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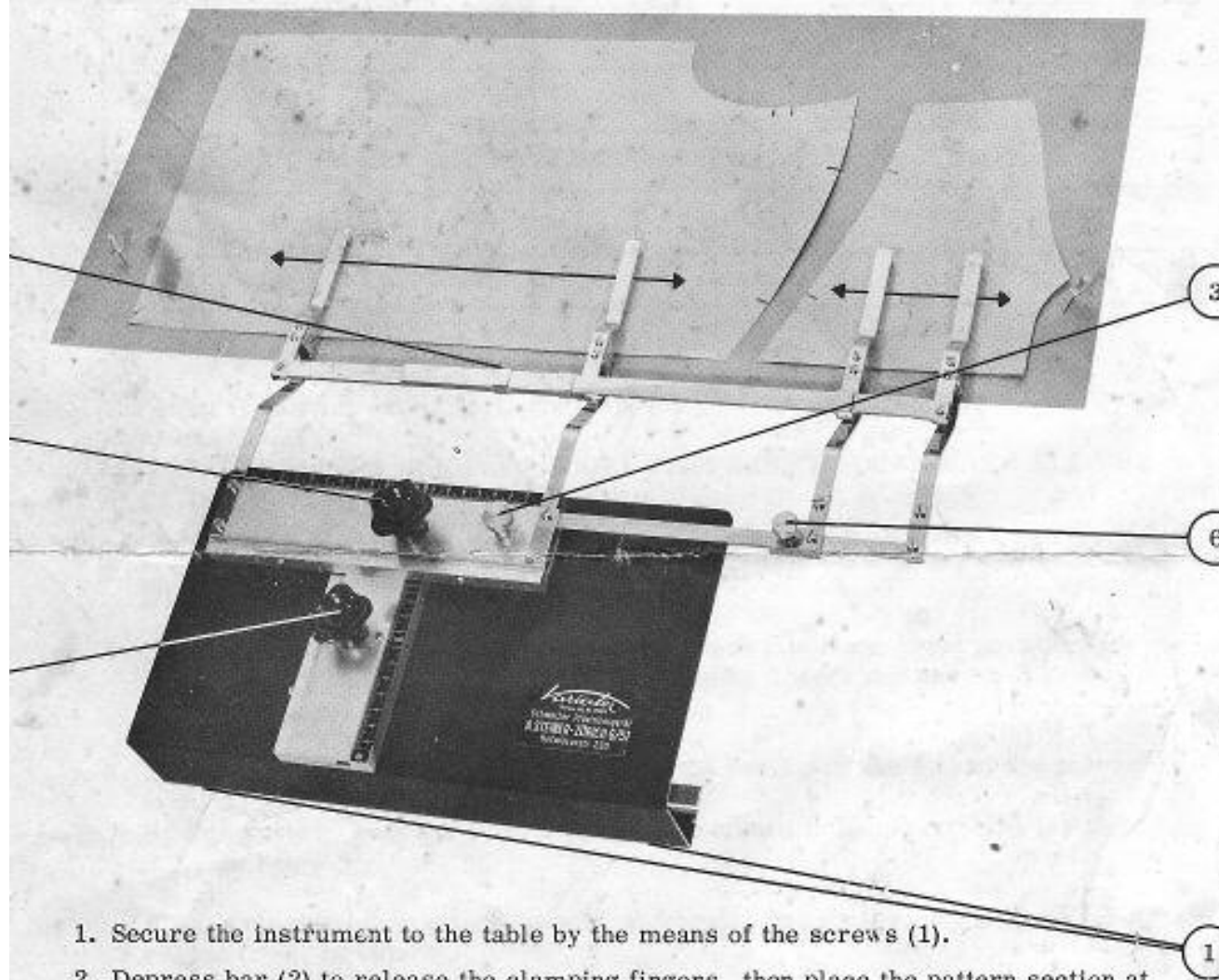
# Variator

Marque d'Etat. No. 106621-22

SWISS PATENTED PRECISION INSTRUMENT  
FOR UP- OR DOWNGRADING OF PATTERNS

## INSTRUCTIONS

(The illustration below, shows a back of two pieces, which can be up- or downgraded in a single operation.)



1. Secure the instrument to the table by the means of the screws (1).
2. Depress bar (2) to release the clamping fingers, then place the pattern section at the proper angle.  
(Patterns with a straight edge should be put all the way back to the clamping fingers.)  
To bring a pattern with no straight edge in a square position, you have to find the grain and put that to the backing board.  
Then press the clamping fingers down.
3. The two outer clamping fingers can be removed or installed as required by means of the screw (3).  
As shown in the illustration, the outer fingers are used for detached pieces WHICH CAN THEREBY BE GRADED IN THE SAME OPERATION.  
As a rule, however, only the two main fingers are in use.
- 4.+5. When starting, always set the knobs to the home position 0.  
Knob 4 is for length measurements.  
Knob 5 is for width measurements.
6. The set-screw (6) is used for adjusting the clamping finger

## METHOD

The Variator works to any standard of Grading-System, and it is therefore advisable before starting work, to set up a corresponding chart.

### EXAMPLE:

Sizes <i>etc.</i>	Waist length	full length	acr. back	chest	waist	hips	etc.	etc.	
36	-1/2	- 1	-1/2						
38	-1/4	-1/2	-1/4						
40	ORIGINAL MODEL PATTERN (can be any size)								
42	+1/4	+1/2	+1/4						
44	+1/2	+ 1	+1/2						

*etc.*

The point is to work out a chart, corresponding to the measurements on which your sizes are based.

WORKING FROM THE ORIGINAL MODEL PATTERN, YOU CAN MAKE ALL THE FOLLOWING SIZES IN ONE OPERATION.

1. For efficient operation, prepare the pattern paper for front, back, sleeves, etc., for all the particular sizes in advance.
2. Clamp the section of the Original Model Pattern into the correct position, put the prepared pattern paper underneath the clamping fingers and use Push Pins or weights to hold the paper to the table.
3. Turn the knobs to bring the instrument to the home position 0, you are now ready to start.  
By this system, only the outer contours are traced in length or width (as shown in diagram below.)

Always place another pattern paper underneath, one by one, until all the pieces are graded (up or down).

HERE FOR EXAMPLE:



To connect the lines, always use the next size.