Mabie, referring to German scientists, quote some one as having said: In no nation have the scientific men dived deeper in the sea of knowledge, nor staid down longer, nor come up muddier. By all means let us dive deep, and explore widely; but for the sake of ourselves, as well as of our science, let us see to it that our advanced and graduate courses do not produce men who come up muddy. C. STUART GAGER

SCIENTIFIC EVENTS

MINING IN ALASKA IN 1917

THE annual report on the mineral resources and mineral production of Alaska in 1917 is now in preparation under the direction of G. C. Martin, of the Geological Survey, Department of the Interior. Some of the important features of this report relating to mining development during the year are abstracted in the following statement. Complete statistics of the mineral production of Alaska can not be collected within less than three or four months after the close of the year, but meanwhile it is desirable to publish the preliminary estimates here given, which are believed to vary not over 5 per cent. from the actual figures.

The value of the mineral production of Alaska in 1917 is estimated at $41,760,000, exceeding that of any previous year except 1916, which was $48,632,000. The decrease in 1917 was therefore about $6,870,000. During 33 years of mining Alaska has produced over $391,000,000 worth of gold, silver, copper, and other minerals.

Alaska mines are believed to have produced gold to the value of about $15,450,000 in 1917, compared with $17,240,000 in 1916. The total value of the gold mined in the Territory is now about $293,500,000, of which $207,000,000 has been won from placers. In 1917 about 88,200,000 pounds of copper was produced in Alaska, valued at about $24,000,000. The production in 1916 was 119,600,000 pounds, valued at $29,480,000. The total copper produced to date is 427,700,000 pounds, valued at $88,400,000.

The value of Alaska's lesser mineral products in 1917 was about as follows: Silver, $1,050,000; coal, $300,000; tin, $160,000; lead, $160,000; antimony, $40,000; tungsten, chromium, petroleum, marble, gypsum, graphite, platinum, etc. $600,000. The year 1917 marks the first production of chromium in Alaska, and about 81 ounces of platinum was saved in placer gold mining at several widely separated localities.

The data in hand indicate that the value of the placer gold output in 1917 was $9,850,000; in 1916 it was $11,140,000. The decrease was due chiefly to restriction of operations because of the high cost of supplies and the scarcity of labor. The placer output was increased only in the Tolovana, Marshall, and Ruby districts and at the new Tolstoi camp.

About 33 gold-lode mines were operated in 1917, compared with 29 in 1916. The value of this lode-gold mined decreased from $5,912,000 in 1916 to about $5,250,000 in 1917. The decrease was due chiefly to the disaster at the Treadwell mine. Southeastern Alaska, especially in the Juneau district, is still the only center of large quartz-mining development in the territory. Next in importance is the Willow Creek lode district. Gold-lode mining on Prince William Sound, Kenai Peninsula, and in the Fairbanks district is at a standstill.

The copper production of Alaska in 1917 was about 88,200,000 pounds, valued at about $24,000,000. This is less than the production in 1916, which was 119,600,000 pounds, valued at $29,484,000, but is greater than the production of any other year. The reduction in output was due largely to labor troubles at the Kennecott-Bonanza mine. During the year 17 copper mines were operated, compared with 18 in 1916–18 in the Ketchikan district, 6 in the Prince William Sound district, and 3 in the Chitina district. The enormous output of the Kennecott-Bonanza mine, in the Chitina district in 1917 as in previous years, overshadowed that from all others.

MILITARY MEDICAL RESEARCH IN FRANCE UNDER THE RED CROSS WAR COUNCIL

THE American Red Cross reports that the War Council has appropriated $100,000 for

general military medical research work in France, including special methods of recognition and study of diseases among soldiers.

This action followed a report from the Red Cross Commission in France to national headquarters as follows:

> An extraordinary opportunity presents itself here for medical research work. We have serving with various American units some of the ablest doctors and surgeons in the United States. Many of these men are already conducting courses of investigation which, if carried to successful conclusions, will result in the discovery of treatments and methods of operation which will be of great use not only in this war, but possibly for years afterwards. To carry on their work they need certain special laboratory equipment, suitable buildings and animals for experimental purposes. At present equipment and personnel can not be obtained through ordinary government sources without delay, which makes this source of supply quite impracticable.

The foregoing recommendation, like all others of a medical nature from the commission in France, was submitted to an advisory medical board in France composed of leading American doctors working with our own forces in that country. They approved it.

This advisory board is headed by Dr. Joseph A. Blake, with whom are associated:

Colonel Ireland, of General Pershing's staff; Dr. Livingston Farrand, president of the University of Colorado; Dr. Alexander Lambert, professor of clinical medicine, Cornell Medical School; Dr. John M. Finney, professor of clinical surgery at the Johns Hopkins University; Drs. Richard P. Strong and W. B. Cannon, professors at Harvard University; Major George W. Crile, head of the Cleveland Base Hospital Unit; and Dr. Hugh H. Young, professor at Johns Hopkins University.

The committee in charge of this research work in France, headed by Dr. W. B. Cannon, professor of physiology at Harvard, includes:

Dr. Blake, Dr. Crile, Colonel Ireland, Dr. Alexander Lambert, Dr. Richard P. Strong, Dr. Kenneth Taylor, Dr. W. B. Cannon, professor of physiology at Harvard; Dr. Harvey Cushing, professor of surgery at Harvard; Dr. James A. Miller, professor of clinical medicine at Columbia; Dr. William Charles White, associate professor of medicine at Pittsburgh; and Dr. Homer F. Swift, professor of medicine at Cornell.

The question has been raised as to whether the appropriation for medical research was not outside the proper scope of Red Cross activity.

The answer is simple. The supreme aim of the Red Cross is to relieve human suffering growing out of war. The War Council was advised from the ablest professional sources available that an immediate appropriation for medical research would contribute toward that end. The War Council could not disregard such advice.

There are many unsolved medical questions of great importance in this war. Numerous problems relating to the treatment of wounds, the eradication of lice, fleas, and scabies, the treatment of trench nephritis, trench heart, war neurasthenia, exhaustion, lethal gases, shell concussion, wound infection, compound fracture, and a great variety of other diseases and injuries are still to be worked out. The solution of such problems will contribute not only toward the relief of suffering but toward more effective prosecution of the war. Scientific experience is conclusive that the most rapid possible approach to such solution is through medical research.

To safeguard expenditures under this appropriation it has been arranged that all applications for grants from it shall be made through the chief medical officer of the American Expeditionary Forces, Brigadier-General A. E. Bradley, and such recommendation is essential to consideration of such expenditure.

The following cablegram, signed by 41 medical officers on duty in France, was received by the American Red Cross:

> We believe the Red Cross has properly expended its funds because it is the duty of the Red Cross to care for sick and wounded American soldiers, and to use funds to prevent those soldiers from being infected with the various diseases met with in their peculiar Army life. There are several diseases, the exact nature of which is still undetermined, as they are new and peculiar to this war and must be studied now to aid our troops. We

stand on the principle that Red Cross funds should back such work rather than secure special funds for that purpose.

The medical department of the United States Army is in full accord with all the Red Cross is doing in this regard. It is cooperating and assisting in every way in research matters, and is counting upon our help in this regard. It has asked the Red Cross to help it study the many problems of preventive medicines and of medical and surgical diseases, against which the Army Medical Corps must struggle. The research committee assists the Red Cross in the management of its funds and its experiments, and controls the type and kind of experimentation. The research commitee, whose names you have, controls fully its research work, against which the antivivisectionists are protesting.

English medical authorities are vigorously cooperating with the Red Cross in research work. We feel that any one endeavoring to stop the Red Cross from assisting in its humanitarian and humane desire to prevent American soldiers from being diseased and protecting them by solving the peculiar new problems of disease with which the Army is confronted is in reality giving aid and comfort to the enemy. Research work so far undertaken includes studies on anesthesia, shell shock and trench fever, which last will be the main line of investigation this winter. We are also investigating trench nephritis and foot-wound infections, including gas gangrene and tetanus. The animals used are principally guinea-pigs, rabbits and white rats. If operations causing pain to animals are performed anesthesia is used. Actually very few animals have been used for this work.

SCIENTIFIC NOTES AND NEWS

DR. CHARLES DOOLITTLE WALCOTT, secretary of the Smithsonian Institution at Washington, has been elected corresponding member of the Paris Academy of Sciences in the section of geology in place of Sir Archibald Geikie, who has been elected foreign associate.

PROFESSOR ARTHUR N. TALBOT, of the University of Illinois, has been elected president of the American Society of Civil Engineers.

PROFESSOR WILLIAM TRELEASE, of the University of Illinois, who was chairman of the organization committee of the Botanical Society of America in 1893 and its first president in 1894, has been elected president for the year 1918.

CHANCELLOR SAMUEL AVERY, of the University of Nebraska, has been given leave of absence in order that he may go to Washington to accept the position of chemist with the National Council of Defence.

THE Norman medal of the American Society of Civil Engineers has been awarded to Benjamin F. Groat, hydraulic engineer of Pittsburgh, by the board of direction of the society. The medal is of gold and is awarded to a paper which shall be judged worthy of special commendation for its merit as a contribution to engineering science. The title of the paper for which the award was made is "Chemihydrometry and its application to the precise testing of hydroelectric generators." It appeared in the *Transactions* of the society for 1916. The name "Chemihydrometry" is one that was suggested by Mr. Groat in SCIENCE for June 11, 1915.

THE Royal Dublin Society has presented its Boyle medal to Professor J. A. McClelland, F.R.S., in recognition of his work in science, especially on ionization.

DR. HENRY JACKSON WATERS, for eight and a half years president of the Kansas State Agricultural College, resigned this position on December 31, to become managing editor of the Kansas City *Weekly Star*. During his administration, the college has progressed notably in the fields of education and research and has gained materially in financial support. Dr. Waters leaves the institution to enter a field in which he believes that there is a large opportunity for service to agriculture and one in which, at present, his talents can be used more effectively. Pending the election of a new president, Dean J. T. Willard, of the division of general science, will be acting president at the college.

CAPTAIN ANTON J. CARLSON, Sanitary Corps, National Army, now at the Army Medical School, Washington, D. C., has been directed to proceed to Ottawa, Canada, for the purpose of conferring with the surgeon general of the Canadian forces concerning the nutrition of