FRICTION BRAKE ON A LECLERC LOOM

The friction brake permits a fine adjustment of the warp tension. Et is particularly appreciated on a fine material and on fibres without elasticity such as linen and cotton.
It has a fiat wire band, called a wire brake circle, wound several times around a metal drum which is attached to the end of the warp beam.
One end (the one dose to the frame) is attached directly to the loom. The other end is attached to a coil spring which pulls it straight down. The greater the pulling power applied to the wire brake circle the stronger the brake action.

IMPORTANT:
When putting the brake circle on the drum, do not attempt to uncoil it or disturb its coil in any way. If uncoiled or bent, the brake will not operate properly.
To install or remove the warp beam from the loom, insert or extract the brake drum from the wire circle.

It's also important to check the wire brake circle to ensure that none of the coils overlap each other and that they are all in their proper place on the brake drum. These items are critical to the proper operation of the brake.

When you stand near the brake (right side of the loom), the beam must turn clockwise but lock completely counter-clock-wise.

On older looms or on those which have had excessive use, you may find that the brake does not hold properly. This is usually caused by dirt, lint or grease on the wire circle and brake drum. The metal parts should be cleaned with a cleaning solvent. NEVER PUT GREASE, oil or any type of lubricant on the brake system, as it will cause it to slip.
If the brake still does not hold properly, check if the brake drum is too smooth. If so, use a small flat file to score or roughen the surface of the brake drum to allow the wire circle to grip.

THE BRAKE CAN SLIP IF:
1) the installation is wrong
2) the brake drum is too smooth
3) the wire circle is in bad condition (coils have to go around side by side).
4) the spring coil is too old and has lost power.

In order to help you install it correctly, enclose is a drawing of most Friction Brake Systems used by Leclerc over the years, if you have another set-up or have more questions, do not hesitate to contact me:

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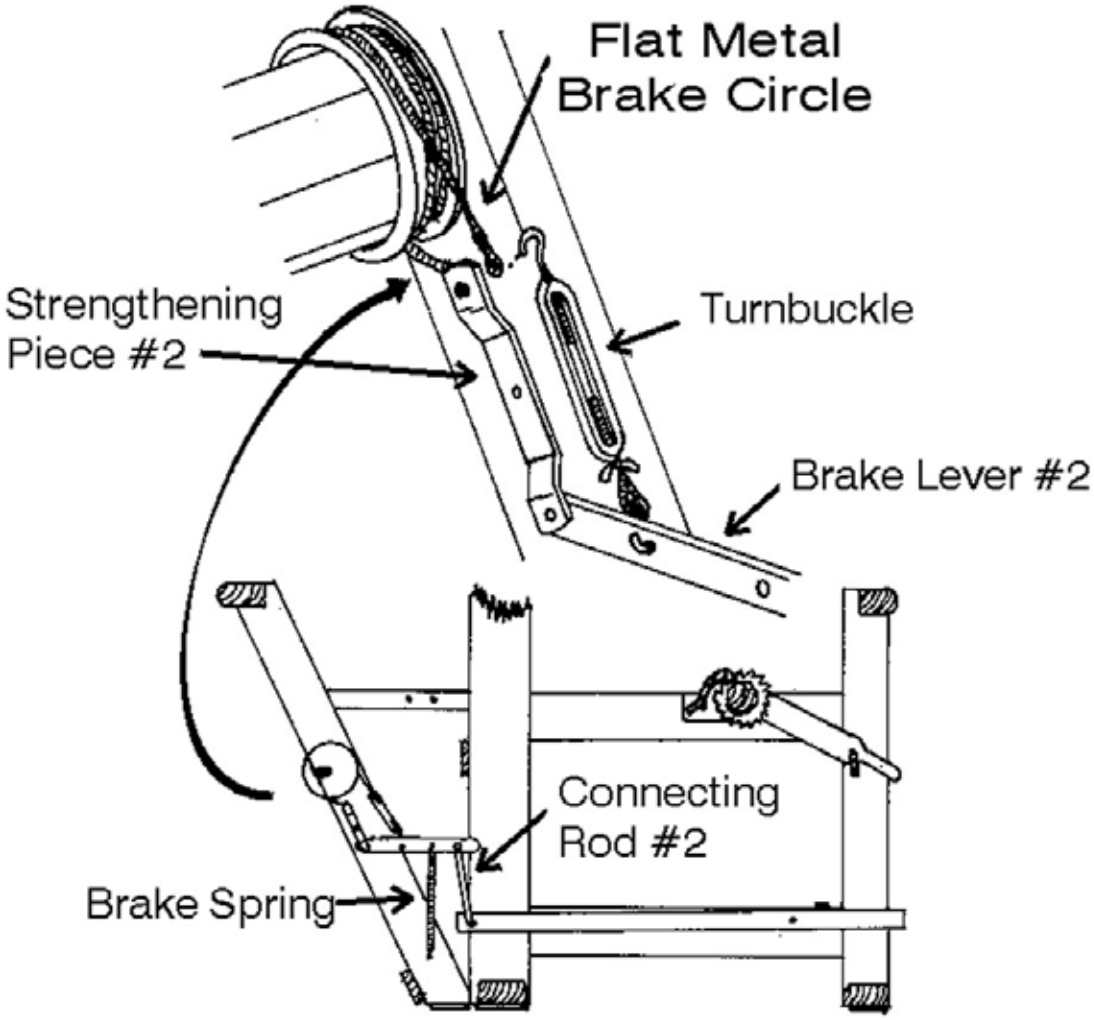
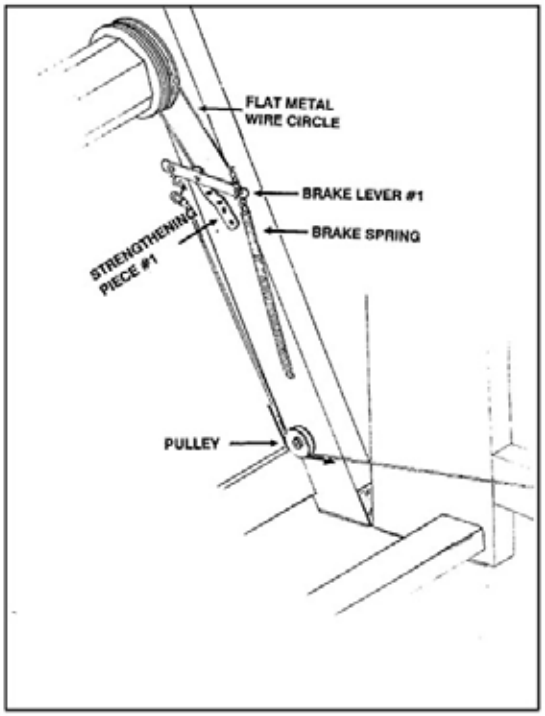
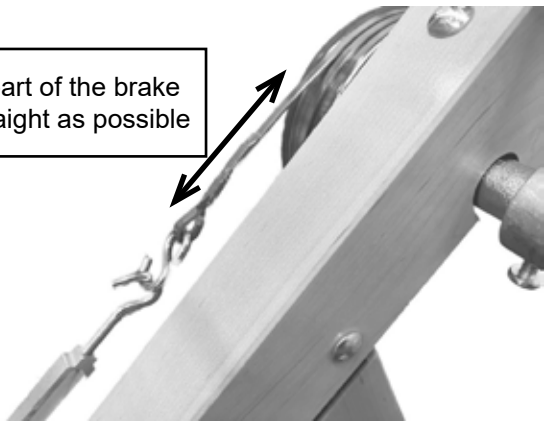


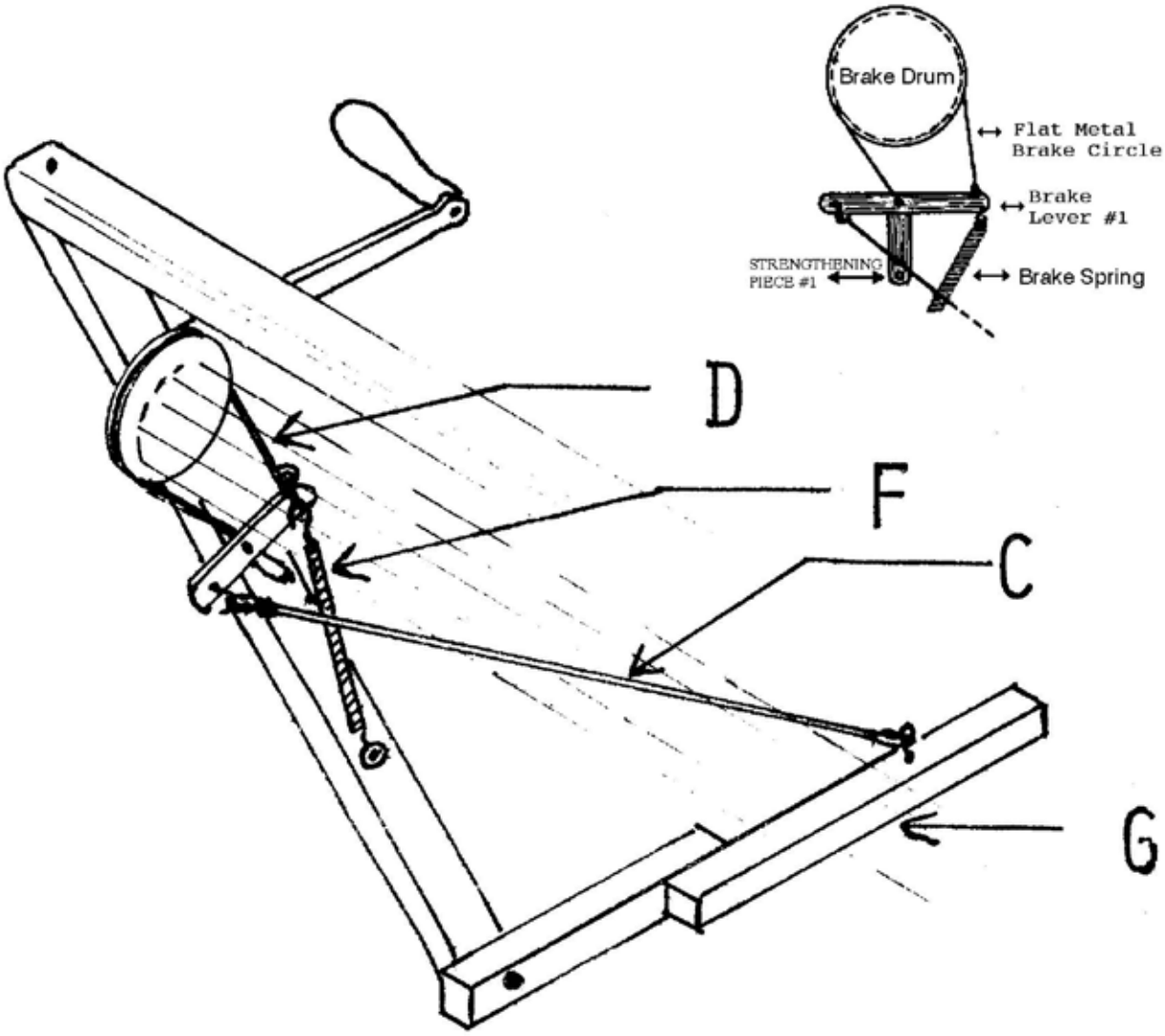


Brake circle

To the back post

Keep this part of the brake circle as straight as possible

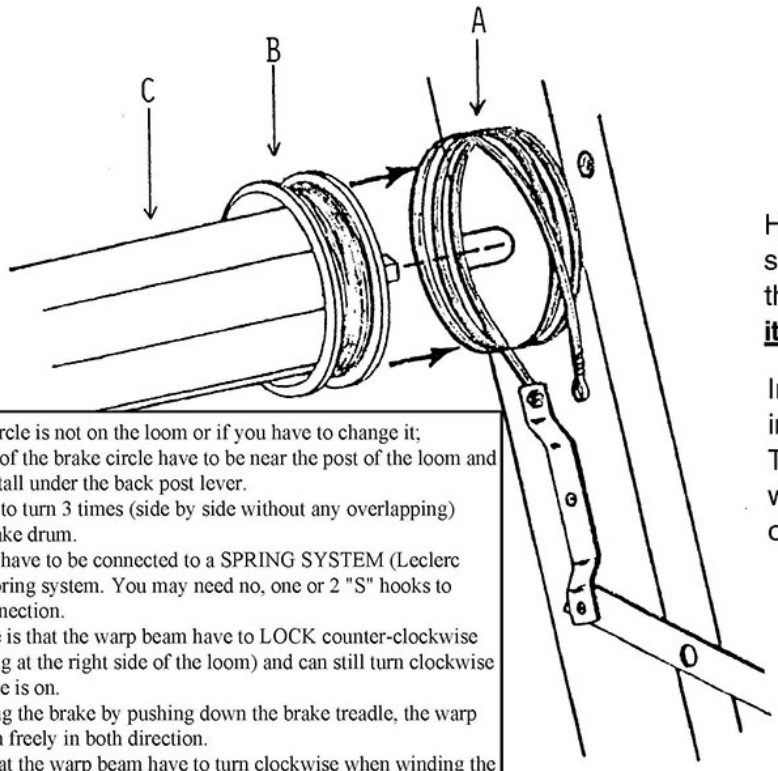




Attach the end of circular brake shoe D (brake circle) to the hook of spring F

Then attach cord C to the hook of brake treadle G

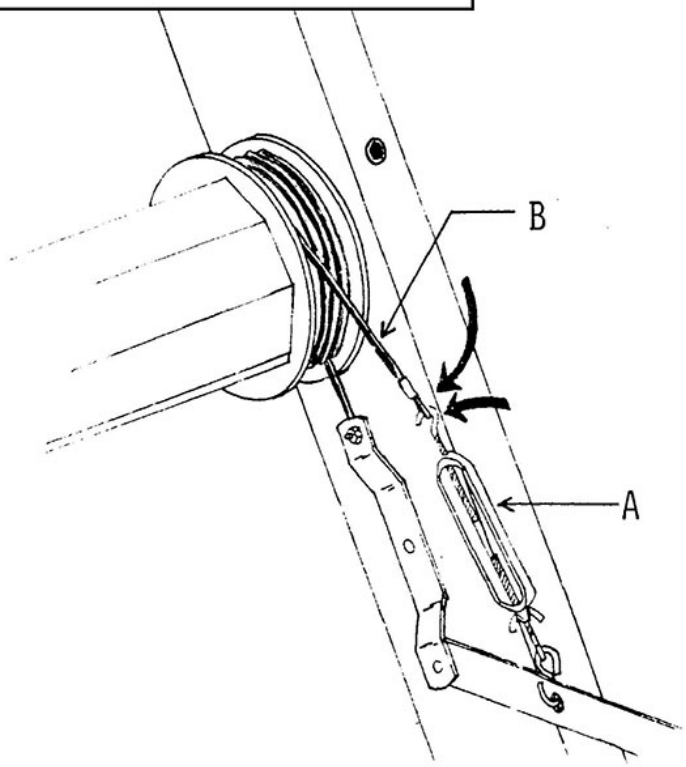
See "Warp and Weave" book (friction brake section page 87)



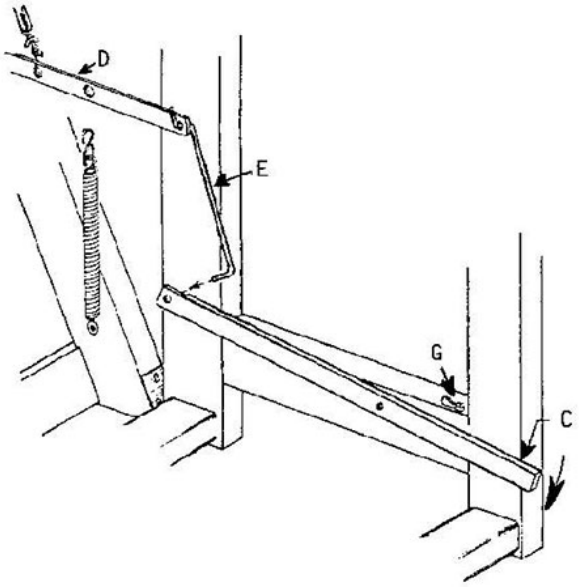
Hold the circular wire brake shoe A slightly to the rear of the loom, **but do not unroll it.**

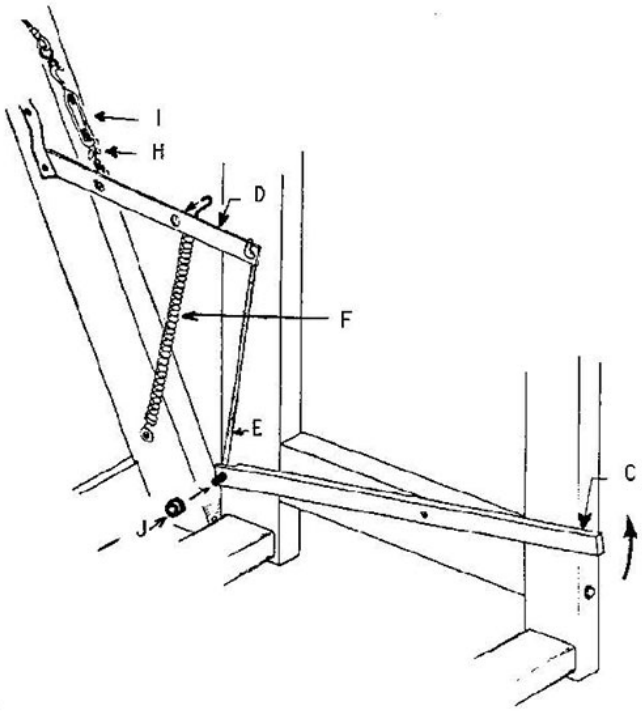
Insert the brake drum B into the wire brake shoe A. Then, install the ends of the warp beam C into the grooves of the back posts.

If the brake circle is not on the loom or if you have to change it;
The back end of the brake circle have to be near the post of the loom and have to be install under the back post lever.
The coil have to turn 3 times (side by side without any overlapping) around the brake drum.
The front end have to be connected to a SPRING SYSTEM (Leclerc made a few spring system. You may need no, one or 2 "S" hooks to make this connection.
The objective is that the warp beam have to LOCK counter-clockwise (while standing at the right side of the loom) and can still turn clockwise when the brake is on.
When releasing the brake by pushing down the brake treadle, the warp beam will turn freely in both direction.
Please note that the warp beam have to turn clockwise when winding the warp on the warp beam.



Hook turnbuckle A to flat wire circle B.





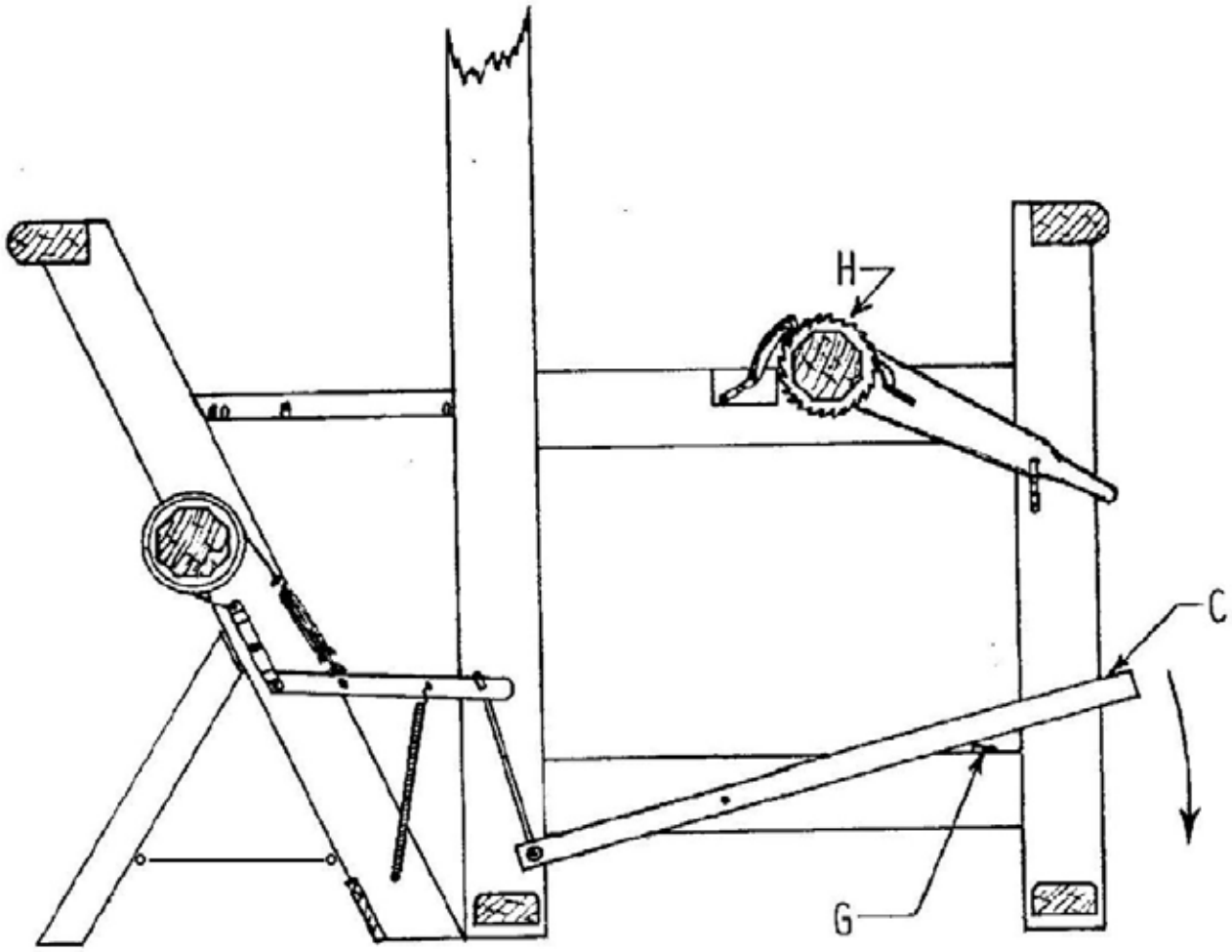
Using metal rod E, join treadle C to lever D. First insert the double-cornered end of the metal rod into lever D; then insert the other end of the metal rod into treadle C while the treadle is depressed.

Raise treadle C as high as possible then hook spring F to lever D.

BRAKE ADJUSTMENT:
Release the brake by depressing treadle C and locking it down with the catch G. The warp beam should turn freely but the circular brake wire should not be too slack. If the tension is too great, unscrew the wing nut H slightly and then loosen the turnbuckle I. If the tension is too slack, tighten the turnbuckle I slightly and then the wing nut H.

Add a black rubber ring J to the lower end of the rod E, to prevent the rod from slipping out.

If the brake spring is too weak (turnbuckle completely closed) you can lower the bottom part or install a new one.



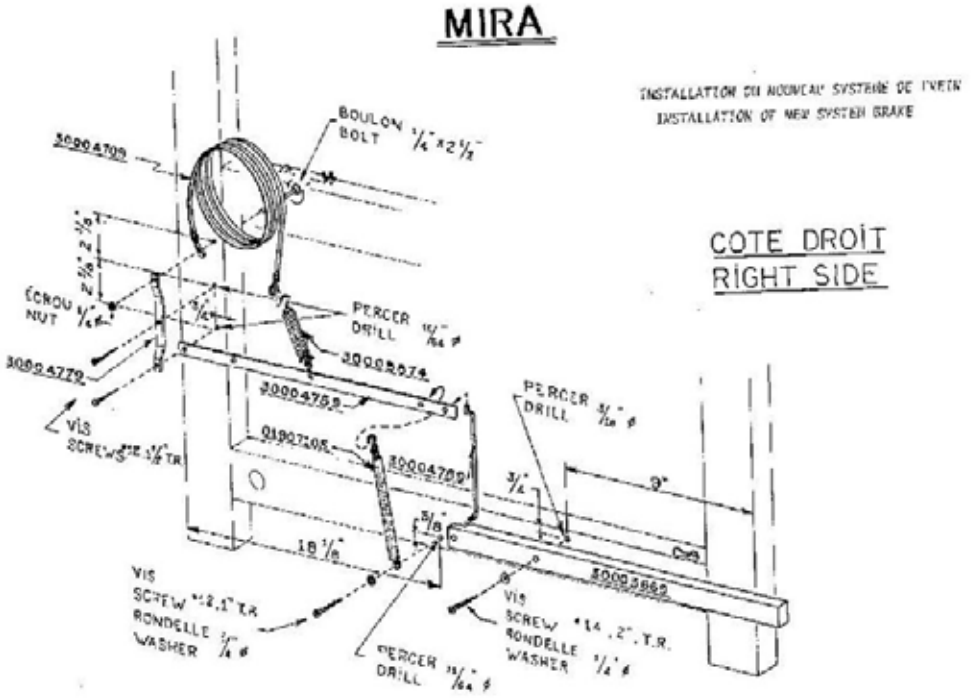
BEAMING:

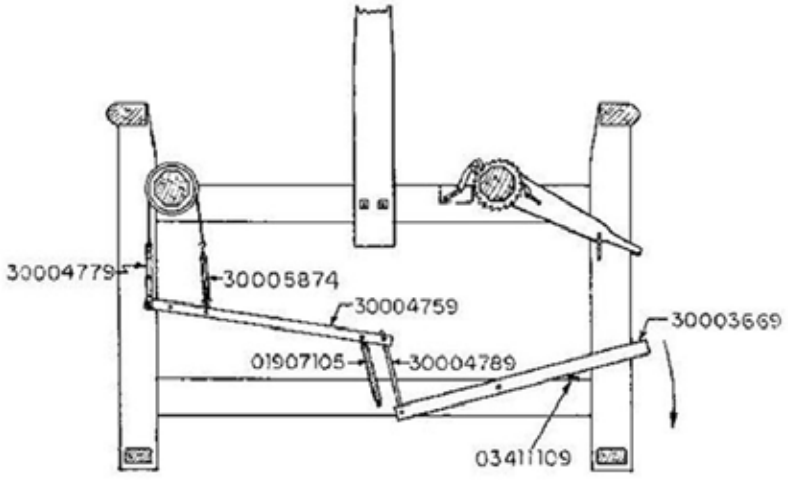
Release the brake by depressing treadle C and by locking it down with catch G.

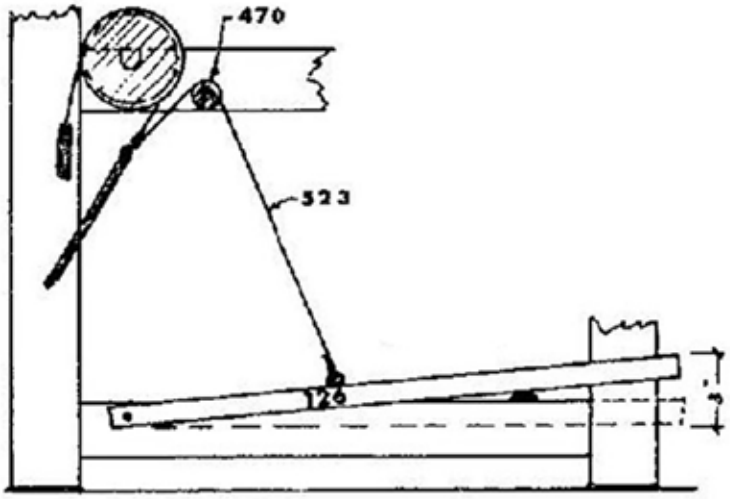
WEAVING:

To advance the warp, depress brake treadle C and turn cloth beam H at the same time. Then release brake treadle C and advance the cloth beam until the next notch in the ratchet gear is reached. If this is too much tension, gently depress the brake treadle until the desired tension is obtained. (Fig. 9)

BRAKE SYSTEMS ON A MIRA LECLERC LOOM







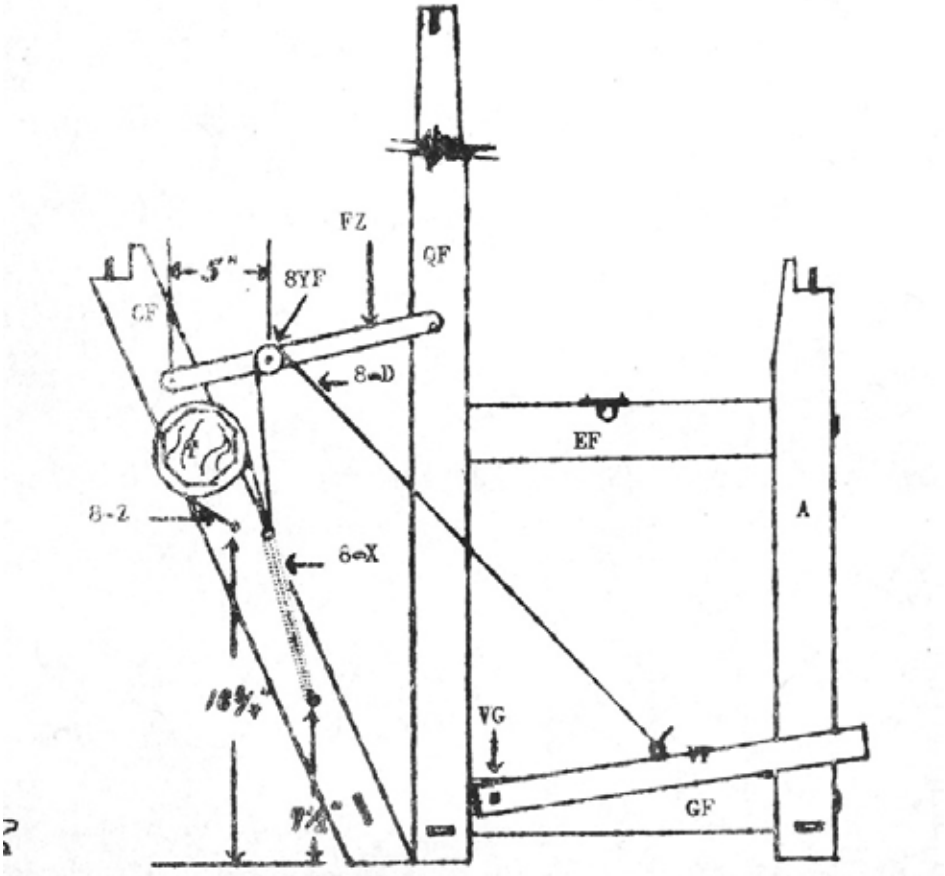
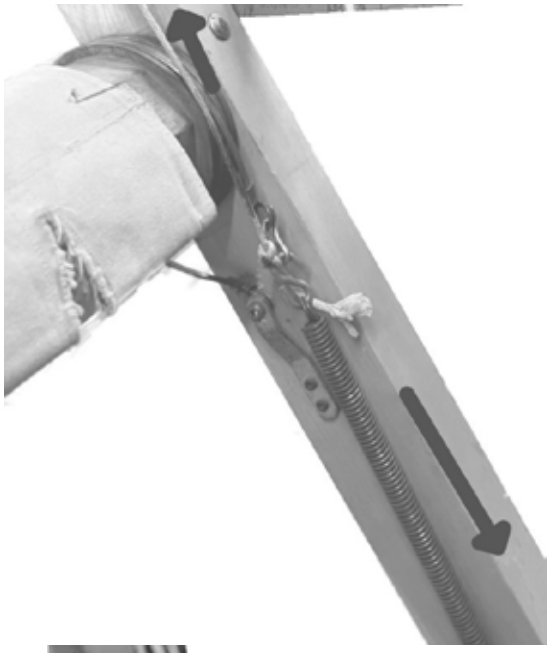


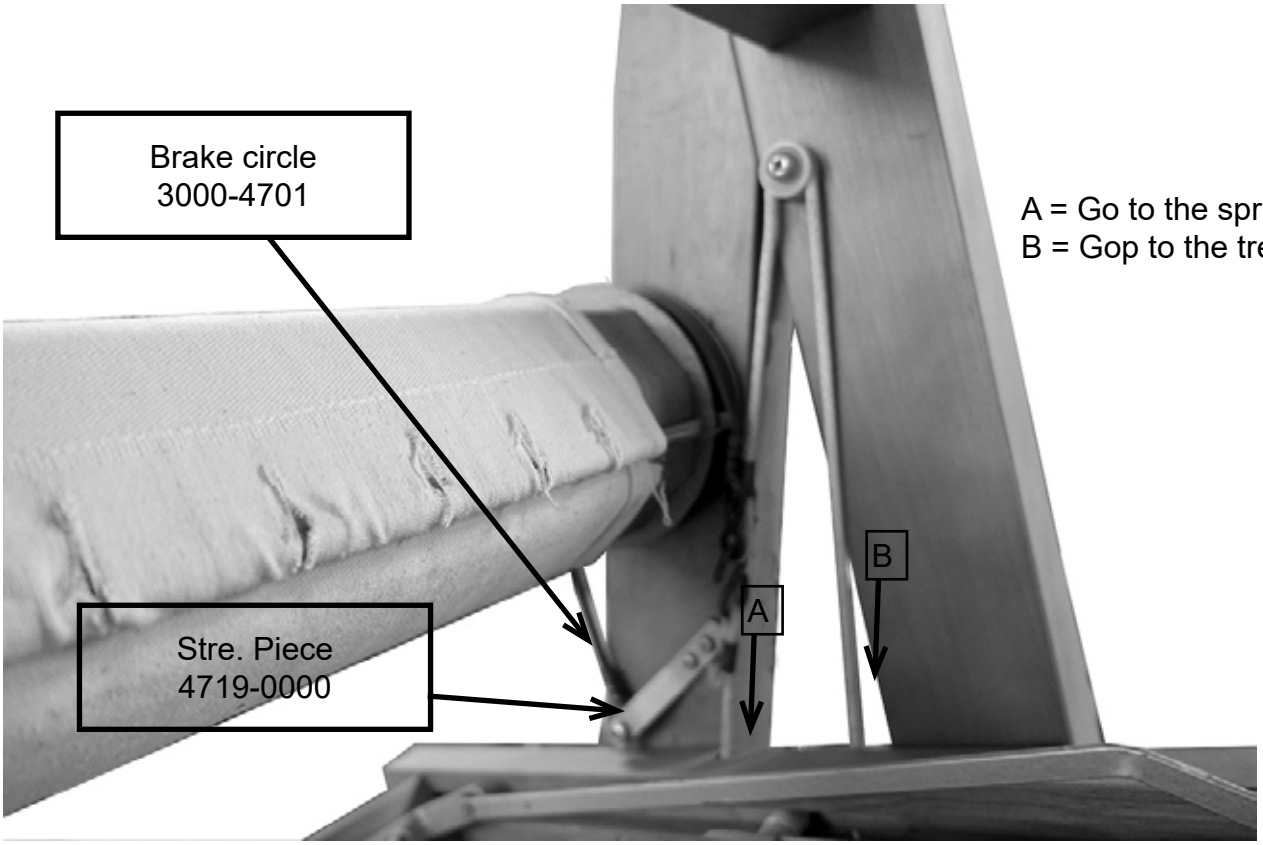
Fig. 110

Some very old system

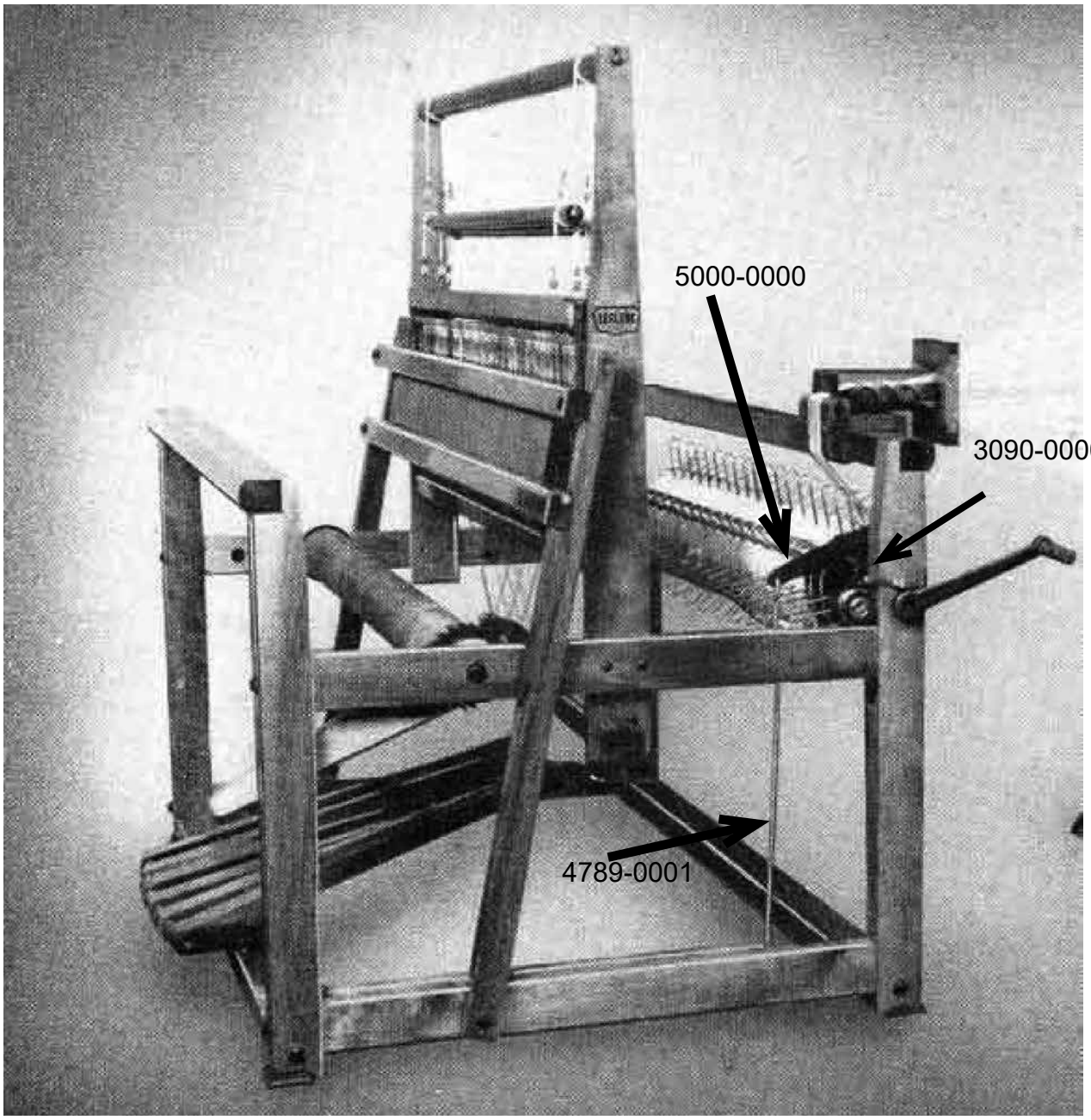


The brake cords passing around the pulley is connected to the front side of the brake circle and the spring. Pushing the brake treadle will release the brake circle and stretch the spring.

Tissart Friction brake system



A = Go to the spring
B = Gop to the treadle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