City of Richmond

Report to Committee

To:	Parks, Recreation and Cultural Services Committee	**Date:**	August 30, 2005
From:	Kate Sparrow, Director, Recreation & Cultural Services	**File:**	11-7000-03/2005-Vol 01
Re:	**Lubzinski Collection**		

Staff Recommendation

That staff be authorized to spend up to $75,000 from the Council Provision Account to move and store equipment from Marine Products Company, process the selected archival materials and do 'as found' drawings of the building.

Kate Sparrow
Recreation & Cultural Services
(4129)

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ROUTED TO:	**CONCURRENCE**		**CONCURRENCE OF GENERAL MANAGER**	
Budgets	Y ☑ N ☐			
Parks	Y ☑ N ☐			
Clerks (Archives)	Y ☑ N ☐			
REVIEWED BY TAG	YES ☑	NO ☐	**REVIEWED BY CAO**	YES ☑ NO ☐

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Staff Report

Origin

At the June 28th, 2005 Parks, Recreation & Cultural Services Committee meeting the following referral motion was passed:

> *That the possible acquisition of the equipment from the Lubzinski Boat Works and Marine Products Ltd. be referred to staff for review, and that Council be invited to visit the Lubzinski shop on either July 4th or 5th to witness the final pouring from the blast furnace to manufacture casting for ordered ship wheels.*

This report responds to the first part of this referral regarding the possible acquisition of equipment.

Analysis

Marine Products Company was started in 1950 by Jack and Joe Lubzinski at the site where it currently operates on No. 3 Road. Prior to setting up shop at the No. 3 Road site the Lubzinski's worked with family members at the Kishi Boatworks during World War 2 and started building ship's wheels whilst there. The current property has recently been purchased for redevelopment and the Lubzinski's have offered their equipment to the City for a display of ship's wheel fabrication at Britannia. The process used, and most of the equipment, have been developed and built by Jack Lubzinski over the course of the 55 years of operation.

The acquisition of this equipment presents the City of Richmond with a rare opportunity to commemorate an extremely specialized trade that was perfected by Jack Lubzinski. Although operational industrial equipment is not that rare, given changing technology, plants close down on a regular basis, it can be stated with certainty that this particular collection would be unique in the world and even more valuable due to the fact it is still operational. The existing patent for the hub from the Smithsonian Institute is evidence of this. It is also notable that the wheels produced by the business were distributed world wide, a large accomplishment by a small Richmond company particularly in the early days.

Museum staff have had an opportunity to tour the business with the owners and video the process used to build a ship's wheel. They have also gathered extensive interview notes from the brothers on their experiences in the business.

In order to set up an exhibit at Britannia to tell the story of the building of ship's wheels it has been determined that four major pieces plus the foundry should be acquired in addition to examples of the patterns, hub moulds, some finished and unfinished wheels and some documentary material. Also, the business records of the company could be acquired as archival material.

The following pieces are essential to telling the story of the process and of the owners. All pieces were designed and built or modified by Jack Lubzinski. **Attachment 1** shows photographs of each piece.

Multi saw – This piece shows how the wheel shape is created. It was developed to ensure a high degree of accuracy in the cuts so that when all the pieces were put together the fit would be perfect. It took three years to set it properly to get the highest degree of accuracy in the cuts.

Shaper – When the "wheel" comes out of the multi saw it is more hexagonal with sharp angles than round. The shaper demonstrates how the "wheel" is made round.

Plane for spokes – A regular planer was adapted to shape all the spokes for the wheels. A 2"x2" piece of mahogany is placed in the planer and precisely planes the spoke shape.

Multi drill - The multi drill is unique because unlike most other operations that drill the holes in the hub when it is not attached to the wheel and spokes this design allows the hub to be drilled while it was attached to the wheel and spoke. This provides for a tighter connection between all parts of the wheel. The drill is large in order to accommodate a wheel up to 7 feet in diameter.

Foundry - This includes a large furnace, two smaller melting pots and a washing machine which cleans the moulded pieces after they come out of the forms. While the foundry itself is not unique to this business, foundries or equipment to melt lead would have been located in any major plants along the waterfront. Currently, there is not one at either of the two major heritage sites – Britannia or the Gulf of Georgia Cannery. This is an opportunity to obtain a significant piece of industrial history.

The pieces chosen will clearly demonstrate how a wheel was created by this company and at the same time tell the story of Jack Lubzinski: his inventiveness, his life and his love of mathematics. Jack created this machinery from his overriding drive to increase the company's speed and accuracy in producing the wheels.

Should the above pieces be acquired it is proposed that an exhibit be designed and built at Britannia. An exhibit using the four pieces of significance for the ship's wheel building along with the patterns, moulds, and documentation could be in the Seine Net Loft. An area of 1500 to 2000 square feet would be required. The foundry would be set up in the boatyard in front of the Shipyard Building.

Other pieces of significance that could be acquired and stored as part of Richmond's historical collection or loaned/traded are:

- Circular sander
- 2 buffing machines (one for wheels, one for spindles)
- Aluminium foundry
- Multi-lathe
- Washer & tank
- Compressor with tank
- Saw sharpener

Attachment 2 provides explanations of this equipment. It is estimated that approximately 500 square feet would be required for storage (not exhibit) of these items. Storage for historical artefacts is currently at capacity.

As the area is being developed around the current site of Marine Products Company opportunities are being explored to incorporate artefacts from the company into both public and privately developed spaces to act as a permanent reminder of this internationally known company.

In addition, staff are looking at the feasibility of incorporating some of the mahogany into the Speed Skating Oval as a permanent reminder of the company located in the area.

Staff from the Richmond Archives have been working with the Lubzinski's to select relevant business records and other archival material. This material will require an assessment of contamination, cleaning of any contaminates and general cleaning of the documents before introduction into the archives. They will then require archival processing into the collection.

It is also recommended that "as found" drawings of the building be done. The building was built in pieces by Jack at their home on No. 2 Road and taken to the current site. Many of the pieces of equipment had the walls built around them.

Britannia Advisory Board

The Britannia Advisory Board discussed the Lubzinski Collection and supported in principal that a small exhibit to interpret the business would be appropriate for Britannia. For the full motion of the Advisory Board see **Attachment 3**.

Britannia Business Plan

The Britannia Business Plan outlines a vision for the site to be

> *"a publicly accessible waterfront heritage park and working museum with passive, active and interactive activities, focusing on the local industrial marine heritage. Emphasis is on the west coast wooden commercial fish boat building and repair that was historically based in Steveston; and the cultural mosaic and living conditions of the labour force on the Steveston waterfront."*

While the Business Plan is silent on the fabrication of ship's wheels it does make reference to displays depicting the industrial heritage of the waterfront and the need to ensure access to research and financial resources to develop exhibits that are accurate, informative, interpretive and interactive.

Cost Implications

All moving costs are based on free and clear unencumbered access to both the Lubzinski plant and Britannia during the moves. They do not include reassembly of the machines. Moving cost estimates were provided by Incarta and Pro-Tech Industrial Movers. (see **Attachment 4**)

Moving and Storage		
Moving the four primary exhibit pieces plus foundry equipment to Britannia and preparing interim storage areas	$11,370	
Moving and storing ten additional pieces	$10,920	
Moving sawmill	$ 4,280	
Relocate all wheels, unfinished wood products & mahogany stock	$11,850	
To ensure the free and unencumbered access precise coordination with the demolition crews will be required. A project manager skilled in moves of this sort is recommended to ensure coordination between the moving company, the demolition crew and City crews at Britannia.	15 days x $600	
Total		$47,420
Processing of Selected Archival Materials		
Conservation assessment to determine if contaminated $75/hour x 6 hours (est.)	$450	
If contaminated (metal filings, asbestos, chemicals) - $25 - $35 per document to clean of contaminates – 28 documents x $35	$980	
Cleaning – (if not contaminated or after decontamination) cleaned at archives by a team led by a conservator – dependant on findings of conservation assessment	$1,000 to $10,000	
Total		$11,430
Archival processing		
Archival processing could be done by an archival intern.		N/A
'As Found' Drawings of the Building		
Estimate from MAIBC		$1500
Exhibit Set Up		
Conceptual design to final drawings and fabrication for 1500 square foot exhibit (research, text writing, graphic design, infrastructure including electrical, lighting, signage). Industry standard costs for exhibit preparation are in 2005 $ depending on high tech/low tech; interactive vs passive. **Note**: Comparison costs for the Gulf of Georgia Cannery exhibits (not including staff time): Herring Reduction Plant $582,100; Project 9: $875,800; Canning Line and East Wing: $1,255,000	$400 - $550 per sq foot	$600,000 - $825,000

Financial Impact

Moving and Storage	$47,420
Processing of Selected Archival Materials	$11,430
As Found Drawings of the building	$ 1,500
Contingency at 20%	$12,070
TOTAL	$72,420

Funding for this could be taken from the 2005 Council Provision Account. There are sufficient funds.

Conclusion

The Lubzinski Collection is a rare and valuable piece of Richmond's history, with a connection to Britannia. It is even more valuable due to the fact that it is still operational. It is important in preserving the heritage of the community that effort be taken to tell the story of these remarkable men and their "made in Richmond" company. An exhibit at Britannia with as many artefacts as required to tell the story with a few additional pieces is recommended.

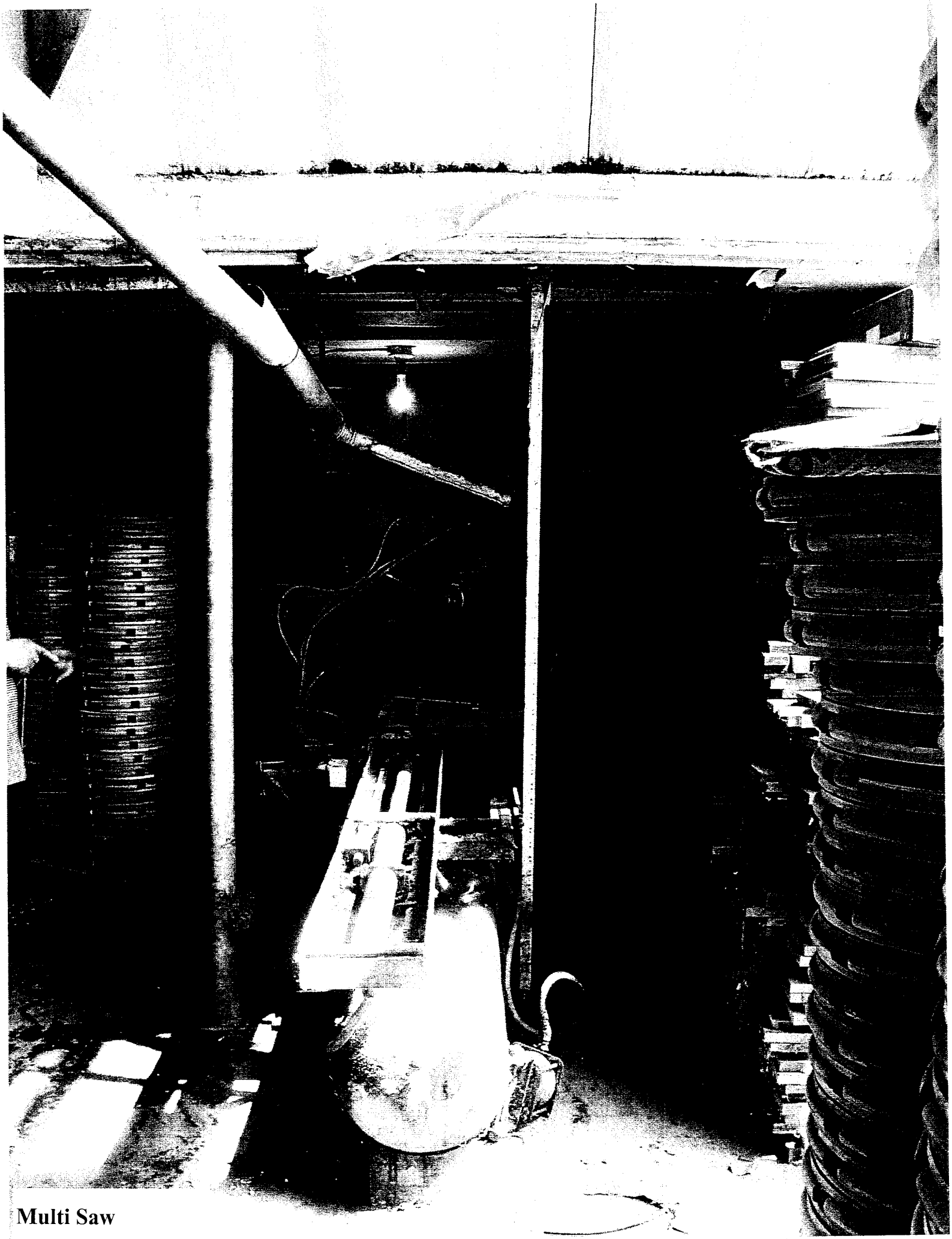
It is recommended that staff be authorized to spend up to $75,000 from the Council Provision Account to move and store equipment, process the selected archival materials and do 'as found' drawings of the building. An additional level request will be submitted to set up the equipment at Britannia.

Jane Fernyhough
Manager of Heritage and Cultural Services
(4288)

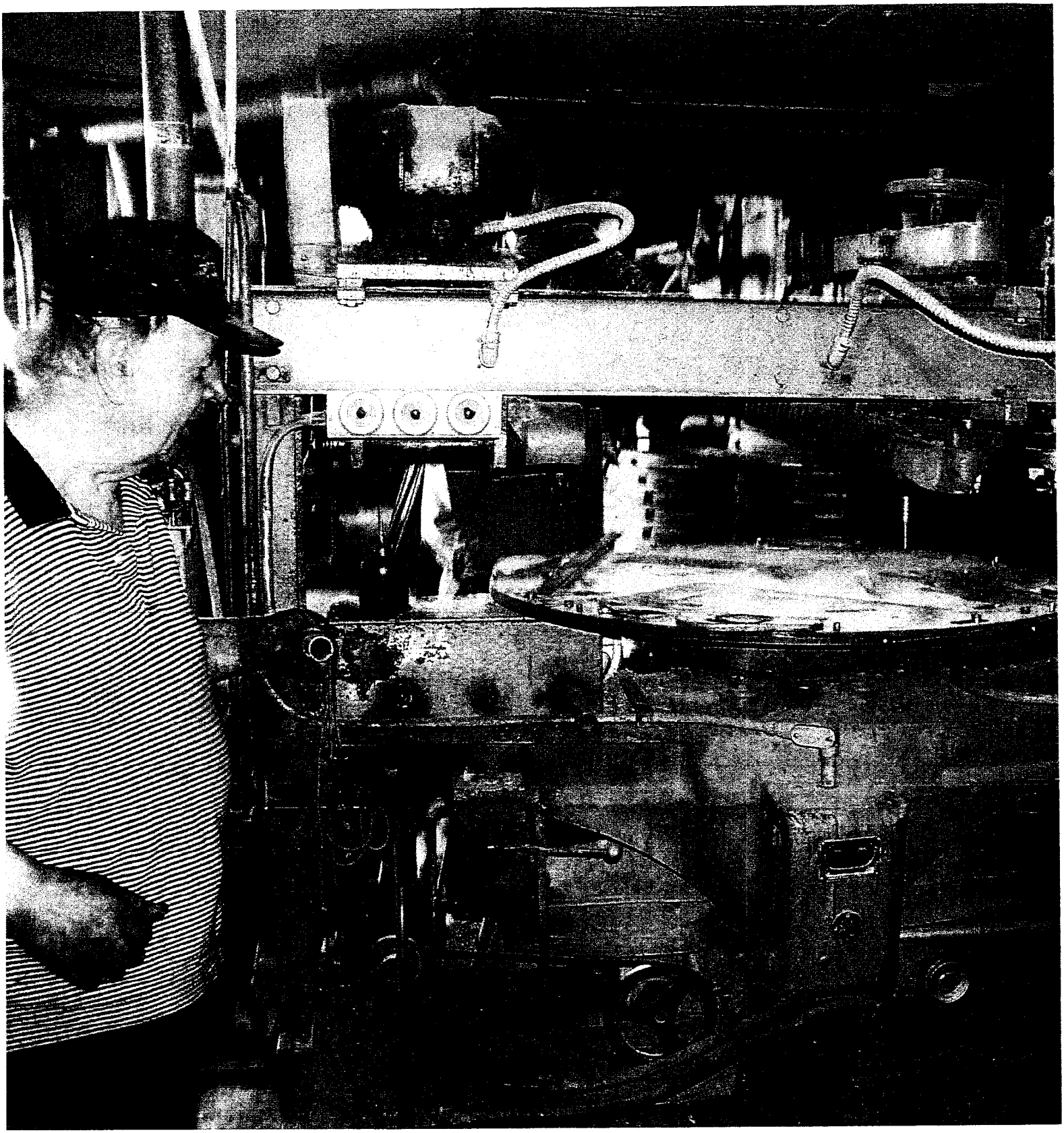
Attachment 1

Photos of Equipment

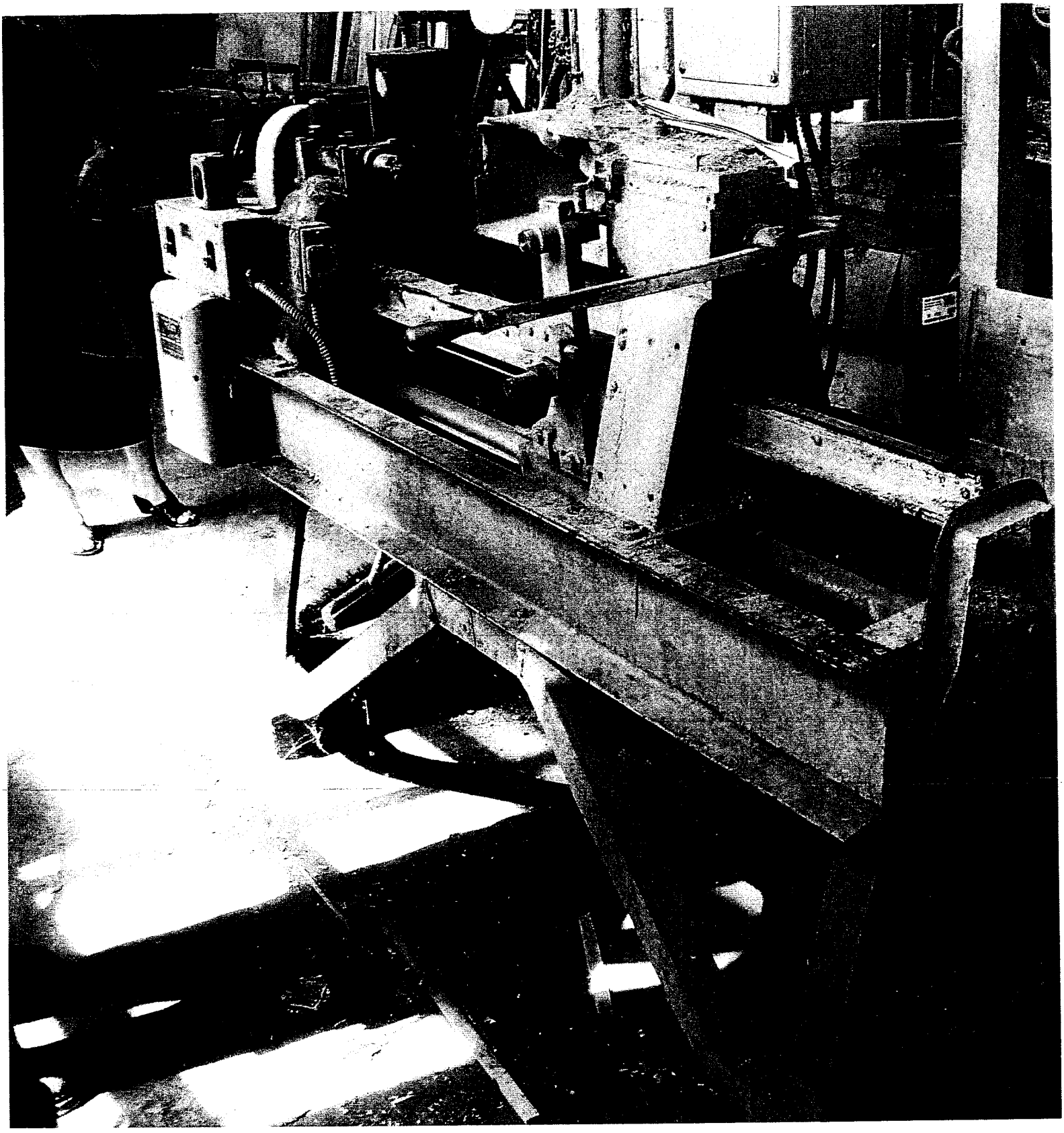
1. Multi Saw
2. Shaper
3. Plane for Spokes
4. Multi Drill
5. Moulding



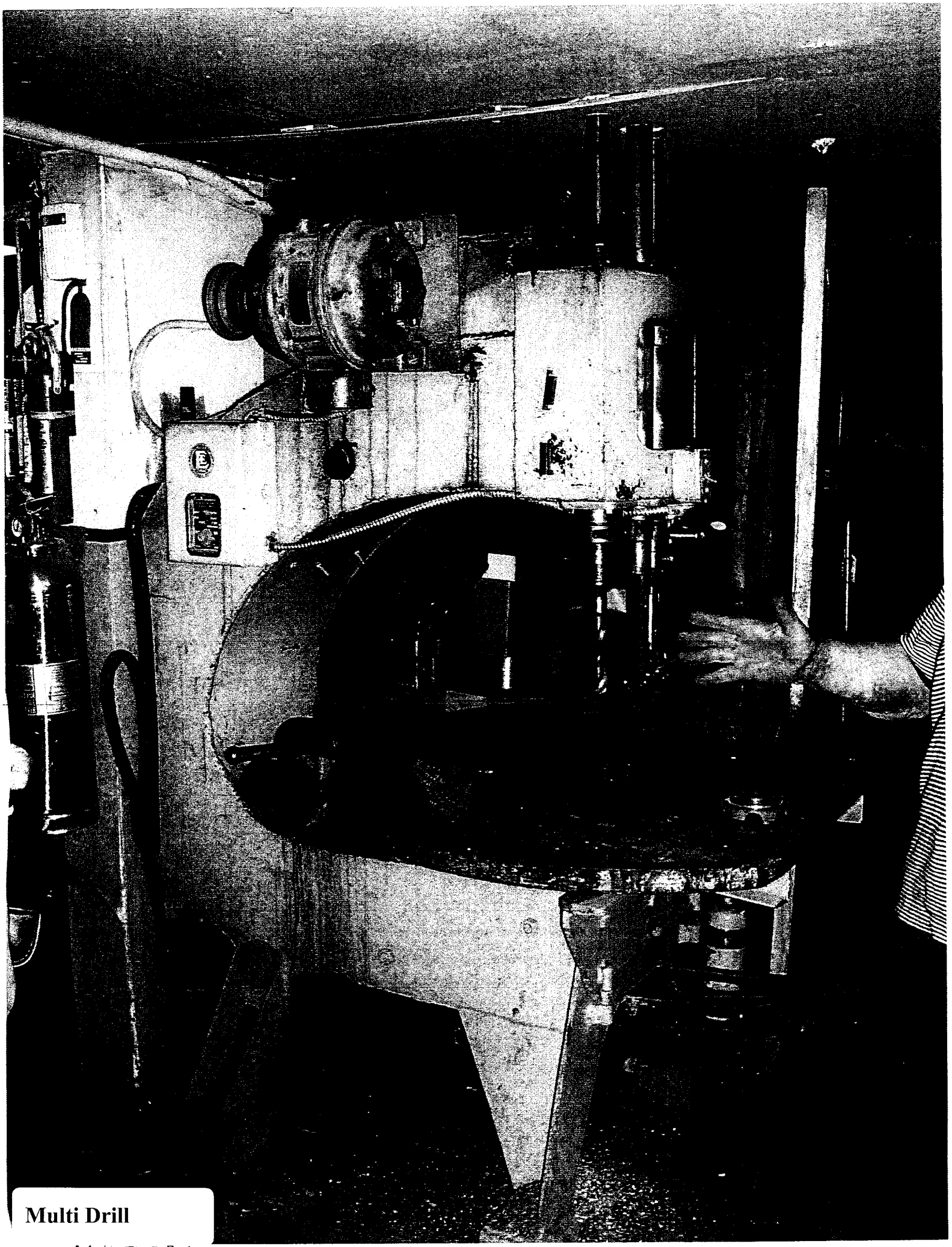
Multi Saw



Shaper



Plane for Spokes



Multi Drill

Moulding

Moulding

Attachment 2

Additional Pieces:

- Circular Sander: Used to smooth out the wheels after they come off the shaper.
- 2 Buffing Machines (One for wheel and one for spindles): After the wheel and spindles have been shaped and sanded they are dipped in polyurethane and then buffed on these machines.
- Aluminium foundry: a smaller companion to the bronze smelter
- Multi-lathe used to grind the freshly cast hubs. This is another one of Jack's inventions. It grinds and shapes two castings...while one is being shaped on the lather the other hub is being set up on the machine. This keeps the process moving along...no down time.
- Large green metal lathe: There is no connection to Lubzinski's collection but this could be collected with a view to sell or trade.
- Press: part of the foundry operations, used to pack sand into the mold boxes and to press the mold into the sand to create the shape of the casting.
- Saw sharpener: for sharpening the saw blades on the saw mill. One of Jack's inventions.
- Washer & tank: part of the foundry operations used to wash the sand from the castings prior to grinding on the multi lathe.
- Compressor with tank: part of the overall equipment used in the operations, not directly connected to any specific part of wheel making process.
- Mahogany and completed and un-completed wheels.

Attachment 3

Britannia Advisory Board: Motion regarding Lubzinski Collection

Whereas the Advisory Board has been made aware of the impending closure of Marine Products Company and the disposition of the tools, materials and equipment historically used in the manufacture/fabrication of wooden ship's wheels in Richmond and,

whereas we would welcome the donation of certain representative tools and equipment to form part of Britannia's collection of marine-industrial artifacts, we do not believe that there would be any value in securing the entire assembled collection of the tools, materials and equipment as we do not believe the full collection, either as a static display or a functioning manufacturing operation would enhance Britannia's ability to meet its goals and objectives as set out in its current business plan;

therefore the Advisory Board wishes to recommend to Council that it take no action in attempting to secure the entire collection of tools, materials and equipment historically used in the manufacture/fabrication of wooden ship's wheels in Richmond, but that if certain representative portions of the collection are offered for donation to Britannia, that Britannia would be in a position to receive them for inclusion in its collection of artifacts.

Attachment 4

Lubzinski Donation

Cost Estimates to Move Equipment

Prep At Britannia:

Prep for First Nations building	$ 1,000
Gate in fence	
Reinforce and install door	
Plywood flooring (15 @ $33.00)	
Prep for Building #9	$ 4,000
Clear space (2 x 8hrs x 5 days)	
Move, sort, organize existing (2 x 8hrs x 5 days)	
Total to prepare Britannia to receive & store	**$ 5,000**

Prep at Lubzinski Site – four primary exhibit pieces:

Prep for removal	
Electrical ($150 per machine)	$ 600
Move (as per Pro Tech)	$ 2,820

Foundry Prep and Move:

Prep for removal	
Electrical	$ 150
Gas (estimate from Ashton)	$ 100
Move (as per Pro Tech)	$ 2,700

Additional Pieces
(circular sander, multi-lathe, press, buffing machines, metal lathe, saw sharpener, aluminium foundry, washer & tank, compressor with tank)

Electrical	$ 300
Gas	$ 100
Move (as per Pro Tech)	$10,520

Saw Mill

Prep for move	$ 600
Move (as per Pro Tech)	$ 3,680

All wheels, unfinished wood products and mahogany stock

Move (as per Pro Tech)	$11,850