

THE STORY OF THE ATOM

No. 3: The First Mention of Atoms



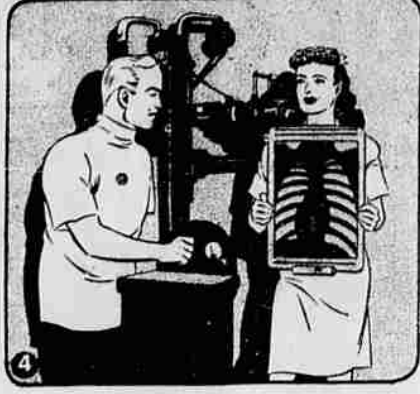
(1) Smashing of the atoms in the bomb that blasted Hiroshima resulted from a vast store of information about the atom and the way atoms are constructed. The idea of the atom dates back to ancient times. In about the year 375 B.C. in Greece, Democritus, the "laughing philosopher with an untidy grey beard," taught his students that a stone is built up of very small particles, just as a temple is constructed of stones. He called these particles "atoms" and said they were the ultimate of smallness. They could not be divided further.



(2) Through the long Dark Ages of Europe and the Renaissance very little was added to the knowledge of the atom. Alchemists dreamed of making gold by breaking up and combining common materials. They puffed around their laboratories, mixing, boiling and distilling strange concoctions. Their work generally ended in disappointment.



(3) Then toward the end of the 18th century came the dawn of modern science. In the 19th century, great advances were made in the science of electricity, high lighted by the inven-



(4) By 1895 chemists had done wonders with light, electricity, the chemical elements and other mechanisms of nature to produce many startling phe-

nomena and to add to the comfort of living. To many persons of the Gay Nineties, scientists seemed to have arrived at successful formulas for every natural occurrence, such as the force of gravity, the burning of fuel, generation of electricity and the behavior of light. Then Wilhelm Konrad Roentgen in Germany started the world with his invisible X-rays and could "see through" solid objects and make a picture of such things as the bones of the hand on a photographic plate in utter darkness.

Tomorrow: Radium, Another Stepping Stone to the Atomic Bomb.

Jap Casualties Set at 5 Million

SAN FRANCISCO, Sept. 6 (UP)—Japan reported today she suffered 5,639,350 casualties during the Pacific war, including 554,350 civilians killed or wounded in air raids.

The Japanese army listed 4,470,000 of its 54,920,000 casualties simply as "sick."

The toll was disclosed in statistics submitted to the closing session of the imperial diet today, radio Tokyo said.

Tokyo said other official statistics showed the allies sank 2,000 Japanese ships totaling 7,800,000 tons and by blockade had completely cut off imports of rice. The broadest divided the war casualties as follows:

Army - 310,000 killed, 146,000 wounded, 4,470,000 sick including 40,000 who subsequently died. Total: 4,926,000.

Navy - 157,365 killed, 1,430 died from sickness, 1,483 missing. Total: 160,278.

Civilians - 211,309 killed, 313,041 wounded. Total: 524,350.

JAPS GIVE UP ARMS

SINGAPORE, Sept. 6 (UP)—More than 85,000 Japanese troops laid down their arms and evacuated Singapore today as British imperial forces moved in to re-occupy the great far eastern naval base.

Former Resident of La Grande Dies

Catherine Klostra Lappin, 65, died Aug. 25 at Council, Ida, according to word received here today.

Born in Holland, she came to the United States at the age of three years with her parents, Albert and Margaret Klostra. She lived in La Grande until her marriage with Charles F. Lappin in

1900 at Union. She is survived by four children, Fred and Charles, Jr., of Council, Ruth Chapman and Alice Sheedy of Portland, two sisters, Mattie Harmon of Portland and Margaret Dodson of Los Angeles, six grandchildren, and other relatives. Interment was at Weiser, Ida, in the family plot. The principle of ball bearings was patented in 1906.



From where I sit... by Joe Marsh

Jeb Wilkins loses the wanderlust

Jeb Wilkins was always a great one for traveling. Two weeks a year he used to cover more ground than a Pullman conductor. Used to come back from vacations tuckered out. But the war has changed all that. Gasoline shortages - and saving space on trains for service men - has got Jeb spending his vacations home... and liking it!

"Never knew staying home could be such fun," says Jeb. "Outdoor barbecues... sitting around and chatting with the

kids and family... basking in the sunshine with a glass of cold beer... that's living," Jeb says. From where I sit, Jeb's discovered what millions of other Americans have learned through the war. Whether your choice is beer or buttermilk... horse-shoes or checkers... a quiet book or a bit of friendly conversation... there's no place like home... where we grumble the most and get treated the best!

Joe Marsh

Copyright, 1945, United States Brewers Foundation

City News In Brief

MANAGER'S REPORT - City manager's report for week ending Sept. 1, 1945: General receipts, \$805.36; general disbursements, \$257.95; cash on hand, \$49,474.39; water receipts, \$708.17; water disbursements, \$3.30; cash on hand, \$10,237.15.

TWO ARRESTED - Fozzy Wilson, Elgin, was arrested by city police last night on charge of being drunk. He was released on \$15 bond for appearance in city court today, police records show. John Davis, Elgin, was arrested early today on charge of being drunk and disorderly. He is being held for appearance in city court today, police records show.

TWO SUMMONED - Robert Earl Red, La Grande, received a traffic summons last night for speeding 40 miles in a 25 mile zone. William Henry Harrison, La Grande, received a traffic summons yesterday afternoon for speeding 35 miles in a 25 mile zone. Both men were cited to appear in city court today, police records show.

JAY CEES TO MEET - Tuesday night has been designated membership night for junior chamber of commerce members. All old members have been asked to attend and bring as a guest a prospective member. Fall projects will be discussed. The meeting will be held in the Stein cafe banquet room.

TWO LEAVE ARMY - Union county men recently discharged from the service include: Eugene Phillip Winters, army; and Gordon E. Clark, army.

CASE DISMISSED - Paul Richard Whaples, transient, was arrested by state police yesterday on charge of driving without a stop light. He was taken before Justice Court Judge George H. Curry, who dismissed the case.

FINED - Frances Alta Davis, transient, was arrested by state police yesterday on charge of violation of the basic rule. She was taken before Justice Court Judge George H. Curry, who fined her \$15.

New Books Added To Public Library

New books recently added to the shelves of the public library are:

Non-Fiction

A Child's Personal Religion, by Noel Nicholl. Best Known Works of Plato. Your Problem—Can it be Solved, by Dwight Bradley. Born That Way, by Earl Carlson. There Are Sermons in Stories, by William Stidger. Engineers and Fireman's Manual, by Mark Herick. Planning to Build, by Thomas Creighton. Better Lawns, by Howard Sprague. Careers in Science, by Philip Pollack. Future Perfect, by Bernice Bryant. Boys Will be Men, by Helen Burnham. There's Laughter in the Air, by Jack Gaver. More Lives Than One, by Captain Tim Healy. Fighting Liberal, by George Norris.

Fiction

Mr. Allenby Loses the Way, by Frank Baker. Silver Moon Cottage, by Sara Ware Bassett. The Blue Danube, by Ludwig Bemelmans. Not a Leg to Stand on, by Miles Burton. Artie Greengroin, Pfc., by Harry Brown. The Red-Haired Lady, by Elizabeth Cor-

Hospital Notes

St. Joseph's Hospital—Admitted: Mrs. Fred Hildebrand, La Grande, medical; Harry Etherington, La Grande, x-ray. Dismissed: Ray Smith, La Grande; Mrs. Miles Silver, Union.

Grande Ronde Hospital—Admitted: Daniel O'Connell, Robert Bradshaw, La Grande, Glen Sands, Cove, medical; David Barney, La Grande, Mrs. Roy Foreman, Cove, surgery.

Death Visits the Apple Hole, by A. B. Cunningham. The Curse of the Bronz Lamp, by Carter Dickson. Jassy, by Nora Lofts Black Moon, by Clark McMeekin. The Moved Outs, by Florence Means. The World, the Flesh and Father Smith, by Bruce Marshall. Crying at the Lock, by Adeline Rumsey. Chucklebait - Funny Stories for Everypone, by Margaret Scoggin, editor. Dragon Harvest, by Upton Sinclair. That Girl From Memphis, by Wilbur Daniel Steele. Put Off Thy Shoes, by Ethel Voynich. Silence in Court, by Patricia Wentworth. The Wayfarers, by Dan Wickenden. Constance Herself, by Margaret Widemer.

FIREWORKS AGAIN

SALEM, Sept. 6 (UP) - Gov. Earl Snell today revoked the Oregon civilian defense act governing public use of fireworks.

Advertisement for bif insect spray. Text: KILL FLIES with bif INSECT SPRAY. bif KNOCKS 'EM STIFF. A WILCO PRODUCT.

HANGING SLUMBERER

The orang-utan sleeps in the swaying tree-tops without fear of falling. His hands automatically lock themselves to the boughs with a vise-like grip.

MAIL OVERSEAS XMAS GIFTS

SEPT. 15 TO OCT. 15 Make Your Selections Here!

Large advertisement for VITAMINS. Text: VITAMINS of Nationally Known Brands Are Featured Here! Use Them Regularly to Guard Against Any Vitamin Deficiency! Vitamin balance is important to health and vitality. Correct daily intakes can be secured by taking recommended amounts in simple capsule form. They are compounded to give needed minimum requirements of all ages. Both individual and family size containers are carried in our complete vitamin stock.

Advertisement for HEAD COLD VICKS VA-TRO-NOL. Text: HEAD COLD Stiffness Quickly Cleared. VICKS VA-TRO-NOL 24c.

Advertisement for ALKA-SELTZER. Text: ALKA-SELTZER For Relief in COLD DISTRESS Try It Today. 60c Size 49c.

Advertisement for BAX VITAMIN CAPSULE. Text: We highly recommend BAX THE Complete VITAMIN CAPSULE. 15 DAYS' SUPPLY... 69c. 30 DAYS' SUPPLY... \$1.23. 60 DAYS' SUPPLY... \$1.88. 180 DAYS' SUPPLY... \$4.79.

Advertisement for VICKS VAPORUB. Text: VICKS VAPORUB 35c SIZE RELIEVES COLDS, MISERY 27c.

Advertisement for McKesson's BEXEL VITAMIN B COMPLEX CAPSULES. Text: McKesson's BEXEL VITAMIN B COMPLEX CAPSULES. Made by a great laboratory and sold to you with this guarantee: take Bexel for ten days. If at the end of the time you don't feel better, your money back!

Advertisement for FLY SPRAYS! Text: FLY SPRAYS! Flies are carriers of disease on Farm and in Home! Use these spray to get rid of them! Flit, pint... 25c | Shell Tox, pt. 23c. Quart... 45c | Quart... 43c. SURE DEATH POISON FLY PAPER 8 SHEETS FOR ONLY 5c.

Advertisement for PAYLESS DRUG STORE. Text: PAYLESS DRUG STORE IT PAYS TO BUY AT PAYLESS.

Advertisement for VIGRAN SQUIBB High Potency A-B-D-G with Vitamin C CAPSULES. Text: New Low Price. VIGRAN SQUIBB High Potency A-B-D-G with Vitamin C CAPSULES. 100 CAPSULES Now \$2.89.

Advertisement for ONE A DAY MULTIPLE VITAMINS. Text: ONE A DAY MULTIPLE VITAMINS 8 Vitamins in One Capsule. 80 for 1.96.

Advertisement for Vita-Kaps Multiple Vitamins. Text: Vita-Kaps Multiple Vitamins. Contain adult daily requirement of A & D, B1, B2, B complex and vitamin C. 100 Capsules for Only \$2.96.

Advertisement for VITA-HEALTH. Text: VITA-HEALTH 9 Vitamins, 8 Minerals! 3 Months Supply \$3.98.

Advertisement for UPJOHN'S UNICAPS. Text: UPJOHN'S UNICAPS 100 for \$2.96 Only.

Advertisement for bif INSECT SPRAY. Text: bif INSECT SPRAY Quick Deaths to MOTHS FLIES... ANTS... BUGS. PINT... 25c. QUART... 45c.

Advertisement for Eastern Oregon Light & Power Company. Text: NO FARM HAND C'N BEAT 'LECTRICITY! CHEAP ELECTRICITY Means BIGGER PROFITS LESS LABOR. Farmers really appreciate the lift that "Reddy Kilowatt" - "The extra farm hand," can give. No job is too big for CHEAP, DEPENDABLE electric power. Look over your farm, see where you can put "Reddy" to work... then call your local Eastern Oregon representative and ask him to help you get this farm hand "on the job." "Reddy's" low pay and hard work helps to make for bigger profits with less labor.



NABBED AT LAST—One of the last of Hitler's henchmen to be taken by the allies is Martin Bormann, above, chief deputy of the Nazi party, listed as one of the most-wanted major war criminals. Bormann rose to power as Hitler's right-hand man after the disappearance of Rudolph Hess in 1941. He'll be an early defendant at the Nuremberg trials.

Advertisement for Eastern Oregon Light & Power Company. Text: Eastern Oregon Light & Power Company. FARMERS—Ask your local Eastern Oregon representative to reserve your copy of the valuable booklet, "Our Aim - 100% Rural Electrification." It's FREE.