## MODERN WAR IN ANCIENT CHINA

By T. F. HSU

The proud Westerner has reluctantly accepted as a fact that the Chinese knew the uses of the printing press, the compass, and explosives long before Europe discovered them. But here comes Mr. Hsu, whose hobby it is to write on things Chinese, to tell us that three thousand years ago the Chinese knew all about dive bombers, flame throwers, chemical and bacteriological weapons, and various other characteristics of modern uarfare. However he admits that they existed only in the Chinese imagination. In this, we might say the ancient Chinese were fortunate.—Our illustrations are taken from a popular edition of the novel described.—K.M.

When Chinese pick up their morning papers these days, they often pause to pinch themselves to see if they are not dreaming of a world depicted in a popular folk-tale known throughout China for many centuries; for, under big headlines, they find exciting word-pictures of the three-dimensional modern war which seem to have been taken from the pages of the old Chinese best-seller.

There is indeed an amazing resemblance between the technical achievements of modern military scientists and the imaginary contraptions of the inventive anonymous Chinese author.

The novel in question is Feng Sheng Pang (封神榜), which literally means "The Appointment of the Gods," and tells of a titanic struggle in the last days of the Shang Dynasty about three thousand years ago. In a way, this Chinese novel, generally believed to have been compiled in the Ming Dynasty from ancient legends, is like Homer's Iliad, with two groups of militant gods and goddesses taking sides with the earthly warriors in a sanguinary war that paved the way for the foundation of the Chow Dynasty. In the numerous battles between these two camps of immortal beings the most fantastic weapons are described. And some of these, the products of the lively imagination of an author of several centuries ago, have been brought to realization by ingenious modern inventors and thrown into the current warfare that has swept across Europe. One might even wonder whether these inventors and the students of modern military strategy may not have obtained some of their inspiration from our Chinese novel.

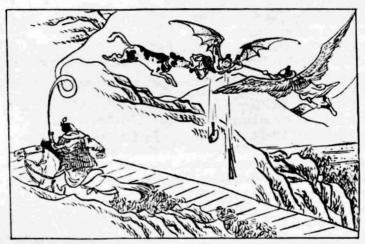
In its essence the plot of the novel is close to the facts recorded in history. It opens with a long and sometimes gruesome narrative telling of the cruelty and mis-government of the Emperor Shou (村) of the Shang (高) Dynasty, who is instigated to many of his misdeeds by his beautiful but venomous Imperial concubine. The events culminate in a revolution headed by the feudal Lord of Chow (周). In his Government is an aged Premier who happens to be the disciple of Yuen Sze Tien Tseng (元始天尊), head of one of three groups of immortals. This group of immortals is allied with another, headed by Tai Shang Lau (太上老君). Chung The group, comprising the warlike immortals who through prolonged worship rose to immortality from the ranks of lowly animals joins the side of the Emperor Shou.

Long before the revolutionary armies start their march for the capital of Shan, the Emperor Shou has ordered no less than sixteen punitive expeditions, each under the command of a disciple of the third group of immortals and each aided by one or more of the minor members of a superhuman These expeditions defeated, clique. the revolutionary armies begin their long march, facing one seemingly insurmountable obstacle after another. and finally succeed in surrounding the Shang capital. The Emperor Shou commits suicide after the disgraceful defeat, and the feudal Lord of Chow is installed as the ruler of a new dynasty which was to reign over China for some nine hundred years (1134-247 B.C.)

In the heat of these battles, the author introduces many superhuman using a brass club as a weapon of deadly effectiveness.

Joining his brother's army, he scores many victories by flying into the battle-field, circling over the enemies at a great height, diving down on a marked enemy warrior and putting the unfortunate one to death with his club. At one time he is assigned to fight a rearguard action, and he scares the daylight out of the pursuing army by zooming to a great altitude and crushing the peak of a mountain to bits by a single blow of his club.

In the opposing army there is a similar freak warrior. How he earned his



Lai Tseng Tse engages his winged enemy in a "dog-fight."
The dog has been released by the warrior on horse-back
to aid our hero by biting his opponent

characters, each the owner of a secret weapon. What may well be compared to military planes in modern warfare are two prominent figures. One is Lai Tseng Tse (含发子), a brother of the Lord of Chow. Born an ordinary mortal, he is said to have been adopted by an immortal, who fed him two ripe red apricots. While the boy was enjoying the fruits, he suddenly felt two flapping wings growing out of his armpits. His handsome features changed into those of a bird, with a conspicuous bill-like mouth and a hooked nose. He could now fly. His immortal teacher taught him military tactics and also the secret method of wings is not told: apparently the author had to produce a rival for Lai Tseng Tse in haste and neglected a biographical note. This warrior, however, could not fly with the same speed and at the same altitude as his counterpart. In a "dog fight" the two winged warriors engage in a terrific battle resulting in the death of the slower airman, just as in modern war an obsolete plane would be defeated if pitched against a 1941 model.

In fact, the two are not the only "airmen" in this mythological warfare. The "air force" of both armies is formidable. They are not winged superhuman beings but immortals and near-

immortals who, apart from their particular secret weapons, are capable of travel at a high speed on the clouds above or below the stratospheric zone.

In this way, each of them is a parachutist who may drop behind the enemy lines and engage in destructive activities. However, the author did not visualize the effectiveness of parachutists in the same way as modern chiefs of staffs do. He merely put them into use for making quiet raids into enemy encampments to release and retrieve the more important warriors taken prisoner by the enemy.

to death. Modern air-marshals would certainly wish to be the first to lay their hands on such "pebbles," in order to drop them on enemy production centers instead of raining high explosives and incendiary bombs. And that immortal fighter appears to have had an inexhaustible supply of such pebbles.

Most of the secret weapons described, however, are not designed for mass slaughter but for individual foes. Among these are: scissors which, when released, cut the enemy in two and return harmlessly into the owner's roomy sleeves; a flock of crows with steel bills



Lai Tseng Tse dive-bombs an enemy commander

Many battles are fought in the air. As these "cloud-riders" (騰雲駕幕) have a huge flying radius, a single air duel is often fought over thousands of miles with every foot of the distance featured by thrilling exchanges. Compared with modern "dog fights," these imaginary aerial combats are just as colorful and hair-raising. Instead of rapid-fire machine-guns and devastating cannons, these human fighting planes employ their secret weapons and even swords in their duels. Little emphasis placed their comparative on swordsmanship: the spotlight turned on their secret weapons. One of them often uses small pebbles "essence" the which actually are of huge mountains. The slightest contact with one such seemingly harmless pebble would instantly crush the victim

which are driven into the battle-field to gouge out the eyes of the enemy; and numerous swords which are thrown into the air to kill enemies miles away and which return boomerang-like to their owners.

Gas warfare, though mere child's play when compared with that of the last European war, is vividly described in the Chinese Iliad. As in the case of winged warriors, both the Government and revolutionary armies boast of a gas expert. They are not chemists, but gifted instead with a superhuman ability to force poisonous gas from their bodies, one through his nostrils and the other through his mouth.

Each of these warriors has a trained corps closely following him whenever he appears on the battle-ground. These soldiers are trained to tie up the fallen foes. In the heat of the duel, the warrior exhales the gas and puts his enemy painlessly to sleep to wake up twelve hours later in a prison camp! On one occasion, ironically enough, the two warriors meet in battle, and each is rendered unconscious by the other. Their trained followers rush up and retrieve their commanders. Neither the warriors nor their followers had gas-masks, but the latter did not need them since the gas was directed at one person at a time.

Even bacteriological warfare, so far not put to practical use in current wars, is not beyond the author's imagination. In fact, Chinese legends attribute to that mythological war two of the most deadly epidemics—small - pox and plague. It is said today that, just because these ancient warriors waged this grim bacteriological warfare, the world has now to use serums and other remedies to combat these diseases.

In one of the battles, while the two armies are deadlocked, a member of the wicked clique of immortals descends from nowhere to claim that he can wipe out the entire enemy force in the twinkling of an eye. All he has to do, he tells the down-hearted commander, is to fly over the enemy camps under cover of darkness and drop several bushels of colored beans. He assures the commander that within seven days the enemy force will be wiped out by a strange disease.

Accordingly that night he summons the clouds to convey himself and the bushels of colored beans. Taking off for the night raid without even consulting the weather reports, he is presently circling over the enemy position. He sprinkles the bushels of disease-carrying beans all over their camp; then quietly withdraws and returns to his base.

Next morning only a handful of soldiers in the Chow camp is able to get up. All the others find themselves suffering from an unknown ailment baffling even the army surgeons, who are themselves down with the same disease. In the entire force only one man is immune, and he is a disciple of one of the gods. He immediately flies away on the clouds to consult with his teacher, and is told to go and see the Emperor Sheng Nong (神衆), a prehistoric ruler who is reputed to be the inventor of Chinese herb-medicine. From this great Father of Chinese Medicine he learns that the unknown



Bacteriological experts scattering beans carrying small-pox over the enemy camp

ailment is small-pox and obtains from him a kind of herb, said to be the best cure.

Recovering immediately through this treatment, the Chow army surprises the enemy and scores a complete victory. However, small-pox prevailed in the world as one of the most deadly diseases until western scientists invented vaccination.

This is not the only bacteriological attack described. In another battle, soldiers of the Chow army are ad-

ministered a similar blow when another member of the devilish immortals showers them with "invisible substances" causing a plague. Before the army is reduced to a mere battalion, however, the Father of Chinese Medicine once again comes to the rescue. The plague is checked, but not exterminated, so that today it still breaks out occasionally.

It was in this battle that the idea of a flame-throwing machine, which caused a sensation in modern war, was first mentioned. To defeat the wicked immortal who staged the bacteriological attack, one of the righteous gods written some three hundred years ago and describing events of the Sung Dynasty (960-1279), a fleet of a thousand tanks and a lone submarine are mentioned in the punitive expedition launched by Government forces against the one hundred and eight bandits of Liangshan.

These "tanks" were, of course, neither steel-plated nor equipped with machine-guns or cannons. How they were propelled the author does not reveal. They are merely described as "wagons covered with leather and padded with hair" to resist the arrows and stones rained against their advance



A gas specialist breathing poisonously on an enemy and rendering him senseless

on the side of the Chow army sends a disciple down to earth, armed only with a fan. This fan, however, produces flames, and with it he fans the wicked immortal till he is reduced to ashes.

In The Appointment of the Gods, rich in its description of modern weapons in what may be called their embryo stages, there is a conspicuous absence of the tanks and submarines which figure so prominently in modern wars. What is missing from this tale, may be found in a sequel to the Chinese novel translated into English by Pearl Buck under the title of All Men Are Brothers. In this book,

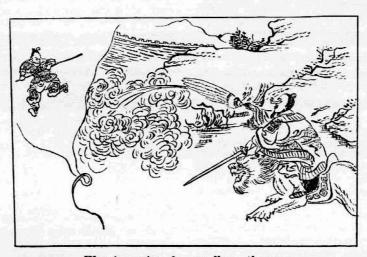
by the enemy. They were also said to be able to span trenches, and their only obstacles were forests and creeks. They were not called tanks, but "thundering wagons," alluding to the great noise made while rumbling over the battle-field. From slits in these padded vehicles several soldiers were kept busy firing off arrows with deadly accuracy and great speed.

These "thundering wagons" helped the bandits to win several overwhelming victories but met their doom when the adviser of the Government forces perfected what are today called "tank traps." In one single combat the entire fleet was trapped and destroyed! The description of the imaginary submarine is more vague. It is merely said to be an ordinary boat covered with boards and sealed with indigo. How it was operated is not mentioned. However, it was successfully used to smuggle troops under water to a strategic spot behind the enemy lines.

Modern weapons, though already much more fantastic and formidable than those of previous decades, are still far behind the imaginary equipment of the mythological warriors of *The Appointment of the Gods*. Resourceful as they are today, modern inventors have so far failed to equal such imagi-

Above all, if modern wars were fought along the lines of that mythological conflict, campaigns could be launched and pressed forward at much lower cost. Unlike bombs, torpedoes, and shells which, once fired, are spent, most of the secret weapons described in *The Appointment of the Gods* are boomerang-like, returning to their respective owners after having made the "kill."

The imaginary flame-thrower, for instance, requires no detailed planning regarding the supply of fuel or the training of special crews in asbestos



Warrior using fan as flame-thrower

nary weapons as a four-stringed lute which, when played on the battlefield, will produce a "pea-soup" fog through which only the player and his followers, specially treated with a secret eyedrop, can discern the position of the enemy. The enemy warriors are practically blinded and often caught unawares when the deadly swords or spears pierce their bodies.

Or, how useful would be a yellow flag which produces invisible rays that will ward off practically all kinds of weapons when unfurled over the bearer. This flag belongs to the commander-inchief of the Chow army, who is therefore immune from the dangers confronting other combatants.

suits to handle the elaborate equipment. The weapon that emits the devastating fire with ease in our mythological war is nothing but a fan made of quills. In appearance it is similar to those still used today by more conservative Chinese gentlemen, who dislike folding fans because they were not originally developed in this country.

The supply of defense materials would no longer be a pressing question to the governments of warring nations, and modern wars would be fought with still swifter decision if all the imaginary weapons described in *The Appointment of the Gods* were brought into realization by the inventive scientists of the twentieth century.