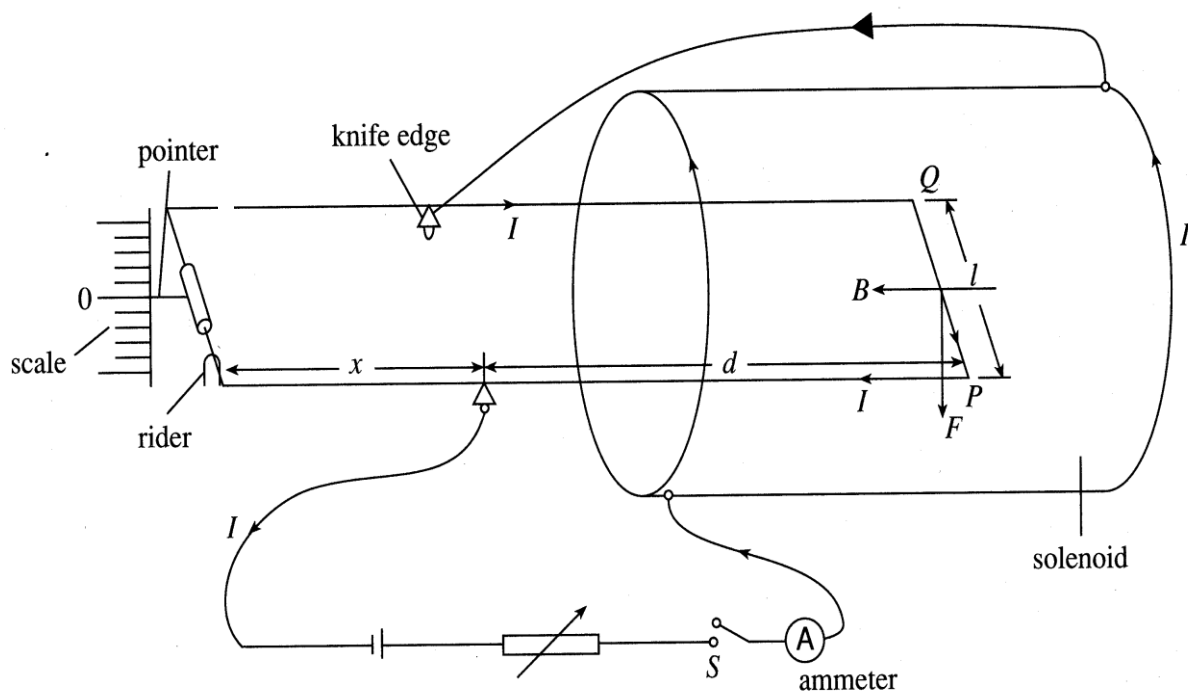


- 24** A current balance device as shown in the figure below was set up to determine the magnetic field strength created by a solenoid. The first experiment determined the magnetic field strength as  $B$ . The setup was used again with one or some of the factors changed. A larger mass of the rider had to be used in the second experiment.



Which one of the following could most likely be the changes made?

- A** The knife edge was moved closer to  $PQ$ .
- B** Another frame with a shorter length for  $PQ$  was used.
- C** The current passing through the solenoid and the number of turns of the solenoid are reduced.

- D** The first experiment was set up such that the direction of the Earth's magnetic field is opposite to the magnetic field created by the coil while the second experiment had both magnetic fields in the same direction.