



June 195

THE SMITHSONIAN

# TORCH

**VANGUARD'S** 

THREE

STAGES

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CONTRIBUTIONS SHOULD BE RECEIVED BY THE LAST DAY OF THE MONTH.

#### THE SMITHSONIAN TORCH

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June 1958

Number 40

#### VANGUARD

On May 26 the Naval Research Laboratory transferred to the National Air Museum a full-sized exterior duplicate of the Vanguard rocket, which placed in orbit last March a 6.4-inch,  $3\frac{1}{4}$ -pound, aluminum satellite. A reproduction of the satellite is included with the rocket in an exhibit in the rotunda of the Arts and Industries Building.

Efforts to obtain these impressive and timely additions to the national collections were originated by the National Air Museum shortly after the historic March launching. The Naval Research Laboratory and the Martin Company of Baltimore, maker of the Vanguard, were most cooperative in answering this request, and after the recent Armed Forces display was closed at Andrews Air Force Base they arranged to transfer the Vanguard that had been displayed there.

This is the rocket that was on a "stand by" basis at Cape Carnaveral, Fla., when the first successful launching of the Navy's satellite was made. For display in the Museum some of the Vanguard's interior equipment has been removed, but the exterior channels through which the control cables pass are still attached, and a nonoperable reproduction of the burner extends from the bottom of the lower first stage unit.

As it stands in the Museum rotunda, the 72-foot Vanguard weighs 1,800 pounds, but on its launching pad ready for firing a rocket of this

type would weigh 11 tons. The fuel in the 44-foot first stage section consists of several thousand pounds of kerosene and liquid oxygen. That initial charge is burned out in about 22 minutes, then explosive bolts are fired to separate the first stage from the rest of the rocket. The second stage, 31 feet long, uses a propellant composed of unsymmetrical dimethyl hydrazine and white fuming nitric acid. These ignite spontaneously upon contact, and in about 2 minutes propel the remaining units from an altitude of some 35 miles to about 130 miles. The impetus of that thrust raises the assembly to about 300 miles. At this time auxiliary explosive charges start the assembly spinning to impart stability, and "retrorockets" are fired to separate the second and third stages. The charge in the third stage propels it to a velocity of 5 miles a second. By this time, the course has gradually curved to a path parallel to the earth's surface. With the fuel in the third stage exhausted, a powerful spring separates the satellite, which goes into orbit.

The Naval Research Laboratory installed the rocket in the Museum rotunda with the assistance of Smithsonian officials and service personnel. Erecting a rocket outdoors is readily accomplished with the aid of cranes, but in the Museum it was necessary to construct a pair of high scaffolds to use for raising the three stages so they could be joined together.

At the presentation ceremony, Secretary Carmichael said: "Now we are assembled to record another momentous advancement--beyond this world and into outer space, and we have an impressive example of the type of space vehicle which has accomplished that feat--the Vanguard, made by the Martin Company for the U. S. Navy which launched America's second satellite into successful orbit around the earth; and here is a reproduction of that satellite which has been continuously circling our globe ever since it was launched over two months ago, and will continue to orbit for years to come....

"As proud Americans we are grateful that our country has men and women who can do these marvelous things. I think it is particularly appropriate that we display this Vanguard rocket beside this statue, which is the original cast of the one adorning the dome of our Capitol. It is called 'Freedom.' Symbolically, the products of American genius stand ready to support and defend the Freedom of America."

Rear Adm. Rawson Bennett, chief of naval research, made the presentation for the Navy. He was accompanied by Rear Adm. C. C. Kirkpatrick, chief of information; Capt. P. H. Horn, director of Naval Research Laboratory; Mr. Martin Jansson, technical information officer of the Laboratory; Mr. Paul Walsh, deputy director for Project Vanguard; and Dr. Paul E. Klopsteg, acting director of the National Science Foundation. Officials of the Martin Company who worked with the Navy and Museum on this exhibit project included Mr. C. B. Allan, Mr. Donald Cox, and Mr. William F. Kaiser.

The Vanguard stands to the west of the statue of Freedom. The Museum plans to exhibit on the other side an example of the Army's Jupiter, which on January 31 placed America's first satellite in orbit.

Statistics pertaining to the three stages of the Vanguard as shown in the diagram on the cover of this issue are as follows for the lst, 2nd, and 3rd stages, respectively:

Length: 44, 31, and 5 feet.
(Dimensions are separated lengths, which telescope together in assembly, to an overall length of 72 feet.)
Diameter: 45, 32, and 18 inches.
Engine thrust: 27,000, 7,500 and 2,350 lbs.

Burning time: 146, 120, and 30 seconds.

Peak velocity: 3,700, 9,000, and 18,000 miles per hour.

The shading slanted to upper left represents fuel; the shading slanted to upper right, oxidizer; and the cross-hatch, helium.

## ANTIQUE DIRT

The ingenuity of our talented exhibits people is endless. One of the dirtiest textile machines to be renovated for the new Textile Hall was the early 19th century Scholfield wool-carding machine. Although in relatively good condition, this machine had retained more than the usual accumulation of dirt because of the lanolin in the wool that it had processed over the years. With considerable foresight, Chick McKeon saved the dark, sticky exterior coating that he removed during the cleaning process.

In building new models for the Textile Hall and in making a copy of the 300-year old Galileo telescope. Bob Sampson and Don Holst used the dirt from the Scholfield machine to age the new wood. They discovered that one application of the Scholfield dirt aged the wood 150 years. To achieve this same amount of aging previously required 400 applications of tea. The antique dirt was such a terrific time-saver that it was decided the remaining dirt should be preserved for future use. The Scholfield dirt was put in a gallon can and placed on the supply shelf. Don Holst thoughtfully labeled it "Antique Dirt."

#### RECEIVES HONORARY DEGREE

Mrs. Agnes Chase, research associate in the department of botany who celebrated her 89th birthday this spring, received an honorary doctorate degree at the University of Illinois commencement exercises on June 14. She left a few days early to work in the herbarium of the University on her beloved grasses.

Though Mrs. Chase "retired" way back in 1938, she has worked continuously, often six days a week, in our herbarium, and is internationally known for her outstanding contribution to botany. Among her many botanic "grandchildren" are Chinese, German, Spanish, and American students whom she has helped in their work. All her colleagues, who hold her in high esteem, rejoice in the recognition that is being given her.

Mrs. Chase, who was born in Iroquois County, Ill., started as a botanical illustrator with the Field Museum in Chicago in 1901. She joined the U. S. Department of Agriculture in 1903. She was made research associate of the Smithsonian in 1947.

The University describes her as "One of the world's two leading students of the Gramineae, the large and complex family of grasses," and says that she is considered "one of the two most noted women botanists in the nation, and is among the top 15 or 20 of all American botanists."

The Botanical Society of America awarded Mrs. Chase one of 50 certificates of merit issued at its golden jubilee banquet in 1956. The citation said she was "One of the world's outstanding agrostologists and preeminent among American students in this field."

One of her important contributions has been her revision of the "Manual of the Grasses of the United States," originally prepared by A. S. Hitchcock. Another outstanding accomplishment is an index and bibliography of grasses that contains more than 80,000 references, a work she has just completed.

## AWARDS TO EMPLOYEES

In ceremonies in the Regents' Room on June 5, Secretary Carmichael presented awards to Mrs. Annemarie Pope, chief of the Smithsonian Traveling Exhibition Service, and to David Steinle and John Woodson of the publications section of the editorial and publications division.

In making the presentation of a certificate of award to Mrs. Pope, Secretary Carmichael said the award was based on her distinguished performance in arranging the exhibition of Swedish art that merited recognition by the government of Sweden. The Secretary thanked Mrs. Pope for her splendid achievements and congratulated her on the honor bestowed by the Swedish ambassador to the United States.

Mr. Steinle and Mr. Woodson each received a letter of commendation and a cash award for packaging and mailing 91,655 publications in a 6-month period, a number representing over 7,400 more than the normal workload. Secretary Carmichael said that this exacting task was done in record time without additional staff to assist in the project.

"Most folks are as happy as they make up their minds to be."

---Abraham

The Army's proud past was celebrated on June 14 (the 183d birthday of the Army) with the opening of the new Hall of Military History in the Arts and Industries Building. Designed to attract and instruct the more than two million persons who will visit it each year, the Hall traces chronologically the development and accomplishments of the Army from 17th Century Colonial Militia to the Pentomic Army with its family of modern missile weapons.

The peacetime activities of the Army and their influence on the growth of the Nation from the explorations of Lewis, Clark, and Pike to the present-day development of our natural resources by the Corps of Engineers are included.

A Smithsonian project, the planning and preparation of the Hall were carried out in close cooperation with the Department of the Army.

Employing modern exhibit techniques, the Smithsonian curators and exhibits specialists have told the Army's story comprehensively with a colorful selection of weapons and equipment, much of it unique. Dioramas, prepared by the U.S. Army Exhibit Unit, drawings, and explanatory labels give the Smithsonian visitor a grasp of the military aspect of the American heritage.

The first exhibit confronting the visitor on entering the hall is the sword carried by George Washington in battle throughout the Revolution and the uniform he wore when he resigned his commission in 1783. These two outstanding historic relics of our Nation's founding are flanked by the National colors and the United States Army flag.

From the George Washington relics, the visitor moves through the chronological story of the Army which is traced in a series of exhibits on the "Colonial Heritage" of the Army, "The War of the Revolution," "The Formative Years," "Expanding the Frontier," "The War with

Mexico," and other exhibits to "New Horizons," which includes models of the Army's modern family of missile weapons. In these exhibits are such rarities as Washington's military spyglass, DeKalb's war saddle, an original Von Steuben drill manual, Rochambeau's sword, and the uniform coat worn by General Jackson at the Battle of New Orleans.

In other exhibits are the trunk of a 22-inch oak tree completely cut down by rifle fire at the Battle of Spotsylvania and General Sheridan's war horse "Winchester" with original horse equipment. Exhibits treat military surgery, military transportation, heraldy and unit colors and decorations.

To mark the opening of the Hall, the 1st Battle Group, 3d Infantry (The Old Guard) staged a retreat review on The Mall facing the Smithsonian.

For approximately 10 minutes prior to the review, the 3d Infantry's crack Precision Drill Team performed on the Mall. The marching of the troops onto the field and Adjutant's Call were followed by Honors, consisting of a 19-gun salute, four ruffles and flourishes, and a playing of "The Army Goes Rolling Along" by the U. S. Army Band under the direction of Warrant Officer Fred C. Rose.

These honors were rendered for the Hon. Wilber M. Brucker, Secretary of the Army, and Secretary Carmichael, who were in the reviewing stand. Also invited was Chief Justice Earl Warren, in his capacity of Chancellor of the Board of Regents of the Smithsonian.

The military ceremony concluded with the troops of the 3d Infantry passing in review, under the command of Col. Mark E. Brennan, the unit's commanding officer.

The 3d Infantry, stationed at Ft. Myer, Va., claims the distinction of being the Army's oldest infantry unit. Figuring prominently in the ceremonial reception of visiting dignitaries at Washington National

Airport, it acts as traditional Honor Guard for the President of the United States and served recently as the U. S. Army contingent in the ceremonial Interment of the Unknowns of World War II and Korea at Arlington National Cemetery. It is from the 3d Infantry's Honor Guard Company that sentries are selected for the 24-hour vigil at the Tomb of The Unknowns.

### SATELLITE DATA PUBLISHED

The first published collection of optical observations of Satellites 1957 Alpha and 1957 Beta, covering the entire lifetime of the first two artificial earth satellites, has just been released by the Smithsonian Institution.

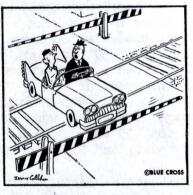
As part of their activities in connection with International Geophysical Year, scientists of the Smithsonian Astrophysical Observatory at Cambridge, Mass., have compiled the observations reported by Moonwatch teams and observatories all over the world, including the information as released from day to day by the U. S. S. R.

Also included in the collection of 12 reports are preliminary analyses of data from which the Smithsonian scientists have obtained new values of the density of the upper atmosphere, additional information about the shape of the earth, and a more precise knowledge of how atmospheric "drag" affects the motions of satellites in their orbits.

Of interest to the laymen as well as the scientist, the publication (Smithsonian Contributions to Astrophysics, Vol. 2, No. 10) gives an explanation of the notation system devised to distinguish the various

satellites and their component parts, a glossary of astronomical terms and symbols used in connection with satellites, and a chart for finding a satellite's distance and elevation.

The information contained in this publication can now form the basis for further analyses by researchers everywhere that will produce new knowledge about our world and the space around it.



" - - - and our Blue Cross, have you kept that up?"

# JUNIOR LEAGUE DOCENTS

On April 30 the Smithsonian Institution Junior League docents completed their third and most successful year of guiding almost 9,000 young people through four of our modernized exhibition halls--"Everyday Life in Early America," "American Indians," "Power," and "First Ladies." The elementary school children and special groups came from Arlington, Alexandria, Falls Church, District of Columbia, and Montgomery and Prince Georges Counties.

As Secretary Carmichael indicated to the chairman, Mrs. Peter Macdonald, "You can never know how much this wonderful volunteer service means to all of us here. Until you took over the work we had only

been able to hope that sometime we might be able to do a real teaching job in at least some of our exhibition halls, and now you have made this a reality."

This year every effort was made, especially by Mrs. Macdonald and Mrs. Wyeth, the co-chairman, to determine to what extent the newly modernized exhibition halls could contribute to the educational curricula of the schools within the Metropolitan Area. Thus, we found that out of the 320 tours conducted 131 were in the Hall of Everyday Life in Early America, 100 in the Hall of American is on exhibition with its mother at Indians, 80 in the Power Hall, and 9 in the First Ladies Hall, making a total of 8,790 persons conducted on these tours between Oct. 15, 1957, and Apr. 30, 1958.

This represents an increase of about 6,000 over the previous year. Those county school systems who took the greatest advantage of this educational service were Arlington, 55 tours; Montgomery County, 43 tours; and District of Columbia 38 tours.

The Smithsonian Institution pays tribute to these ladies who, on a volunteer basis, have taken advantage of our scientific knowledge and exhibition efforts to add to the general knowledge of the elementary school children in this area. The credit is due to the following members of the Smithsonian Junior League Docent Service, in addition to the chairman and co-chairman mentioned above: Mrs. George A. Armstrong, Mrs. John K. Barry, Miss Eleanor Bishop, Mrs. G. Edwin Brown, Jr., Miss Joan Burke, Mrs. Paul Campbell, Mrs. Dean Cowie, Mrs. Charles Donnelly, Mrs. Walter Edwards, Mrs. C. Clarke Gearhart, Mrs. Walter A. Graves, Mrs. H. F. Gregory, Mrs. R. David Herdman, snake (Maticora bivirgata), which is Mrs. Edward M. Lamont, Mrs. John A. Manfuso, Jr., Mrs. William McClure, Mrs. Robert L. McCormick, Mrs. William E. Minshall, Jr., Mrs. John Schoenfeld. Mrs. W. D. Sloan, Jr., Mrs. Walter Slowinski, Mrs. E. Tillman Stirling and Mrs. Richard F. Wallis.

NEW ARRIVALS AT PARK

A baby anoa was born at the National Zoological Park on May 4. This diminutive buffalo from the Philippines is the third offspring of the pair that came to the Park some years ago from the San Diego Zoo. The first baby did not live to maturity, and the second went to the Cincinnati Zoo. The latest arrival, looking like something out of a Walt Disney picture. the Antelope House.

Other newborns at the Zoo are three puma cubs, which may be seen in the outdoor stone cat house near the Zoo restaurant. One of them is darker in color than the others, and is a throwback to his grandfather, a Patagonian puma collected by Malcolm Davis in 1939.

The outstanding acquisition of the month is a linsang received April 16 from Lt. Col. Traub, U. S. Army Medical Research Unit, Kuala Lumpur, Malaya. This beautiful animal, also known as a tiger-civet, has a striped tail a foot long, which is several inches longer than head and body measurements. It is brownish in color, with spotted hindquarters. The Berlin Zoo at one time had a specimen in its collection but, as far as known, this is the only one in captivity today. It may be seen in the Small Mammal House.

Col. Traub also sent a remarkable collection of Malayan reptiles, including several never before seen in zoological collections, such as the Malayan coral dark blue with a red tail and belly; and a brilliant grass-green tree snake. Dryophis prasinus.

#### NEW APPOINTMENTS

Consultants:

Carroll B. Lusk (Office of Director, MHT)

Arthur Woodward (Civil History)

Research Technician:

George G. Noftle, Jr. (APO)

Exhibits Technician:

Thomas L. Nelson, Jr. (Office of Exhibits)

Exhibits Workers:

Albert W. Hennrikus (Office of Exhibits)

Dolores E. Lofgren (Office of Exhibits)

Archeologist:

Bernard Golden (RBS)

Biological Aid:

Charles F. Bennett, Jr. (CZBA)

Museum Aid:

Rudolph G. Morris (Graphic Arts)

Librarian:

Carole A. Bennett (CZBA)

General Supply Clerk:

Robert P. Perkins (Supply)

Personnel and Travel Clerk:

Carol S. Kurtz (APO)

Clerk:

David R. Hershenson (APO)

Secretary:

Fanny L. Foshag (APO)

Clerk-Stenographers:

Mary E. Wright (Medical Sciences)

Cyril F. Speizman (Supply)

Susan P. Shenkman (Freer)

Eleanor A. Palmer (Freer)

Clerk-Typists:

Yvonne M. Vantiger (RBS)

Sara J. Feves (Office of Di-

rector, USNM)

Florence H. Martin (Personnel)

Elevator Operators:

Rosa M. Garner (BMS)

Thelma V. Johnson (BMS)

Carpenter:

Robert L. Hise (BMS)

Casper L. Saunders Rudolph C. Dale

Robert Rupert James Daniel

Laborers:

Henry Adams Margaret W. Dames Francenia C. Bell John A. Scott

SEPARATIONS

Coles Taylor Emmett A. Holton Lawrence K. Tolley Leslie V. Stevens Henry W. Brown Elizabeth W. Gates Lyle S. Lackey Lynette A. Peters Clarence O. Cook Lily S. Shigezawa Joseph J. Love Setsuko Nakashima Marilyn D. Hansen Joyce L. Jayson Carl E. Brooks Jeanne F. Sylligardos Jean F. Fairman

FATHERS' DAYS

March 7: Dr. James F. Wright, veterinarian at the National Zoological Park, became the father of Melissa Frances, 6 pounds 8 ounces, born on March 7.

April 20: Bert J. Barker, senior animal keeper for small mammals at the Zoo, became the father of Janet Marie, 8 pounds 7 ounces.

Blessed is the man who, having nothing to say, abstains from giving wordy evidence of the fact.

---George Eliot

#### CREDIT UNION NOTES

The board of directors of the Smithsonian Credit Union has frequently recommended that all accounts, where possible, be issued in the joint names of the member and his intended beneficiary. This arrangement simplifies the payment of money in the account to the proper person in case of the death of the member. A "joint" account is, of course, subject to withdrawal by either person named in the agreement.

The subject that provoked the most discussion at our annual meeting was the various insurance features provided by our Credit Union. A brief summary of our insurance coverage is given below:

Savings: The age of the member at the effective date of the contract (Feb. 20, 1950) determines the original amount of insurance on the savings. Insurance on subsequent savings is determined by the then attained age. To the limit (\$1,000) the insurance covers everything saved prior to age 55; it covers 75% of additional savings between 55 and 59 inclusive: 50% of what is saved between 60 and 64; and 25% of what is saved between 65 and 69, inclusive; and it does not cover any additional savings in the credit union after attaining age 70. Insurance covers only savings in the Credit Union at time of death.

You do not lose part of your insurance when you reach age 55. If you deposit \$500 by age 54, for example, your family gets \$500 insurance even if you die at 100. The scale mentioned above applies to any later deposits. On joint accounts the name appearing first on the Credit Union records is the person insured. When you retire you can keep your insurance if you leave your money in the Credit Union.

Loans: If a borrower dies or becomes totally and permanently disabled the unpaid balance of his loan is paid in full, except: (1) insurance stops

when a borrower reaches age 70, and (2) total disability coverage ceases at age 60.

The above insurance features are without charge to the individual, the cost being paid by the Credit Union out of its earnings.

SAVE A LIFE

Blood donors are needed desperately. In order to provide for heavy July Fourth accident demands and to maintain a reserve for summer blood requirements, it is necessary to ask your continued support of the blood program conducted by the Red Cross.

To remain eligible for Red Cross blood services, the employees of the Smithsonian Institution are urged to contribute toward the maintenance of the blood bank.

Transportation for donors is provided on the last Friday morning of each month. Please call the personnel division, extension 385 or 449, to make an appointment.

A conference is a meeting of a group of persons who individually can do nothing, but who, as a group, can meet and decide that nothing can be done.

# PAY-ROLL SAVINGS BOND DRIVE

Reports from the team captains indicate that the campaign to increase pay roll savings through purchase of savings bonds was very successful.

Do you plan to save a little out of your new pay increase? A good way and a sure way to save is by purchasing bonds on the pay roll savings plan. Perhaps when you were interviewed recently you hoped to be able to sign up at a later date. How about NOW, with the provision that the authorization becomes effective on the first pay period which reflects the raise? It is easier to save if you begin before you get accustomed to the larger income.

APO NEWS

The following paragraphs are taken from a newsletter to "Wives of Satellite Tracking Observers" written by Elsa Campbell, wife of Leon Campbell, Jr.

"Dr. John Rinehart, Assistant Director of the APO, leaves August 1 to become full professor and head of the physics laboratory at the Colorado School of Mines in Golden, near Denver. We congratulate Dr. Rinehart and wish him the best of everything, but we are going to miss all of the Rineharts so very much! They gave a large and very delightful cocktail party May 16 at their home.

"On his return from Sweden Dr. Rinehart showed a clipping from a Stockholm newspaper which describes vividly the death throes of Sputnik II. The Swedes have some very clever words for the observation of satel-

lites but of more interest to all of us is the claim that the man whose picture appeared in the article had thought of a different method of Moonwatching! He has built something that looks like a rat cage—in the shape of a globe. The wires represent altitude and azimuth references so that when he looks at the sky from the center of the cage he can trace the path of the satellite by putting a clothes pin at each point where the satellite's path crosses the wires."

## RIVER BASIN NEWS

Dr. Frank H. H. Roberts, director of the River Basin Surveys, arrived in Lincoln on April 29. The following day, Dr. Roberts, Dr. Robert L. Stephenson. chief of the Missouri Basin Project, and members of the professional staff. including William N. Irving. Lee G. Madison, Robert W. Neuman, Charles H. McNutt, and Richard P. Wheeler, drove to Norman, Okla., where they attended the meetings of the Society for American Archaeology. En route back to Lincoln. part of the group visited the excavations of Dr. Warren W. Caldwell and his party at the Dardanelle Reservoir in Arkansas, as well as the Department of Anthropology at the University of Arkansas in Fayetteville. They arrived back in Lincoln on May 7. Dr. Roberts spent the following two days in the Lincoln office, conferring with Dr. Stephenson on administrative matters. and returned to Washington on May 9.

A visitor to the Lincoln office during the month past was Mr. G. Hubert Smith, our historic sites archeologist, who is on temporary loan to National Park Service to conduct archeological investigations at Fort McHenry National Monument in Baltimore. Dr. Warren W. Caldwell and his party broke camp in Arkansas and returned to Lincoln on May 7.

Mrs. Kathryn Clisby of Oberlin College was a visitor in the Lincoln office on May 9. Mrs. Clisby will do pollen analysis in connection with the Chronology Program, and specifically the Medicine Crow Site. She accompanied Mr. William Irving to the site on May 11. Mr. Irving and Mrs. Clisby also attended the meetings of the "Friends of the Pleistocene" which were held in Grand Forks, N. Dak., that week.

Mr. Khin Maung Zaw of Burma spent the greater part of the week of May 12 in the Lincoln office with Mr. Herman Harpster, our photographer. Mr. Zaw is an anthropologist and photographer, and the purpose of his visit was to learn more about the photography of artifacts and other scientific specimens, including the use of equipment and supplies which Mr. Harpster uses in that work.

On May 19, Mrs. Yvonne Vantiger joined the staff as clerk-typist, and Mr. Bernard Golden joined the staff as one of our temporary party chiefs this summer. Mr. Golden's party will camp with that of Dr. Warren Caldwell.

The field party of Mr. Robert W. Neuman has already taken the field. Mr. Neuman left Lincoln on May 19 to set up his camp in the same general area where he spent the 1957 season--near Fort Thompson, S. Dak. He was accompanied to the field by Clyde Parsons, cook, and Jerry Coleman, cook's assistant. His crew, which for the time being is made up mostly of residents of the Fort Thompson area, joined him there.

Also on May 19, Lawrence L. Tomsyck and Lee G. Madison drove to Pierre, S. Dak., where they spent two days removing field equipment and supplies from storage preparatory to sorting it out by camps.

The following poem, entitled "The Smithsonian Laborer's Lament was composed by Lee Azure, an Indian shovelhand on Mr. Robert Neuman's crew of Missouri Basin archeologists. It is sung to the

tune of the Marine Hymn.

On the banks of the Muddy Missouri, In the silt and in the sand, We are always digging in the ground, The S. I.'s shovel hand. First we dig for just the exercise, Then we dig to find and see What the Indians have made and used Before the White man crossed the sea.

When we're digging in the blazing sun, We uncover things, you see, Such as arrowpoints and scrapers, Bison bones and pottery. Then we dig in what is called a grid; It is made of pins and strings. It's the easiest way of keeping track Of just where we find these things.

We keep our profile straight and clean So Mr. Neuman can look and see The depth of the culture zone Where the Indian had his teepee. If you want to come and see our site, You are welcome when you can. You will find us always wringing wet, The S. I.'s shovel hand.

#### RECENT PUBLICATIONS

Following are the publications issued in April and May:

Smithsonian Miscellaneous Collections: "The Anatomy of the Labrador Duck, Camptorhynchus labradorius (Gmelin)," by Philip S. Humphrey and Robert S. Butsch; 23 pages.

"Periodicities in Ionospheric Data" by C. G. Abbot; 5 pages.

Smithsonian Contributions to
Astrophysics: "Orbital Data and Preliminary Analyses of Satellites 1957
Alpha and 1957 Beta," a group of
papers by various authors; 165 pages.

Proceedings of the U.S. National Museum: "North American Copepods of the Family Notodelphyidae," by Paul L. Illg; 187 pages.

"Pycnaspis splendens, New Genus, New Species, a New Ostracoderm from the Upper Ordovician of North America," by Tor Ørvig; 23 pages.

"Branchinecta cornigera, a New Species of Anostracan Phyllopod from the State of Washington," by James E. Lynch, 13 pages.

"Type Specimens of Lice (Order Anoplura) in the United States National Museum," by Phyllis T. Johnson; ll pages.

"A New North American Bird-Flea," by F. G. A. M. Smit; 7 pages.

Special Publications: "Adventures in Science at the Smithsonian," by E. John Long and George Weiner; 23 pages.

JOE BLOWE SAYS . . .

-Some folks are so busy learning the tricks of the trade they don't have time for the trade.

-Too many folks approach their problems with an open mouth.

-Did you ever notice the fast promisers are the slow deliverers?

-Too many people wait for opportunity to knock the door in.

-I wonder what the coming generation will substitute for being born on a farm and working their way through college?

-It sure is nice to live in a country where you can say what you think without thinking.