

Basic Facts of H-Bomb Are Open Book to All Of World's Scientists

Theory of Super-Explosive Was Known to Physicists Even Before Atom Was Split

(Following is the second of six dispatches prepared by the American Society of Newspaper Editors' committee on atomic information in collaboration with the Bulletin of the Atomic Scientists, and distributed by the United Press.)

There is no hydrogen bomb "secret," any more than there was ever an American-held basic secret of the atom.

Nor is it a secret to Generalissimo Stalin that the hydrogen bomb is a weapon particularly suited to destroying America's civilization.

A hydrogen bomb, when and if one is built, may be able to demolish New York or Washington in a split second. The United States has many such targets, some within reach of a bomb-carrying submarine or freighter that could creep into a harbor and deposit its cargo.

The Soviet Union has but a few: its industries are scattered and its major cities land-locked and well ringed by defenses.

These are some of the open secrets about the hydrogen bomb discussed in the issue of the Bulletin of the Atomic Scientists.

When it comes to the H-bomb's basic scientific facts, the fact is there are no facts to hide.

In 1946 the Bulletin of the Atomic Scientists received a copy of a book by a distinguished Austrian scientist named Prof. Hans Thirring. It contained a whole chapter about the reactions on which a superbomb might rely.

Use "Heavy Hydrogen" This week they reprint Mr. Thirring's article, and this week they say:

"These facts were familiar to nuclear scientists everywhere in the world even before the discovery of uranium fission."

An H-bomb, we now learn by reading Mr. Thirring and others, would be made not from ordinary hydrogen—the stuff in your drinking water—but from a rarer "heavy hydrogen" called deuterium. The deuterium will be mixed, it seems likely, with a still-rarer "heavy heavy hydrogen" known as tritium.

You can make small quantities of tritium by bombarding the element lithium with neutrons in an ordinary atomic pile.

While you could theoretically use an infinite amount of hydrogen in the H-bomb, and theoretically make a bomb 1,000 times more powerful than the A-bomb—in practice it might have to be far smaller, just for convenience.

If a bomb were 1,000 times more powerful than the Hiroshima A-bomb, it could obliterate almost all of Greater New York or Moscow or London.

May Take Years Scientists today know the basic H-bomb theory, but cannot be sure until they try that it will work. Dr. Hans A. Bethe, one H-bomb architect, has predicted that completing it will take "several years." Other estimates have been shorter.

The H-bomb, if it works, could easily dwarf today's A-bomb in

power. It would be a betrayal of the American people what the decision to develop hydrogen bombs will involve, what the meaning of the hydrogen bomb is, or what the cost of the indispensable defense measures must be. Yet these are things the people must know."

Cornell's Dr. Bethe and Illinois University's Dr. Frederick Seitz are among 12 physicists who have said the United States should build the H-bomb only if it pledges never to be first to use it.

"Betrayal of Christianity" This bomb is no longer a weapon of war, but a means of extermination of whole populations. Its use would be a betrayal

Foundation Gives Total of \$89,000 in '49

13,000. Benefit From Health, Welfare, Educational Funds

The Indianapolis Foundation in 1949 spent \$89,521.17 in extending health, welfare and educational benefits to more than 13,000 persons.

Addition of four new donors to the Foundation permitted expenditure of nearly \$11,000 more than the 1948 total. Director Paul M. Ross said today in his annual report.

The new bequests, totaling \$1,204,500, came from John H. Wharton, Mrs. Pearl H. Malott, Charles N. Thompson and the Delavan Smith trust.

Assumption of the bequests increased the Foundation's principal to \$4,487,177, compared with \$3,282,677 in 1948.

Fourth Bank Added A fourth bank, the American National, has been added to the trust banks handling funds of the organization. Others are Fletcher Trust Co., Indiana Trust Co. and Union Trust Co.

Largest contribution by the Foundation in 1949 went to the Community Fund which received \$27,500. The Visiting Nurse Association received \$14,409 and Indianapolis Public Schools \$12,000 for 38 university and 70 high school scholarships.

New demonstration programs included the city's first class for pre-school, hard-of-hearing children and their parents, assisting finance construction of the new Child Guidance Clinic of Marion County and an appropriation to Civic Films, Inc., a non-profit group which shows historical films to school and civic organizations.

REDS SLOW TRUCKS BERLIN, Mar. 21 (UPI)—Thirty German trucks were piled up at the Soviet Helmstedt checkpoint 110 miles west of Berlin today by a Russian slowdown of traffic.

of all standards of morality and of Christian civilization itself," they say.

Yet many scientists would probably agree with Dr. Louis Ride-nour, Illinois graduate dean, writing in the current Scientific American:

"Once it is decreed that people are to be killed, the 'moral' question is fully settled. The instructions of that killing are not at all affected by humane or moral questions. It was probably far more unpleasant to be disemboweled by the 18-inch sword of the Roman soldier than it will be to vanish in the flash of a nuclear reaction."

(Tomorrow: "Back to the laboratories.")

Riding School Romance Leads to Altar



The marriage of Holly Johnson and Evan Coward in St. Lawrence Church, Upminster, Essex, England, got off to a fast pace. Mr. Coward is seen leading his bride mounted on her favorite horse, Iron Duke, after the wedding. The couple met at a riding school, where both are pupils.

Landlords Hurl Political War Threat

Warn of Reprisals At Polls; Demand Definite Stand

City Councilmen today faced threats of "political reprisals" if they take no action in the highly controversial rent control issue.

Climaxing a stormy session last night, Henry Werking, president of the American Home Owners Union, demanded that councilmen "take a definite stand" on the matter.

Jaegerman Explains Stand "This thing has reached the heights of stupidity," Mr. Werking said. "It is high time Indianapolis landlords know where they stand. If this Council doesn't give us an answer on whether or not rent controls will be continued or stricken from the books as we demand, the whole issue will be thrown into the fall election."

Proponent of immediate decontrol, Republican Councilman Donald Jameson, told indignant property owners he purposely fought for a delay in voting on the hot issue because he "hoped to gain time and win support for passage of the decontrol resolution."

Fast Time Voted For the second time in as many years, the Council, by an 8 to 1 vote paved the way for Indianapolis taxpayers to operate "and do business" on Daylight Saving Time.

The motion for adoption of fast time was introduced by Democrat J. Porter Seidensticker, who authored a similar motion last year.

A second resolution introduced by Mr. Seidensticker, sets the official time for convening Council meetings from 7:30 p. m. to 8:30 p. m.

The Indianapolis champion, who could be a student of a

Sacred Heart Gives Nine Cage Awards

Nine basketball awards have been made to members of the Sacred Heart High School basketball team.

They include Ed Butler, Ray Riley, Al Rucker, Gene Hemmelgarn, Philip Seyfried, John Dwenger, Dallas Kelsey, Don Clark and Harlan Petty.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

next year's team. Riley, who topped the county with 17.5 points per game, and Ed Butler, star football and basketball player, have been given Catholic character awards. The awards are given to seniors with outstanding mental attitude and athletic ability.

Petty was named to captaincies

Times Gives Practice Lists For Spelling Bee Entrants

New Idea Designed to Help Contestants Prepare for Annual Competition

By ART WRIGHT

What kind of words are you going to be asked to spell in this year's Times Spelling Bee?

We can't tell you the exact words, of course. But The Times is going to furnish you with practice words every day from now until the preliminary spellings begin the week of Apr. 10.

Some of those words will be in the official word list. Some also might be in the official word list in the National Spelling Bee where the Indianapolis champion will compete in May.

To get you off to a good start, here's a long list of them:

abandon	agenda
abbreviation	agitate
abdomen	agricultural
abhor	aileron
abhorrence	alfalfa
abolition	appalled
abominable	apparatus
abscissa	appeal
abstinence	appease
absurd	appendicitis
affidavit	approbation
affiliation	arable
afraid	arbor
aggravate	arborescent
aghost	

Some of those words might appear difficult. But remember, these are practice words and it's good practice to work on some of the harder words so the easier ones won't give you trouble.

All the words won't be in the preliminary list, especially in the early preliminaries.

In addition to the practice words, be sure to study your regular school work. Conscientious study will go a long way toward making you this year's champion.

Age Limits Any grammar school pupil who will not be 16 years of age before June 1 may compete. Preliminary spellings will be held at city park community centers.

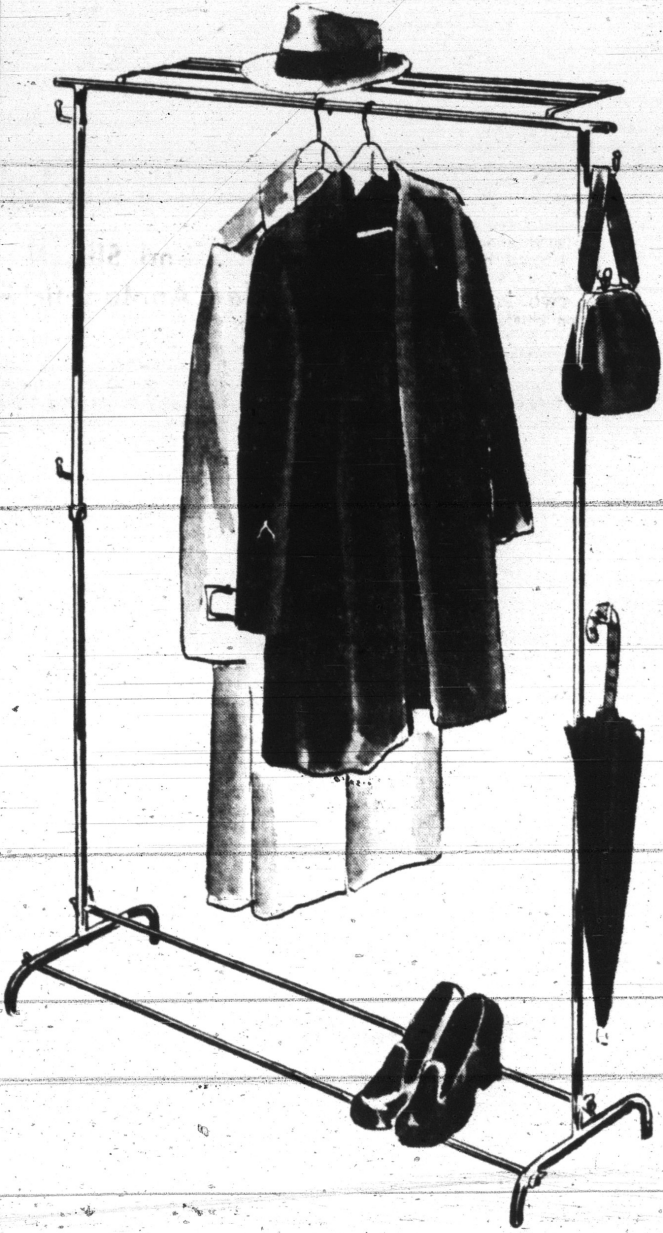
The Times Spelling Bee is being staged with the co-operation of the City Park and Recreation Department.

The Indianapolis champion, who could be a student of a

Ship Movements New York Arrivals—Port Amherst, St. Thomas, Santa Sofia, Barranquilla.

New York Departures—Costa Rican, Gibraltair, Exochorda, Marselles, Savannah, Bergen, Suez, Travler, Alexandria, Andros, F. Luckenbach, Cristobal, Rio Bethlehem, Aruba, Mauritania, cruise: Mormacel, Para.

L. S. Ayres & Co. FRANKLIN 4411



Berkeley 7-Way Clothes Valet

6.95

An extra closet or guest rack for hats, parcels, shoes, etc.

Use in your office, store, entrance hall or to hang garment

bags for storage. Lifetime chrome-finished tubular steel.

64" high, 40" wide. Holds 20 to 40 garments. May be

disassembled and stored in a carton 17" wide, 40" long

and 2" deep. Come in, write or phone FRANKLIN 4411 for

yours today!

Ayres' Notions, Street Floor

NOWHERE... CAN YOU FIND PIANO VALUES BETTER THAN AT RIDDICKS!

SPINETS GRANDS STUDIO UPRIGHTS

Those Who Should Buy at This Sale—

If you have children. If you play yourself. If you have an old upright. If you are planning to get married. If you want a new piano at very little more than the price of a used one. If you want a piano in mahogany, walnut, ebony, plastic or blond finishes. If you want a bargain.

How Much Cash Down? Probably Nothing...

All you need at Riddick's is just a good credit standing. Terms can be cut to suit your individual income.

Come see the wonderful Piano values we have to offer. Compare... you'll find our prices low.

CLOSED MONDAYS SHOP TUESDAY THROUGH SATURDAY 9:00 to 5:25

RIDDICK PIANO COMPANY

1440 NORTH MERIDIAN ST.

FOR THOSE WHO ARE INTERESTED IN A USED PIANO...

SELECT FROM SEVERAL FAMOUS MAKES

Studio uprights, spinets in many different styles and finishes... see them Tuesday! Some as low as

1/2 Price

It's Fun for the Whole Family to

Paint Figurines the Novelglaze Way

It's easy, creative... come in and learn to glaze these pretty figurines and bookends with a colorful, china-like lustre.

Junior Kit, 1.95

Demonstration Kit, 6.95

School Kit, 3.95

Figurines, 25c up

Ayres' Art Needlework, Fifth Floor

