come to light, the largest of which, weighing 4.61 kilograms, is at present in the National Museum. A broken surface shows the stone to be indistinctly chondritic, of a very light gray color, and under the microscope is found to consist essentially of olivine and enstatite, with a very small amount of plagioclase feldspar. It evidently belongs to Brezina's group of veined chondrites (Cwa), and will be known as the Scott County meteorite.

For the above information the writer is indebted to Mr. J. K. Freed, of Scott City, Kansas. This fall adds one more (the twelfth) to the remarkable list for which Kansas is becoming noted.

George P. Merrill.

THE WALTER REED MEMORIAL FUND.

To the Editor of Science: It is gratifying to note, that the executive committee of the Walter Reed Memorial Association, under the able leadership of Dr. Daniel C. Gilman, is making a final effort to raise a fund of $25,000, the income to be paid to the widow of Dr. Reed and the principal to be reserved for a permanent memorial in the city of Washington.

It may not be amiss to recall the fact that Dr. Reed's greatest achievement for science and humanity was his contribution to the cause, spread and prevention of yellow fever. The experiments which he planned and conducted in Cuba in 1901, demonstrated conclusively the causal relation of the mosquito species *Stegomyia fasciata* to yellow fever, and have given man control over that fearful scourge. The practical value of this brilliant demonstration has been proved by the complete eradication of yellow fever epidemics in Havana, New Orleans, the Gulf states, the Isthmus of Panama and wherever his teachings have been subjected to a crucial test. Competent critics are agreed that his work is the most valuable contribution to medicine and public hygiene which has ever been made in this hemisphere. The results to humanity are incalculable and as well expressed by General Wood, the military governor of Cuba:

> Hereafter it will never be possible for yellow fever to gain such headway that quarantine will exist from the mouth of the Potomac to the mouth of the Rio Grande. * * * His discovery results in the saving of more lives annually than were lost in the Cuban War and saves the commercial interests of the world a greater financial loss each year than the cost of the Cuban War.

The full significance of this statement will be apparent when we recall the fact that, according to competent authorities, yellow fever in the United States alone, from 1793–1900, prostrated not less than 500,000 persons and carried off over 100,000 victims. According to Dr. Horlbeck, of Charleston, S. C., the great epidemic of 1878 in the states of Louisiana, Mississippi and Alabama resulted in the loss of nearly 16,000 lives, and the estimated total loss to the country resulting from this epidemic was not less than $100,000,000; indeed the actual cost of the epidemic of that year to the material resources of the city of New Orleans has been estimated by Dr. Samuel Chopin at $10,752,000.

In view of the great economic importance of Dr. Reed's discovery it is somewhat surprising to learn that by far the largest number of contributors are of the medical profession, and that so far the executive committee has failed to enlist the sympathy and support of the commercial interests, especially in the Gulf states, which will be most benefited by Dr. Reed's great work. While the medical profession has erected monuments to Benjamin Rush and Samuel D. Gross, who rendered distinguished services to American medicine and surgery, it must be conceded that Dr. Reed's beneficent work deserves a broader recognition and men of science should not be expected to sustain this laudable undertaking without material aid from other sources. Dr. Reed was a native of Virginia, and it seems peculiarly fitting that his work, which affects the lives, happiness and material interests of the people of the south Atlantic states, should be appreciated by popular subscriptions. There should be no difficulty in raising the modest sum of $25,000, and the writer expresses the hope that men of science will bring the merits of the case to the attention of their friends able and willing to contribute to this noble cause. Mr. C. J. Bell,

president of the American Security and Trust Company, Washington, D. C., is the treasurer and General Calvin De Witt, 1707 21st Street, Washington, will gladly supply literature.

G. M. K.

GEORGETOWN UNIVERSITY,
February 15, 1906.

SPECIAL ARTICLES.

RESULTS OF A REPLANTATION OF THE THIGH.[1]

IT has previously been shown that a satisfactory circulation may be established in a replanted thigh.[2]

We wish here to record a summary of observations made on a similar experiment extending over a longer post-operative period.

The animal employed was a small white bitch. Through a longitudinal incision the vessels of the thigh were exposed and cut above the point of Scarpa's triangle. The skin was circularly severed and the thigh completely amputated above the junction of its lower and middle third. After a few minutes the limb was replanted. The ends of the bone, the muscles, the vessels and the sciatic nerve were united. The circulation was reestablished after having been interrupted for one and one quarter hours. The pulsations of the popliteal and 'saphenous' arteries were normal. The dark blood circulated very actively through the femoral and saphenous veins. Red blood flowed from the small arteries of the peripheral part of the cut limb. The skin was sutured and a plaster dressing applied to the limb and trunk.

After the operation the general and local conditions of the animal remained very satisfactory. It drank and ate normally and walked on its three sound limbs. The skin of the replanted foot remained normal, but its hue was redder and its temperature higher than that of the normal foot. The anterior part of the foot soon became moderately swollen.

Seven days after the operation the dressing was partially removed. The limb presented neither œdema nor trophic troubles. The œdema of the anterior part of the foot was doubtlessly due to pressure by the lower edge of the bandage, as the swelling completely disappeared within a few hours after correcting the fault of the dressing. The skin was normal and the wound had united 'per primam intentionem' without evidence of inflammation. The temperature of the skin was higher below than above the line of suturing.

Eight days after the operation the foot appeared normal in size, all œdema having disappeared.

On the tenth day, during the afternoon, the temperature of the replanted foot became lower, *i. e.*, similar to that of the normal foot. The dressing was then removed. It was found that, owing to a slipping of the plaster bandage, some urine had got into the cotton dressing and caused infection of the upper part of the longitudinal incision. A small subcutaneous abscess had developed, along the vessels. The general conditions of the animal were excellent, and the nutrition of the limb satisfactory. As the arterial pulsations were much weakened and as it was considered important to accurately determine the cause of this change, the animal was etherized and the vessels examined through cutaneous incisions, after which the animal was killed.

This dissection 'in vivo' gave the following results: The point of the vascular anastomoses was surrounded by the small subcutaneous abscess. The venous anastomosis was good. The arterial anastomosis was partially occluded by a small clot. All the other portions of the vessels appeared perfectly normal. The circulation through the limb was yet satisfactory, as the obliteration of the anastomosis was not complete. The union of the skin, the muscles and the sciatic nerve was normal. The process of consolidation of the bone was beginning. It is probable, but not certain, that if the animal had been allowed to live, the arterial stenosis would have gradually increased and that in the end the circulation would have been interrupted. Then, no doubt, gangrene of the limb would have occurred, which result would have been due

[1] From the Hull Physiological Laboratory, University of Chicago.

[2] Carrel and Guthrie, 'Complete Amputation of the Thigh with Replantation,' *The American Journal of the Medical Sciences*, February, 1906.