LEE SCOTT McDONALD

AUG 20 1986

Care of the Mould and Deckle

Preparation of the mould for use

The mould should be cleaned before use to insure that it is free from sawdust and other debris left over from the making of it. The best method for cleaning is to use a hose with a spray nozzle making sure to spray all sides of the mould and deckle. The mould can be cleaned this way if pulp backs up in the screen or at the end of a day of making paper. It can be cleaned again before use to make sure there are no knots of pulp which will get into the paper being made. This also wets the mould's surface which makes the water drain properly.

If a hose is not available dipping the mould in a vat of water will help clean out unwanted pulp. Remember that wet pulp is easier to remove than dried pulp. Tweezers may also be helpful. If slivers of wood are ever discovered they should be cut cleanly and removed from the mould to make sure that they do not end up in the paper.

Refinishing

While the wood used in the moulds do not need any finish at all it is generally a good idea to coat them annually with a penetrating sealer. They can be coated more often if they are under heavy use or any time that it is deemed necessary. When recoating it is important to stay away from surface finishes such as varnishes, shellac polyurathanes, etc. as they are generally not made to be in constant immersion in water and will eventually start to break down at the corners due to the flexing of the mould. When cracks start appearing water can seep through to the wood and since it is hard for the water to escape the wood stays damp all the time and rotting starts to take place. The other problem which can happen is for the finish to start flaking and for bits of finish to end up in the paper as junk. What should be used is any good penetrating, waterproofing sealer.The moulds

have been treated with Thompson's Water Seal which is quite satisfactory for the process. Check with your local paint of hardware store to see what they have but be sure to get one that goes into the wood and is not a hard surface coating. There are several sealers available and even boiled linseed oil has been used with results.

Red Stain

There is a tendency for mahogany to impart a red stain into the water and for slivers of new mahogany to color the surrounding paper with a redish tint. Time and use of the mould will make this staining go away but if the amount of staining is objectionable soaking the mould in a vat of water and changing the water will remove a lot of the stain. A mild bleach may be used but care must be taken as the bleach reacts with the brass and copper producing green patina of an objectionable sort. Do not leave them in too long and rinse them well and it may be necessary to clean the metal surfaces with a good brass cleaner.

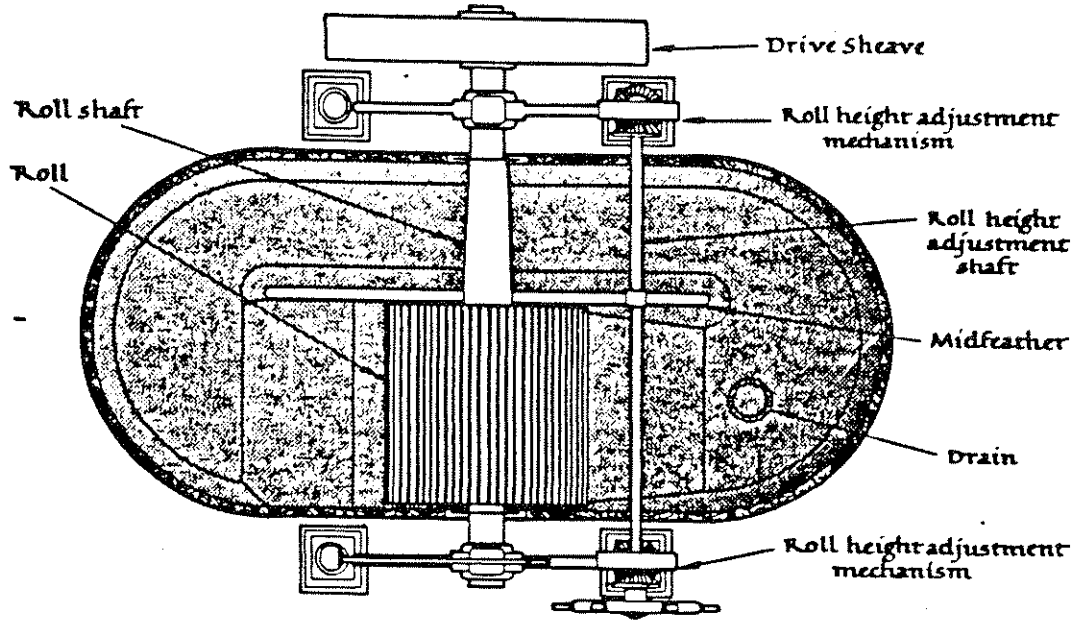
Storage

The mould and deckle can be stored either horizontally or vertically on racks or shelves. The main consideration is that the mould and deckle are not left to dry in such a way that they will be subject to warpage such as if left on an uneven surface and other object were placed on top or if the deckle was leaned against a pole and not supported evenly there would be a tendency for it to warp. Common sense should prevail and no no problems should arise. In old production mills they used to tie the moulds together to minimize the warping.

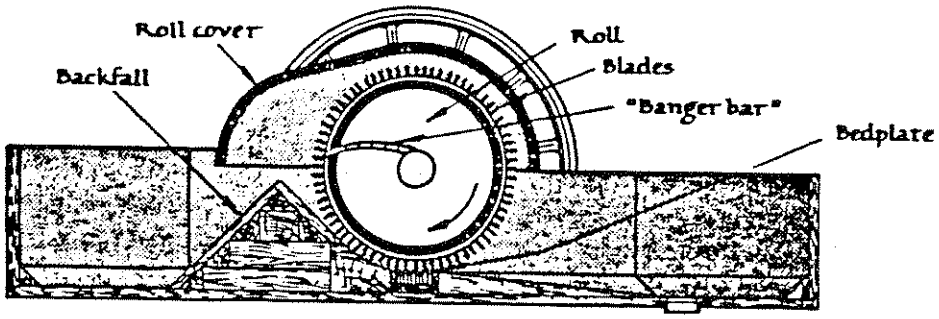
Tight fitting deckles

If the deckle does not fit quite as tight as one would like and the places where it is forming a large deckle edge is between two ribs it is possible to press the metal screen from the back side of the mould until it comes up flush with the deckle. If an extremely tight deckle is wanted the addition of a closed cell foam strip such as weatherstripping will make for a very tight seal.

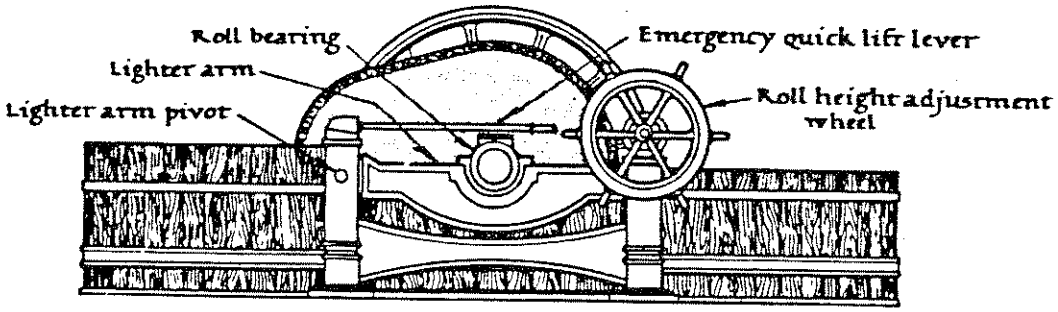
For answers to questions which have not been covered by this sheet please let your questions be known and an answer will be prompt in coming.



TOP VIEW · *shown with roll cover removed*



SIDE VIEW · *cutaway showing roll, bedplate and backfall*

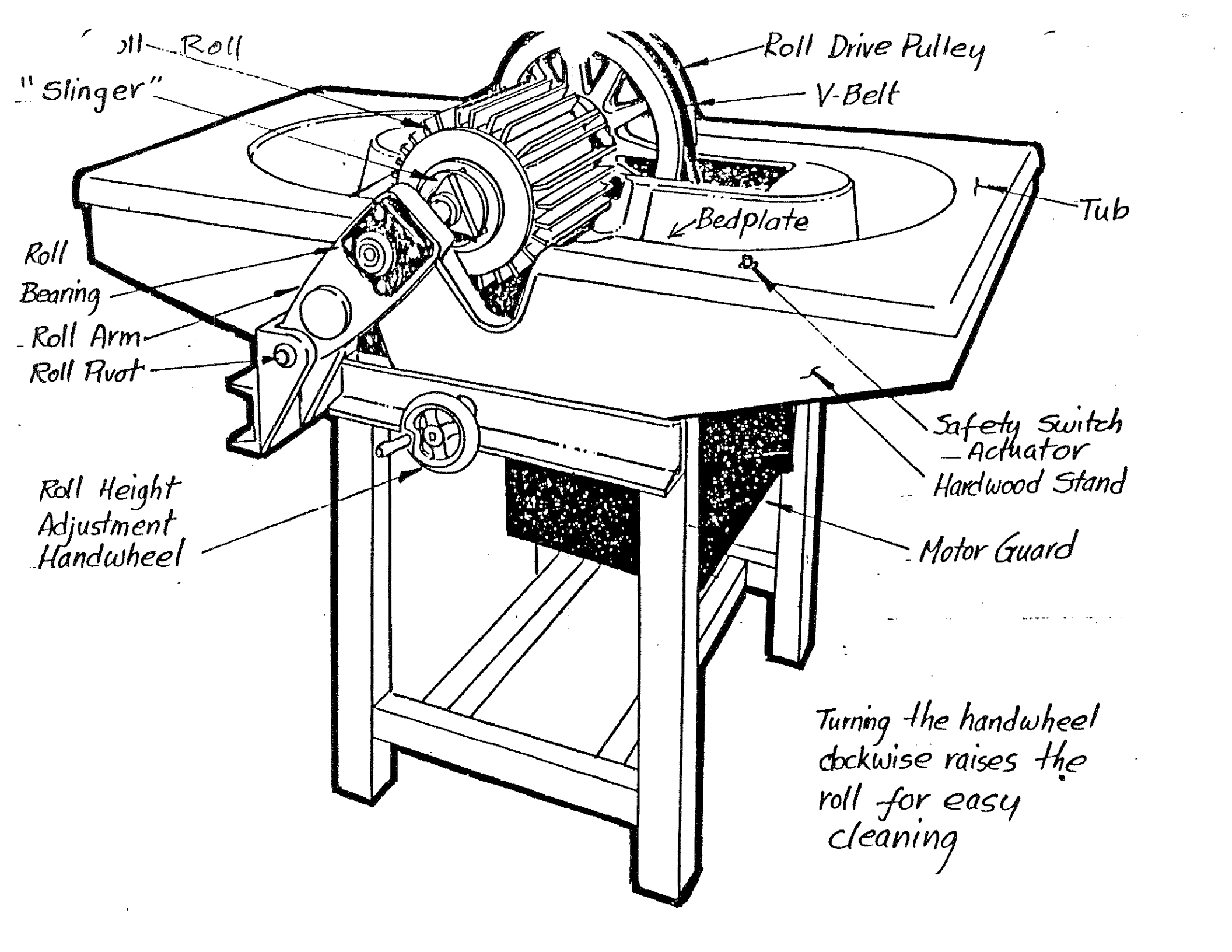


SIDE VIEW · *showing roll height adjustment mechanism*

HOLLANDER BEATER CA 1850

Materials · iron, wood, sheet lead for tub lining

Originally invented by the Dutch in the late 1600s, the Hollander Beater has survived virtually unchanged and is still used by paper mills the world over. Linen and cotton rags circulate around the tub and are lacerated by the action of the metal bars of the roll revolving over a bed plate set in the bottom of the tub.


Roll
"Slinger"
Roll Drive Pulley
V-Belt
Tub
Bedplate
Roll
Bearing
Roll Arm
Roll Pivot
Safety Switch
Actuator
Hardwood Stand
Roll Height
Adjustment
Handwheel
Motor Guard
Turning the handwheel clockwise raises the roll for easy cleaning

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TWINROCKER EQUIPMENT CORPORATION

THE HOWARD CLARK HOLLANDER BEATER

After seven years experience designing and building all the papermaking equipment at Twinrocker for production use, Howard Clark has designed a hollander beater especially for the fine art papermaker working in schools and private studios. Howard Clark has degrees in Mechanical Engineering from Purdue University and Industrial Design from Wayne State University with years of experience in both fields before beginning Twinrocker in 1971. This new hollander beater brings together all his training and professional experience in design, engineering and papermaking.

Designed for the artist, the Howard Clark Hollander will pulp cotton rag, cotton linter, straw, flax and any other type of cellulose fiber. The beater is an ideal size for creative art work, pulping 2 1/2 pounds of dry fiber, not too big for the experimental batch of pulp or too small for the production run. When changing from one fiber to another, you will appreciate the fact that this beater is specifically designed for effortless cleaning. The cover is easily removable, and the roll can be raised to clean around the bedplate.

The Howard Clark Hollander Beater has also been designed for saftey. The cover design prohibits a person from getting his hands near the roll while it is in use. The pulley is located in the center of the tub, away from clothing, and it is completely protected by the beater cover when the beater is pulping. Also, this beater is light enough to be moved easily from one place to another.

The Howard Clark Hollander Beater is in daily use under the rigorous, professional conditions of the Twinrocker Mill.