

ter had earlier made penetrative studies of an outbreak of gangrene. He had assured himself that the cause was local in the wounds of the patients. The fact that ordinary bone fractures healed without fever, whereas fractures which broke the skin frequently caused death, was further material for his productive course of thought. Reading one of Pasteur's papers on "germs" as the cause of putrefaction resolved Lister's study into definite action. He experimented for himself, and concluded that the way to prevent festering was to keep away from wounds the germs which were in the air.

To do that Lister tried applying dressings soaked in carbolic acid, which had been used at Carlisle, in England, to allay the foul odors of sewage, and which he rightly concluded therefore destroyed germs. He was thus successful in saving compound-fractured limbs, which previously had customarily been amputated, and that with many fatal results. This satisfactory treatment led Lister to extend the application of carbolic acid to abscesses and surgical wounds, with the same vastly beneficent outcome. Soon hospitals which had been devotedly clean houses of death became modern, antiseptic infirmaries.

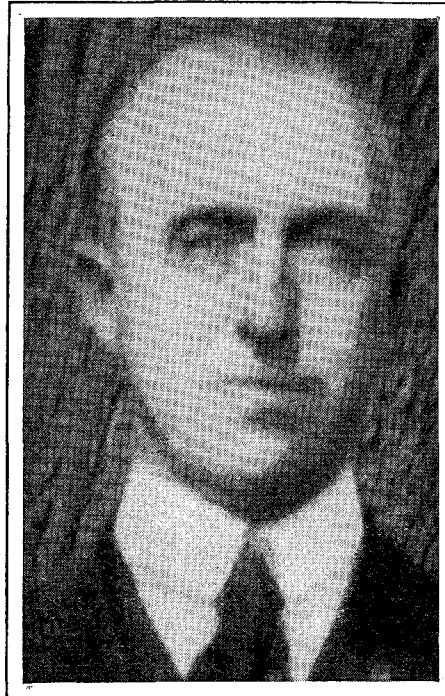
Joseph Lister, soon to be Sir Joseph Lister, extended his work to the study of means of closing wounds. The silk or flax then used in stitching often became a center of infection. Lister tried silk which had been soaked in carbolic acid. Festering ceased; but still he found that the thread remained in the body as a source of irritation. He saw the need of a sewing material which could be absorbed by the tissues of the body. Consequently he, first, used "cat-gut," which is prepared from one of the constituents of the small intestine of sheep.

So the unfettered scientific thinking of a young Quaker surgeon carried on the flame of knowledge, given him by Pasteur, to the liberation of surgery, to the alleviation of suffering, and to the preservation of life.

A Nation's Hero in Need

To people who amuse them or supply them with luxuries Americans give lavishly; but to people who have sacrificed much to save them from suffering, disaster, and that worst of evils, haunting, paralyzing fear, Americans are too often indifferent. They pay their entertainers well, but neglect their benefactors and heroes. That, at least, seems to be true in many cases, if not in all, and is particularly true in the case of those who risked death and worse to wipe out the scourge of yellow fever.

What a scourge that was most people have already forgotten. When it visited a city terror ruled. In 1793 an epidemic in Philadelphia killed one out of every ten of the population. In 1855 a great epidemic swept through New Orleans. In the epidemic of 1878, 25,000 people fled from Memphis, Tennessee. During



The hero of one of the great campaigns of the last century. This is John R. Kissinger, the story of whose courage and suffering is told in the accompanying editorial

the nineteenth century yellow fever visited the United States seventy-seven times. In one instance, out of 1,500 soldiers yellow fever killed 1,411. It is impossible to imagine what this enemy of mankind did to sear the hearts and lives of Americans as long as it remained uncontrolled because mysterious. Those who can think best in terms of money may imagine what it cost the United States when the fact is stated that one epidemic alone is estimated to have cost \$100,000,000. The story of the conquest of this scourge is too long to tell here. It is one of the most dramatic stories in American history. But the part that one man played can be sketched.

In 1900 the theory that yellow fever was transmitted by a certain kind of mosquito was unsupported by scientific evidence. Two doctors voluntarily submitted to the bites of infected mosquitoes. One survived, the other died. There was still lacking proof, however, that the mosquito was the sole culprit. So Major Walter Reed, of the United States Army Medical Corps, called for volunteers. Among the first was John R. Kissinger.

He and one other, when accepted, were offered money remuneration. They

refused it. Major Reed, addressing these two privates, said: "Gentlemen, I salute you." Later he wrote of them: "In my opinion, this exhibition of moral courage has never been surpassed in the annals of the Army of the United States."

John R. Kissinger was the first to be submitted to the test. He was stricken with yellow fever. His case proved the theory. He recovered; but since that day he has not been a thoroughly well man. To-day he is living in straitened circumstances. It is true, Congress in 1911 granted him one hundred dollars a month. Earlier he had received for a while a pension of twelve dollars a month, but afterwards (1922) that was taken from him and a demand was made upon him that the total amount of that pension paid to him from 1911 to 1922 be repaid to the Government. Congress, fortunately, saved the country from the disgrace of enforcing that demand.

There is a plan on foot to supply him and his faithful wife (who is about to undergo a serious operation) with a home. The sum of \$5,000 is needed for this, not only to save him from homelessness, but also to provide some other hero with a home later. For putting that plan into practical effect honor is due to a biology teacher, Mr. James E. Peabody. Checks sent to the John R. Kissinger Relief Fund, in care of the American Association for Medical Progress, Inc., 370 Seventh Avenue, New York City, will be acknowledged and applied to this purpose. A much larger sum, for the benefit of other martyrs to science and humanity, can be used to advantage. We hope our readers who can afford to pay some slight tribute to what this man has done for them and their country will be generous.

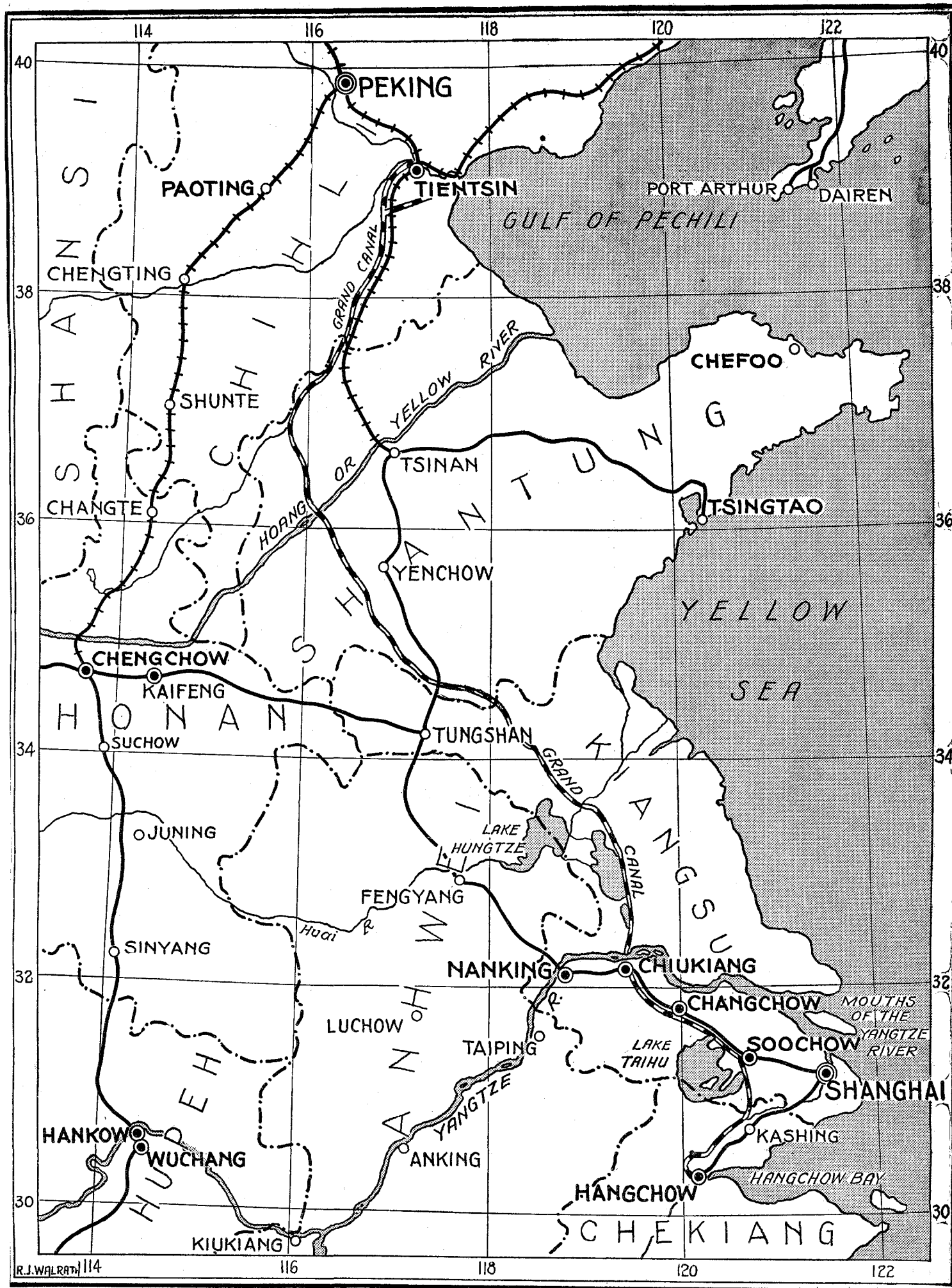
Wars and Rumors of Wars

I—Russia Wins in China

THE end of a period is being recorded in the civil war in China—the period of trade and missionary enterprise under agreements affording special privileges to foreigners.

The sweep northward of the Nationalists from Canton has proved to be more than a drive against the militarists of the North. It is also a concerted drive against alien residents in China—primarily against the British, but also against Americans, French, and most other Westerners, and against the Japanese. What the next period of relations with China will be like no one can say. But it seems certain that the old arrangements are gone beyond recall.

The immediate duty of our Govern-



A key to the news from China