned to our car and kept on gazing out at the eternal spaces.

Now and then in the distance we would see cattle, like dots upon the plain, and once in a long time a horseman ambling along beneath the sky. The little towns were far apart, but each little settlement had its wooden church, and each church its steeple—a steeple crude and pathetic in its expression of effort on the part of a poor little hamlet to embellish more than any other house the house of God.—Julian Street in Collier's.

Bayonets in Battle.
The bayonet is used in warfare as much as ever its chief value is its moral effect upon a line of troops. The reasons why a comparatively small number are actually killed by the bayonet are that those charged before the attack or those attacking are shot down or fall back before the concentrated fire. The hand to hand conflict with bayonets is comparatively rare because one or the other side has given way before grips are reached. The soldiers in the United States army are trained in this type of fighting.—New York Tribune.

The "University" of Ham.
The town of Ham has perhaps the most notable chateau in France. As ancient as Rheims cathedral, its enormous walls have held as prisoners Joan of Arc, Conde, the Huguenot leader, and Prince Louis Napoleon after his attempt at Boulogne in 1840 to win over France. Here for six years he was a compulsory student, as he himself put it, in the "University" of Ham until his escape in 1846 disguised as a workman.—London Chronicle.

The Fishing Banks.
Newfoundland would be nothing without that great submarine plateau known as the "banks," on which all the fishing is done. At a small station within the edges of the great bank that the cod loves so well the sea is quite smooth. It is usual for vessel, fishing on the bank to inquire from those that have arrived from the open sea as to what sort of weather it is "abroad."

Too Commercial.
Bobbie—I saw you kissing sister again last night. Castleton—Well, I'm not going to pay you a quarter this time. Ten cents is enough. Bobby—That's the tendency in these days, to cut out the middleman and let the goods go straight from the producer to the consumer without charge.—Life.

Liquid Hydrogen.
The boiling point of liquid hydrogen is 4.3 degrees C. absolute, or 293.7 degrees below common zero C. A temperature of 273 degrees below zero C. is absolute, and physicians are within 4.3 degrees of this intensely interesting scientific point when handling liquid hydrogen.

The Whole Story.
"I hear you are giving up your charge," said one aged and infirm minister to another the other day. "How are your people taking it?" "Oh, well," was the answer, "I'm resigning and they're resigned."—Liverpool Mercury.

Helps the Memory.
Six—You may depend upon it that your friends won't forget you as long as you have money. Dits—That's right, especially if you have borrowed it from them.—Boston Transcript.

Preserve your just relations to other men. Their misconduct does not affect your duties.—Epictetus.

FRIGATE BIRDS IN FLIGHT.

Their Amazing Power and Perfect Command of the Air.

The haunt of that remarkable creature, the frigate bird, is the southern ocean, where it makes its nest on some lonely coast or remote island. For that purpose it selects the Crozet, Amsterdam or Kerguelen, along with booby gannets, "wide awake" terns, the beautiful boatwain birds or the queer kelp plover. It nests from the trees as it flies a few sticks and fabricates a rude platform on top of some bush or tree, or even upon a ledge of rock, and lays and broods over a single egg—all that it needs to produce in a situation so safe and so fiercely protected.

The frigate bird is large, its slender but powerful wings spreading at least four feet from tip to tip; while the body is no less than forty inches from the hook of the great beak to the tip of the long forked tail. The color is blackish, with purple and green glossings; the feet are black, the bill bluish, and the pouch, which is peculiar to the male and is inflated in flight, is scarlet, as also is a ring about the eye. The pouch indicates the close relationship of these birds to the pelicans, but their habits are more like birds of prey, and one good name for the race is man-of-war hawk.

On the wing they show perfect command of the air. Their flight is swift, bold and full of grace. They are apparently untrailing, keeping away from land for weeks at a time, soaring to enormous heights and descending with amazing speed. They can ride out a hurricane, scudding low and taking a reef in their wings, so as to expose only the largest quills to the gale. They are able to support themselves for long hours without apparent motion, and it is a beautiful sight to watch one of them floating overhead against the deep blue sky, the long forked tail alternately opening and shutting like a pair of scissors and the head swinging slowly from side to side, as if searching the horizon. Frigate birds feed on surface swimming fish, squids, crabs and young turtles.

TRAINED FOR THE GAME.

He Played His Part Well and Won When His Chance Came.

Senator Harry Lane, who is also an M. D., was once superintendent of the Oregon State Insane asylum. One day he was telling a group of his colleagues some of his experiences while there. He said when he took the job he ordered the walls around the institution torn down, arguing that if any real lunatics escaped they would be detected and returned, but that if any escaped who could not be detected they did not belong there anyway.

"A patient came along one day," he said, "and began a performance that was new to all of us. The inmates of the asylum were turned out on the big lawn each morning for exercise. Well, the man I was talking about immediately began to run on a dog trot from one end of the building to the other. The patients having specialties of their own didn't notice him.

"Back and forth he went, not only on the first morning, but on every morning for months and months. He wore a path along the side of the asylum. We couldn't help but admire his perseverance. He certainly stuck to his job. But one day Mr. Man, the moment he was let out, wriggled away from the crowd and started across the fields. Guards followed in pursuit. Trained for months, and that had been his game all along, he rapidly made monkeys of the guards. He'd let them get almost within reaching distance and then he would sprint. So he vanished, and we never heard of him again."—St. Louis Post-Dispatch.

Benjamin Bunk.
At one time in England a Benjamin Bunk meant a deserter from the army. Forty—probably fifty—years ago there was a red nosed comedian, one Teddy Mosedale, who, dressed up in a burlesque uniform of the Tommy of the day, set the patrons of the old Mogul (now the New Middlesex and an opera house) into fits of laughter with the refrain:

I'm Benjamin Bunk, I'm Benjamin Bunk. And the battle did alarm me, I'm Benjamin Bunk, who got in a tank. So they kicked me out of the army!—London Standard.

Rosemary.
The home of the rosemary was originally in the south of Europe, more especially in Italy, where it grows to the height of six or eight feet, either being trained upward from the ground or embedding its roots in an old wall it grows in three varieties—gold, silver and green.—London Mail.

It Got Them Out.
The "Kent street ejection," common in England in days gone by, consisted in taking off the front door. It was originated by landlords in the Kent street (Southwark, London) district, where many tenants were in arrears for rent.—London Mail.

Errors of Others.
It is foolish to pay no attention to the errors of others and not to help them out of them. Aiding others to be strong is the best way to strengthen ourselves.

Pains.
Silliness—Pains are symbolic of victory. Cynics is that the reason a girl uses them as decorations at her wedding?—Town Topics.

To live is to change, and to be perfect is to have changed often.

FIRST MOVING PICTURES.

They Were Shown in May's Invention Called the Phasmatope.

"Who invented moving pictures and where were they first shown?" The answer is easy if you were at the Academy of Music on the evening of Feb. 5, 1870, for it was there (that Henry R. Heyl gave the first exhibition of his invention, "the phasmatope." He also exhibited it before the Franklin institute, March 16, making the first exhibition of photographs to represent in motion living subjects projected by a lantern upon a screen. The following paragraph appeared in the program:

"This is a recent scientific invention, designed to give to various objects and figures upon the screen the most graceful and lifelike movements, the effects in the familiar zoetrope, where men are seen walking, running and performing various feats in most perfect imitation of real life. This instrument is destined to become a most valuable auxiliary to the appliances for illustration, and we have the pleasure of having the first opportunity of presenting its merits to an audience."

At that time the flexible ribbon films and instantaneous exposures were unknown, and it was necessary to limit the views to those that could be taken by time exposure upon wet plates, which plates were afterward reproduced as positives on very thin glass plates. The device for holding them consisted of a skeleton wheel divided into eighteen parts, into which the plates were fastened and the wheel then revolved before a lantern's rays, causing each picture to register exactly with the position just left by the preceding one. The wheel was revolved by hand and controlled by a ratchet and pawl mechanism, enabling the operator to control the movements of the waltzing figure, so as to synchronize with the music played by the orchestra, and when showing those of an acrobat he would come to a full stop when the acrobat would complete a somersault.—Philadelphia Ledger.

Burning News.

At a recent conference of clergymen in this city a venerable delegate marched up to the reporters' bench and said:

"Here's a piece of news for you," holding out a piece of letter paper, "only I'd like it to appear in all the papers. I don't want to show any favoritism."

One of the reporters glanced it over. "Thank you very much," he said. A moment later, when the clergyman had retired, the reporter passed the news around. It was to the effect that the old gentleman had had a birthday cake the night before, with eighty candles on it.—New York Post.

Scared Him.

During the week Brother Gettitt had, knifed Mr. Lamby in a stock deal, had foreclosed a mortgage on his house, sued him on a demand note and attached his personal property. Sunday morning Mr. Lamby went to church, thinking to hear something that would make his heart more peaceful. After the services Brother Gettitt came to him, grasped him warmly by the hand and asked him what condition his immortal soul was in.

"Are you thinking of foreclosing on that, too?" asked Mr. Lamby desperately.—Chicago Post.

A Crusher.

A consequential little man entered the commercial room of a big hotel not long back and gave a vigorous pull at the bell. As no one answered he rang again more loudly than before. A maid servant then came in, and the following colloquy took place:

Servant—Who rang that bell? Little Man (making most of his height)—I did.

Servant (acrossfully)—And who lifted you up to it?—London Telegraph.

The Secret.

"I say," said Berkey to his wife yesterday at dinner, "you didn't say anything to any one about what I was telling you the night before last, did you? That's a secret."

"A secret! Why, I didn't know it was a secret," she replied regretfully.

"Well, did you tell it? I want to know."

"Why, no; I never thought of it since. I didn't know it was a secret."—Boston Globe.

Napier on War.

General Sherman never coined the aphorism so frequently attributed to him, though he did his honest best to make war fit his alleged definition. What he did say was, "War is cruelty, and you cannot refine it." Napier said, "War is hellish work." Both understated the fact.—World's Work.

Her Compliment.
Little Johnnie—Mrs. Talkendown paid you a big compliment.
Mother—Did she, really? Well, there's no denying that woman has sense. What did she say?
Little Johnnie—She said she didn't see how you came to have such a nice little boy as I was.—Hartford Times.

IMPORTANT EVENTS

1914-15 AT OREGON AGRICULTURAL COLLEGE

WINTER SHORT COURSE—JAN. 4-30
Agriculture, including Agronomy, Animal Husbandry, Dairying, Horticulture, Poultry Husbandry, Insects, Plant and Animal Diseases, Cereary Management, Marketing, etc. Home Economics, including Cooking, Home Nursing, Sanitation, Sewing, Dressmaking and Millinery. Commerce, including Business Management, Rural Economics, Business Law, Office Training, Farm Accounting, etc. Engineering, including Shopwork and Roadbuilding.

FARMERS WEEK—FEBRUARY 1-6
A general clearing house session of six days for the exchange of dynamic ideas on the most pressing problems of the times. Lectures by leading authorities. State conferences.

EXTENSION SERVICE
Offers lectures, movable schools, institutes and numerous correspondence courses on request.
MUSIC: Piano, String, Band, Voice.
No tuition. Reduced rates on all rail roads. For further information address, The Oregon Agricultural College, (7-124 to 1-1) CORVALLIS, OREGON

The only way to get the genuine **New Home** Sewing Machine is to buy the machine with the name NEW HOME on the arm and in the legs. This machine is warranted for all time. No other like it. No other as good. The New Home Sewing Machine Company, ORANGE, MASS.

Collier's
The National Weekly

First Time in Clubs
Until this year Collier's has been sold at \$5.50. Now the price is \$2.50 and we have secured a concession whereby we can offer it at a still further reduction in connection with this publication.

Special Offer to Our Readers
Recognizing the great demand for Collier's at the new price, we have made arrangements to offer it and our own publication each one year for the price of Collier's alone. This is a limited offer and must be taken advantage of promptly.

What You Get in Collier's
Collier's is the one big, independent, fearless weekly of the whole country. Not only is it the good citizen's hand book, but it is also a magazine for the whole family. Among the things that a year's subscription gives are:
1000 Extra Photos
250 Short Stories
150 Short Novels
100 Short Plays
12 Complete Novels
Collier's . . . \$2.50 But for only Graphic \$1.50 \$2.50

In the County Court of the State of Oregon For Yamhill County.

In the Matter of the Estate of N. F. Nelson, Deceased. **NOTICE OF HEARING**
Notice is hereby given that the undersigned executor of the above entitled estate has filed his Final Account herein and that the Honorable Vice W. Pearce, Judge of the above named Court, has designated Saturday at ten o'clock in the forenoon (10:00 A.M.) of January 10th, A.D. 1914, in the court room of the County Court at the Court house in the City of McMinnville, Oregon, as the time and place for hearing objections to the said Final Account and for the settlement thereof. Sworn to and Executed by the Estate of N. F. Nelson, Deceased, Percy G. Stroud, Attorney.

Dated at St. Johns, Oregon, December 12th, A.D. 1914.
Date of first publication, Thursday, December 17th, A.D. 1914.
Date of last publication, Thursday, January 10th, A.D. 1914.

Monuments.
White Bronze made from refined zinc, will never moss grow, deface or lettering grow dim.
J. C. Gregory, Agt., Newberg, Ore.

Weekly Oregonian and Graphic both one year \$2.25.