

GEOGRAPHY

Far East Conflict Near Gateway City to Mongolia

CHINESE and Japanese soldiers who have been battling near the Great Wall of China may determine the fate of one of the important old trade routes of the East, and perhaps the Mongolian province of Chahar, to boot.

The flare-up, at vaguely defined borders of Mongolian and Manchukuoan territory, carried the Japanese toward Kalgan, gateway city between North China and Mongolia.

Kalgan stands at the Great Wall itself. Through it runs the outstanding caravan route from Peiping up into Mongolia. The route traveled by camels and motor cars winds north from Peiping, across the Nankow Pass and thence past Kalgan into Chahar and northward to Urga, capital of Outer Mongolia. Millions of dollars' worth of furs and hides are brought through the gateway city each year, from Mongolia destined for China. Kalgan has some 20 factories where some of the goat, horse, camel, sheep, and cow hides and skins are prepared. South-bound furladen camels pass on the road north-bound caravans carrying tea and other Chinese goods up to Mongolia.

The Capital

Kalgan is the capital of the Mongolian province of Chahar. Dispatches have stated that a wedge of this province has already been added by Japan to the growing state of Manchukuo. Jehol, which joins Chahar on the east, was a Mongolian province before being annexed to Manchukuo.

In a diplomatic "white book" of 1932, Japan included Mongolia with

Manchuria in discussing ways and means of providing food and raw materials for her over-populated Empire.

Said the "white book": "By making these two regions a source of supply for the necessaries of life, we shall be able to feel free from apprehension concerning our national existence."

Mongolia is more famed for its Gobi Desert and its unpromising stretches of country, occupied by nomads and herds, than for its farming possibilities. However, Inner Mongolia, where the war map now centers, contains good farm land and additional regions that can be irrigated.

Defense From Barbarians

Built to shut out barbarians who had a way of swooping down into China from the north, the Great Wall has gathered a long history of battles and bloodshed.

Old writings show that the Wall was built in an atmosphere of strife and gloom. Invasions of nomad tribes endangered China's civilization and her empire—so feared Shih Huang Ti, the first emperor of China, as he styled himself in the third century B.C. The emperor commanded sections of wall along the northern border to be welded into one towering thick serpent of a wall, winding up mountains, down valleys, over deserts and streams, from Turkestan to the Yellow Sea. The length, including some double sections, is about 1,500 miles.

Forced labor built the Great Wall. Two hundred thousand convicts with iron collars round their necks worked until they died in their tracks. Bodies of dead were tossed into the foundations, said a tradition, and the Wall came to be called Greatest Cemetery on Earth. China's early equivalent of Russian banishment to Siberia was to ship political prisoners and undesirables off north to sweat and strain in the wall-building crews. Even so, more workers were needed, and the emperor-builder drafted, so it is said, every third able-bodied man in his kingdom.

He died before it was finished, and later emperors made additions and repairs. The Wall became a barrier 15 to

25 feet thick, 15 to 30 feet high, made of stone, brick, and earth, and reinforced by thousands of towers. It was Western ignorance regarding the Far East that caused this Chinese engineering triumph to be omitted as an eighth wonder on the list of the famous Seven Wonders of the World.

The Great Wall, mighty as it looked, proved too weak a barrier at times to keep out foes. Genghis Khan and his Mongol army swept over the Wall and drove out the reigning emperor of China in the thirteenth century, and his grandson Kublai Khan founded a new dynasty of Chinese emperors. Manchus in 1644 forced the Wall, and inaugurated the Manchu dynasty. The very areas that the Great Wall was built to exclude became outer territories of the Empire in times of expansion, identified as Mongolia and Manchuria.

In the present conflict, when the tug-of-war over territory is more of an east-west struggle than north-south, the Great Wall is still something more than a symbol. It marks a southern boundary for the fighting, not likely to be passed. South of the Great Wall, China proper swarms with its congested millions and its own insistent food problems. North of the Wall is the land in which Japan is interested—the broad steppes of Mongolia, not very thickly inhabited and capable of growing food for many more people than they now support.

Science News Letter, February 9, 1935

ENTOMOLOGY

Destructive White Grubs Encouraged By Some Trees

WARNING that certain species of trees, most especially bur oak, planned for use in the Great Plains shelterbelt development, are encouragers of white grubs, a destructive soil pest, is issued by C. L. Fluke, Jr., and Paul O. Ritcher of the University of Wisconsin (*Science*, Jan. 18.)

White grubs are the larval stage of June beetles. These beetles in the adult stage have marked preferences for certain trees, and where these trees abound the white grubs are found most thickly infesting the soil, the Wisconsin entomologists have observed. They suggest therefore that in selecting trees for shelterbelt purposes, those species should be planted which are least likely to lead to a plague of the root-destroying grubs.

Science News Letter, February 9, 1935

RADIO

Tuesday, February 12, 4:30 p. m.
THE MARCH OF THE MICROBES, by
Homer N. Calver, Public Health Consultant,
New York City.

Tuesday, February 19, 4:30 p. m.
MENTAL HEALTH, HAPPINESS AND EFFICIENCY, by Dr. C. A. Bonner,
Superintendent, Danvers State Hospital,
Massachusetts.

In the Science Service series of radio addresses given by eminent scientists over the Columbia Broadcasting System.