

Hands On Learning

with Reading Museum Service

SHADUF

AH3/A

This is a model of a shaduf. A shaduf is a simple hand operated machine used to lift water from a lower level to a higher one. It is used to irrigate, (water) crops. It is made of a long pole hung from a crossbeam. A heavy weight is attached to one end of the pole and a bucket to the other. By pulling the pole down the bucket can be lowered into the water and filled. When the rope is let go of, the weight on the opposite end causes the bucket to lift up, out of the water. It can then be emptied onto the land and the crops. It is very effective in that it allows a large quantity and therefore weight of water to be lifted. It is better for humans too as when operating the shaduf, the leg and arm muscles are used, but no strain is put on the back.

Shadufs were invented in ancient times and are still used in some countries today. The ancient Egyptians relied upon them heavily to water the crops growing in the high lying fields during the spring and early summer. They would have built them at the banks of the river Nile, or on the banks of the channels they made to divert water from the river. A series of shadufs could be used if the ground was especially high or far from the source of the water.



Usually shadufs would be made from wooden beams, secured or hung together with rope. The weight could be made simply from clay or by attaching a large heavy stone to one end. The bucket in Egyptian times was often made from clay or animal skin.