

# Weaver Who Looks Behind the Cloth

FANG CHI



Chou So-kuei listening to the sound and "feeling the pulse" of a loom to check its running.

Liu Chen

**O**UTSTANDING workers are appearing in all branches of China's industry. Chou So-kuei, a weaver and Communist Party member in the No. 2 State Cotton Mill in Shihchiachuang, north China, is one of them. He has become nationally famous because he has trained himself, by using his eyes and ears and feeling machines with his hands, to detect a loose screw or faulty gear among the more than 900 parts of a fast-moving loom, thus forestalling breakdowns and improving the quality of the cloth. His co-workers call him the "Master of Machines".

To popularize Chou So-kuei's method, training classes for advanced workers from various parts of the country have been organized in the Shihchiachuang mill by the Ministry of Textile Industry. Chou So-kuei has also travelled to Peking, Tientsin, Shanghai and other cities to demonstrate.

The normal approach of a weaver to his work is to concentrate on the cloth face. He looks out for and ties broken threads, watches the warp beam and raises

a red signal if the machine is not functioning properly. Chou So-kuei's approach is just the opposite. He concentrates on the loom itself, constantly checking to anticipate breakdowns. Sometimes he fixes his gaze on a certain moving part; sometimes he puts his ear to the machine, listening like a doctor to the heartbeat of a patient; sometimes he puts his hands on the machine to see if its "pulse" is normal. While giving his main attention to the running of the loom, he can still tie up broken ends.

In a large cotton mill in Peking, he turned up 32 red signals within 35 minutes, noting small flaws in the functioning of the machines before they had developed into breakdowns. In a Shanghai cotton mill he stopped four machines during one round, and the repairmen found trouble in the exact spot he indicated.

## Early Days

Chou So-kuei went to work in the Shihchiachuang mill as a lad of 17 in 1954 on the recommendation of the local people's government. He was enthralled by the sight of the bright, spacious new workshops with their rows of

spinning and weaving machines. The thought that he would learn to work them thrilled him.

As a boy of seven, Chou went begging with his mother after drought had hit their land. One day when standing in a crowd outside a small railway station in central Hopei province he became separated from his mother and never found her again. The small boy was left on his own, hunger and cold his only companions. Wandering from here to there, he finally took refuge in an old temple. He fell ill and would have died if an old peasant woman had not taken pity on him and brought him to her home.

In 1947 the area was liberated and life began to change. In the land reform, Chou So-kuei and the woman who had mothered him each got a piece of land. They were also allotted a house. The miseries he had suffered filled him with deep hatred for the old society. The new society shattered the bonds that had held him and urged him forward along the path pointed out by the Communist Party for the building of socialism.

On February 10, 1955, when he worked his first shift as a learner-

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weaver, he concentrated on keeping his eyes alert and his hands steady. He gave up his rest period to practise on an idle machine. He was a tall lad and his back ached but he refused to give up for a moment. In each of the first eight months of a trial period, he completed his quota with distinction. For several consecutive months he produced no seconds and was cited a pacesetter. He has kept this title through 11 years up to the present.

"So-kuei is determined as an ox," the workers say. "He always rushes in to tackle the hardest jobs."

Thus Chou So-kuei was the one to find the solution when the mill was given an order for fine spun rayon cloth and had trouble with broken threads, and again when the workers were unable to get a special type of poplin up to the required standard.

Always thinking up ways to raise efficiency and lighten the work, Chou one day hit on the idea: "Picking is always done with the right hand. If the right hand can serve the people, why can't the left?" He worked out a method of using the left hand as well as the right. This earned him the name of "Double-handed Sharpshooter."

### New Starting Point

"There is no limit to man's progress," Chou So-kuei wrote in his diary. "Honour bestowed on a worker becomes a new starting point. It is the signal for him to set himself higher standards and stricter demands." The new goal of the "Double-handed Sharpshooter" was to become the master of his machine.

Chou So-kuei saw that the weavers knew little about the construction and working of their looms. This put them in a very passive position, for all they could do when something went wrong was to stop the machine and put up the red signal for the repairman to come to their aid.

When Chou So-kuei told his co-workers of his resolve to know his machine inside out, there were

some who said, "That is not our business. Our work is to produce cloth." Others said, "We've got the repairmen. It's their job to put the loom in order. What's the good of our worrying about it?"

"That's right," another agreed. "Know all about the loom? That's easier said than done, especially for a weaver who has never studied mechanics. You'd just be looking for trouble."

"Am I really setting my sights too high?" Chou So-kuei asked himself when he heard these opinions. Weavers have worked the same way for a long time, he told himself. It's only natural that when such a change is proposed some should be against it. But there were others, he remembered, who had told him, "It's a right move, So-kuei. Go ahead and see what you can do." And Chou Kuo-feng, the workshop Communist Party secretary, had also given him encouragement. "It doesn't matter if there are differences of opinion. Convince the others with

facts. Now we workers are liberated, we are as full of energy as tigers released from a cage. If we learn the working of the machines, we'll be like tigers with wings!"

Chou So-kuei borrowed a set of drawings of a loom from the workshop technician. From these, he located each part on the loom. When there was something he did not understand, he got help from the maintenance man. He visited the homes of many master workmen and asked them about the structure, function and principles. Gradually he became familiar with each of the 900 parts.

Whenever he saw a flaw on the cloth face, he immediately looked for the cause of the trouble in the loom. Whenever he found something wrong with the loom, he immediately looked to see what kind of flaw appeared on the cloth face, while at the same time he listened for any change in the sound of the machine and felt it for changes in vibration.

The shop in the Shihchiachuang mill where Chou So-kuei works.

Li Li



If a breakdown occurred, he arranged his work so that he could watch the repair being made. Set on learning every detail, he followed the repairmen around when he came off shift. Watching them intently, his mind was always at work to figure out ways to prevent breakdowns.

### **The Laws of Breakdowns**

Through persistent study Chou So-kuei attained a thorough knowledge of the loom and also found many ways to pinpoint flaws in its running and to prevent breakdowns. Now he set himself an even more difficult task: to discover the laws governing these breakdowns; to locate and anticipate trouble while the machine was moving at high speed.

To know how the loom was functioning at any given moment, he first trained his eyes to keener observation of the fast-moving parts. He got the idea for this

from an experience he had once had when travelling on an express train. He had wanted to see the name of a station at which the train did not stop. As the train neared the station he concentrated his mind and eyes on the spot at which he thought the name would appear, and was thus able to read the sign as it flashed past. He now practised this technique on his loom until he was finally able to closely observe the working at any point of the fast-moving parts. From the experience gained, he deducted a whole set of laws which enabled him to detect by observation signs of possible breakdown before it actually happened.

His problem now was to anticipate breakdowns caused by malfunctioning of parts hidden from view. One day the workers were listening to a report about a battle fought in the war of liberation. The speaker described how an experienced commander could tell exactly what arms the

enemy was using by listening to the whine of the bullets and sound of the artillery. Chou So-kuei was so excited he almost jumped up to shout, "Yes, that's right. Train your hearing." And that was what he started to do back in the shop until finally his ears were as sensitive as a doctor's stethoscope. Now in the midst of the racket of thousands of looms he can detect the slightest change in sound of a moving part and identify its cause. He supplements what he learns through his eyes and ears by what he feels with his hands. From the vibration of a machine he has trained himself to detect trouble much as a doctor of Chinese traditional medicine diagnoses what ails his patients by feeling their pulse.

A strong desire to build socialism at the greatest possible speed, plus study, training and practice, has enabled Chou So-kuei to realize his ideal of being a true master of his machine.