

EASTERN



of paper and people...

More than a mill, more than machines . . . more than mortar, bricks, wood, steel and science . . . the art of making better paper lies so much in people . . . people, whose experience and rare instinctive skill add that part of paper for which no substitute can be found.



It is to these people . . . those men and women here at Eastern whose lives have been devoted to upholding their code of quality that this book is respectfully dedicated.

EASTERN CORPORATION
BANGOR, MAINE



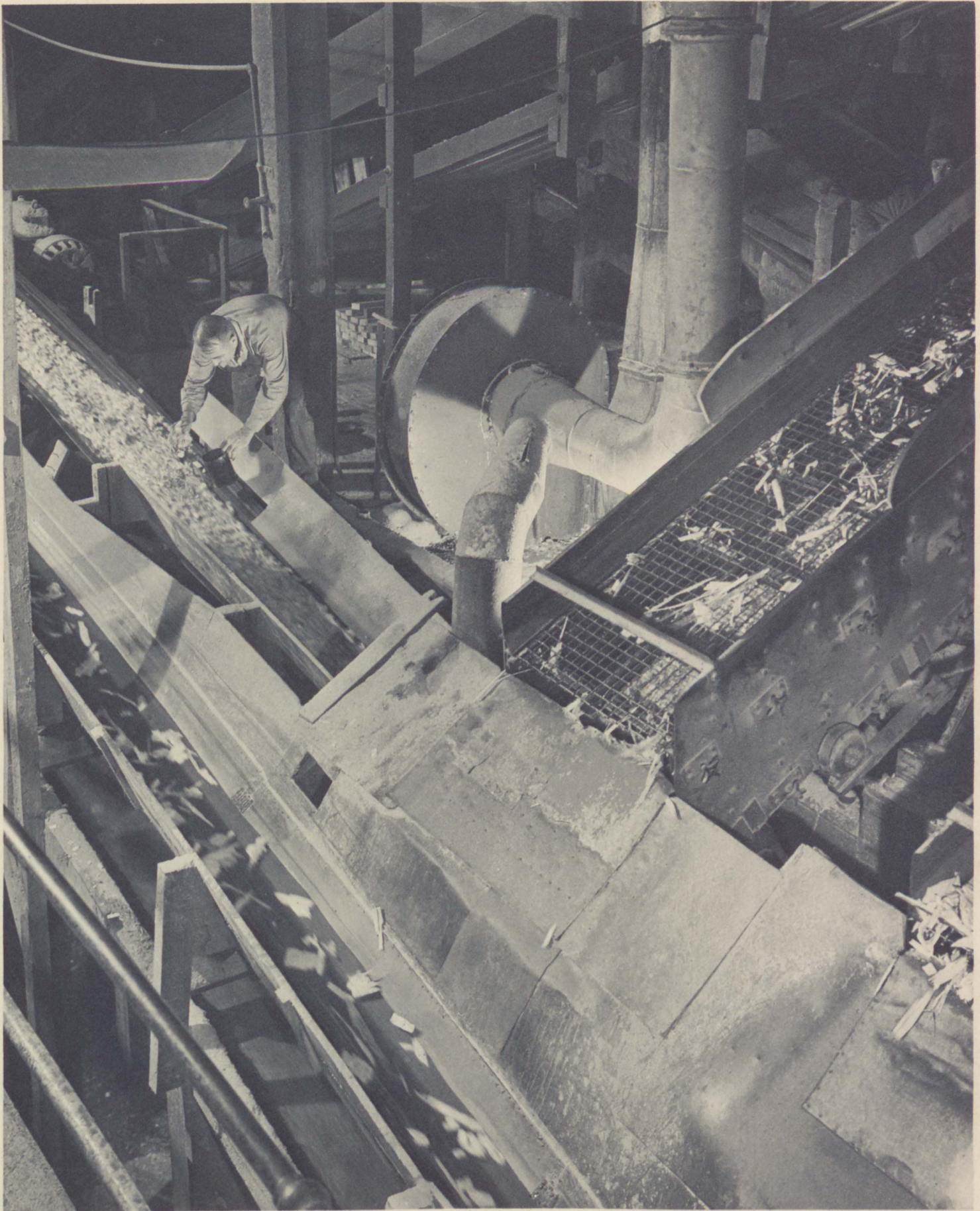
From timberlands to trails; then, from trails to town . . . by road, by rail, by sea, by river, even by horse-drawn sleds in winter when nothing else gets through . . . from the wilds of Maine and Canada, pulpwood, thousands and thousands of cords of it, comes to the Eastern mills.

Pulpwood . . . slow-growing timber Spruce, the finest that can be found
. . . wood that makes pulp of superior strength and better quality is the diet
of Eastern's mills. More than 600,000 acres of this Spruce, owned or
controlled by Eastern, is the source of this supply.

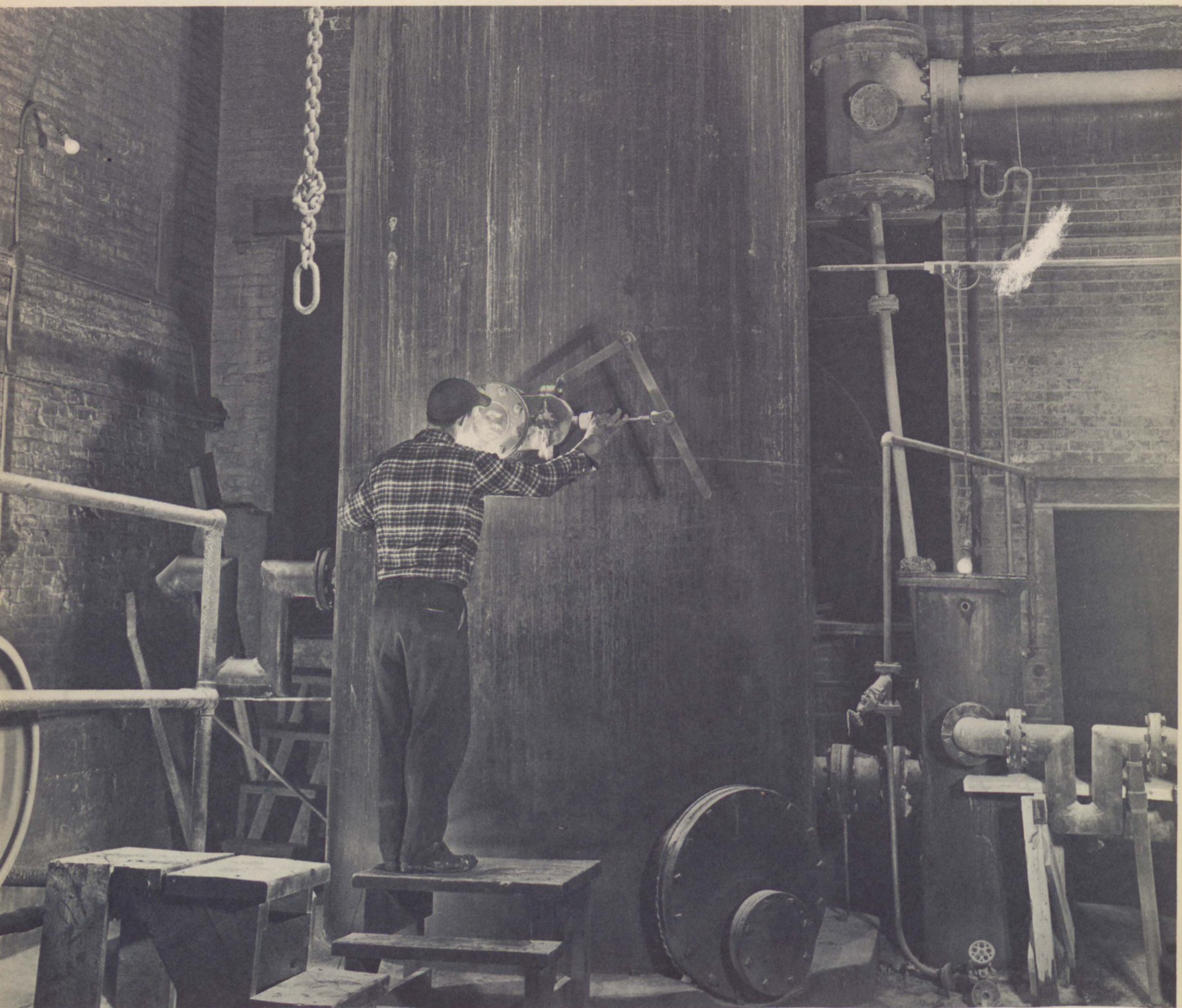




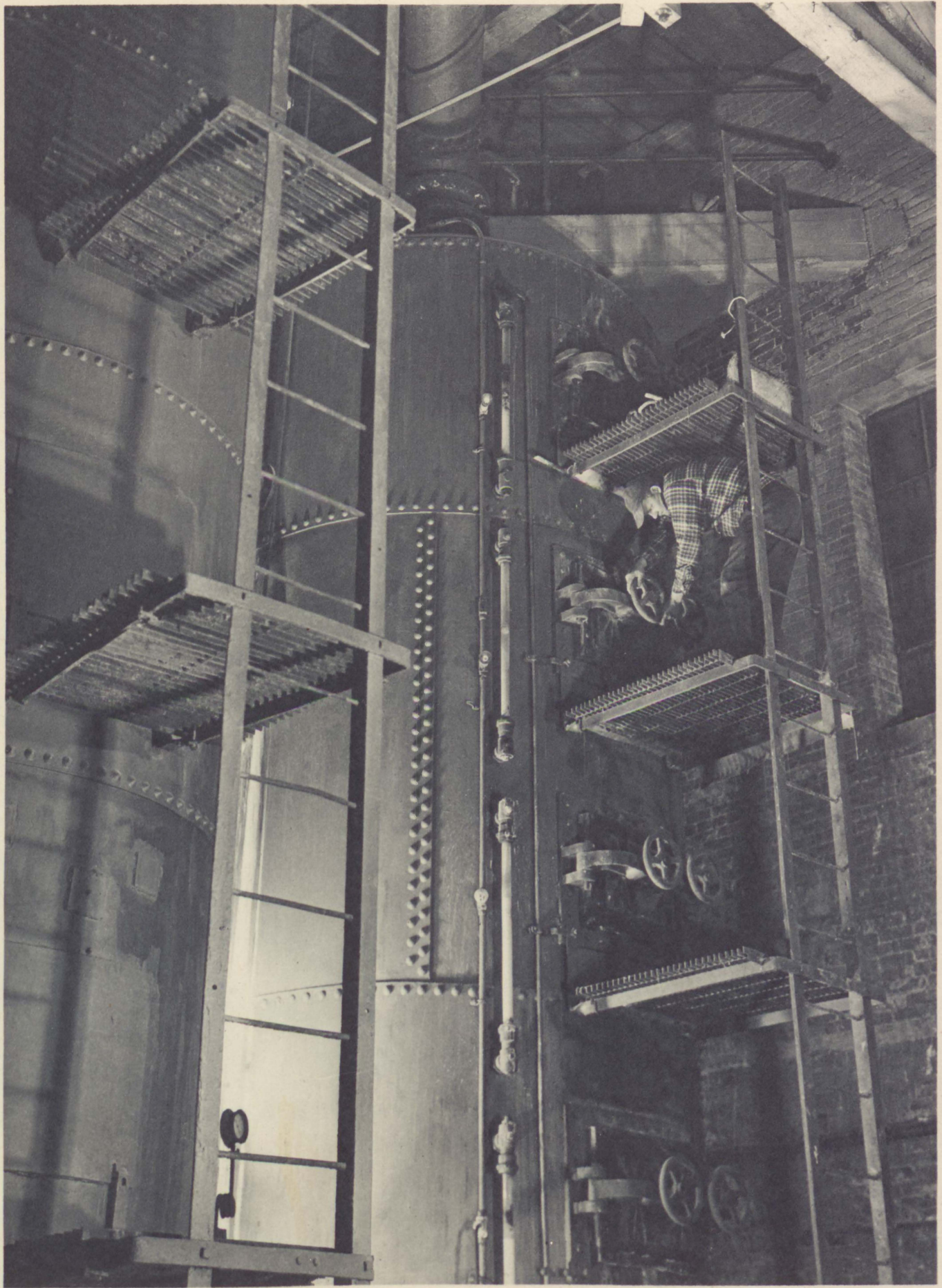
From wood pile to pond; from pond to barker, the log goes on its way. Rather than old style drum barkers, Eastern uses modern hydraulic barkers . . . specially designed machines that clean a log bare without a bit of waste, by streams of water sprayed under tremendous pressure. Typically, this newest type of barker is manned by a veteran, Henry Therrio, thirty-one years with Eastern.



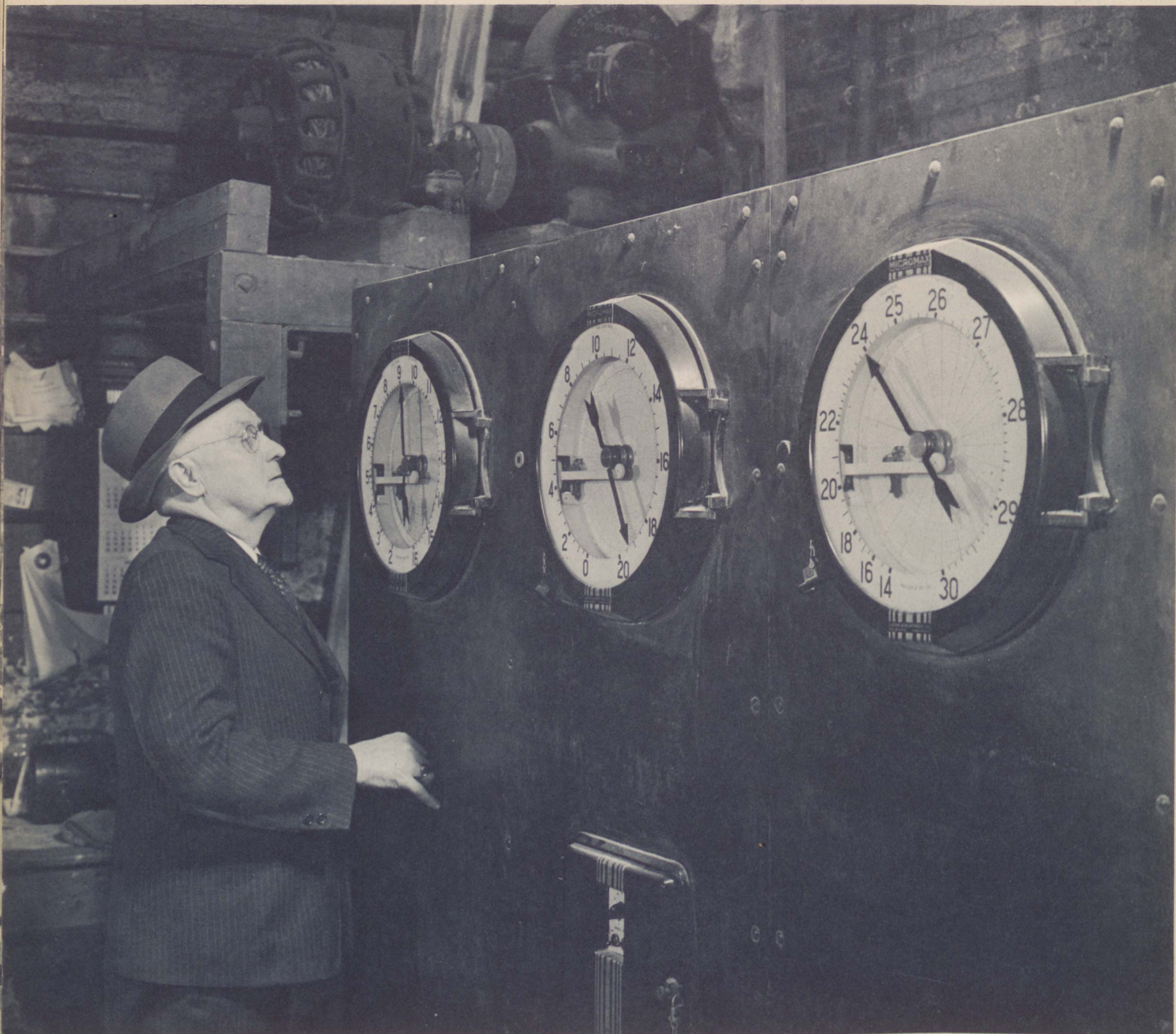
The clean, smooth logs are cut into chips by a huge chipper with ten revolving knife blades. The chips are then moved along to cook. And the trained and careful eyes of Octave Sucey watch those chips as they travel up the conveyor. Chips must be a pre-determined size and it's Sucey's job to see that batches of chips too large for uniform cooking are rejected and returned for reprocessing.



The color of the flame in the sulphur burner is a quality guide for acid in the digester cook. Fourteen years at Eastern have given Bob West the particular skill to watch that flame and tell without question when the color is absolutely correct.

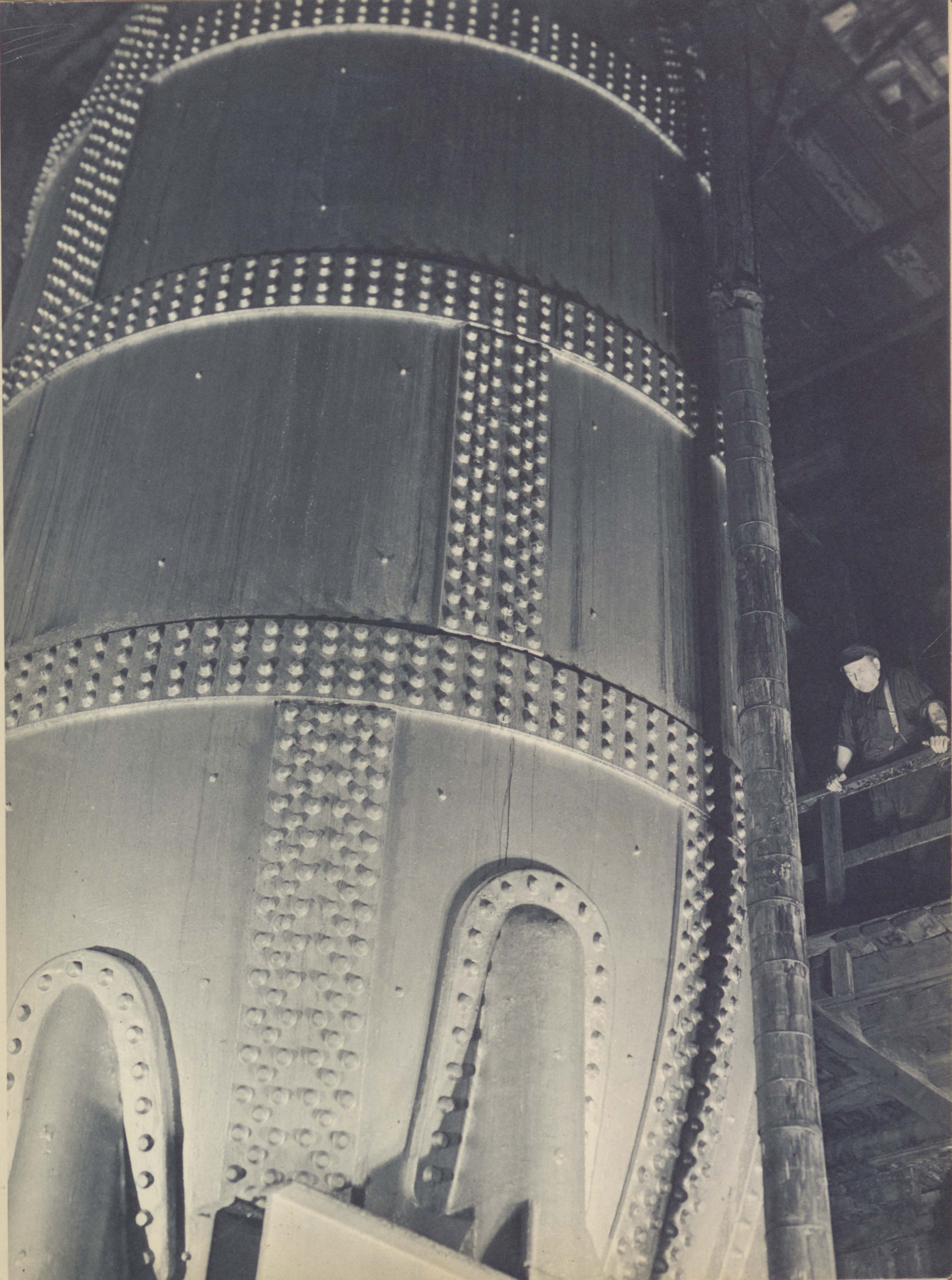


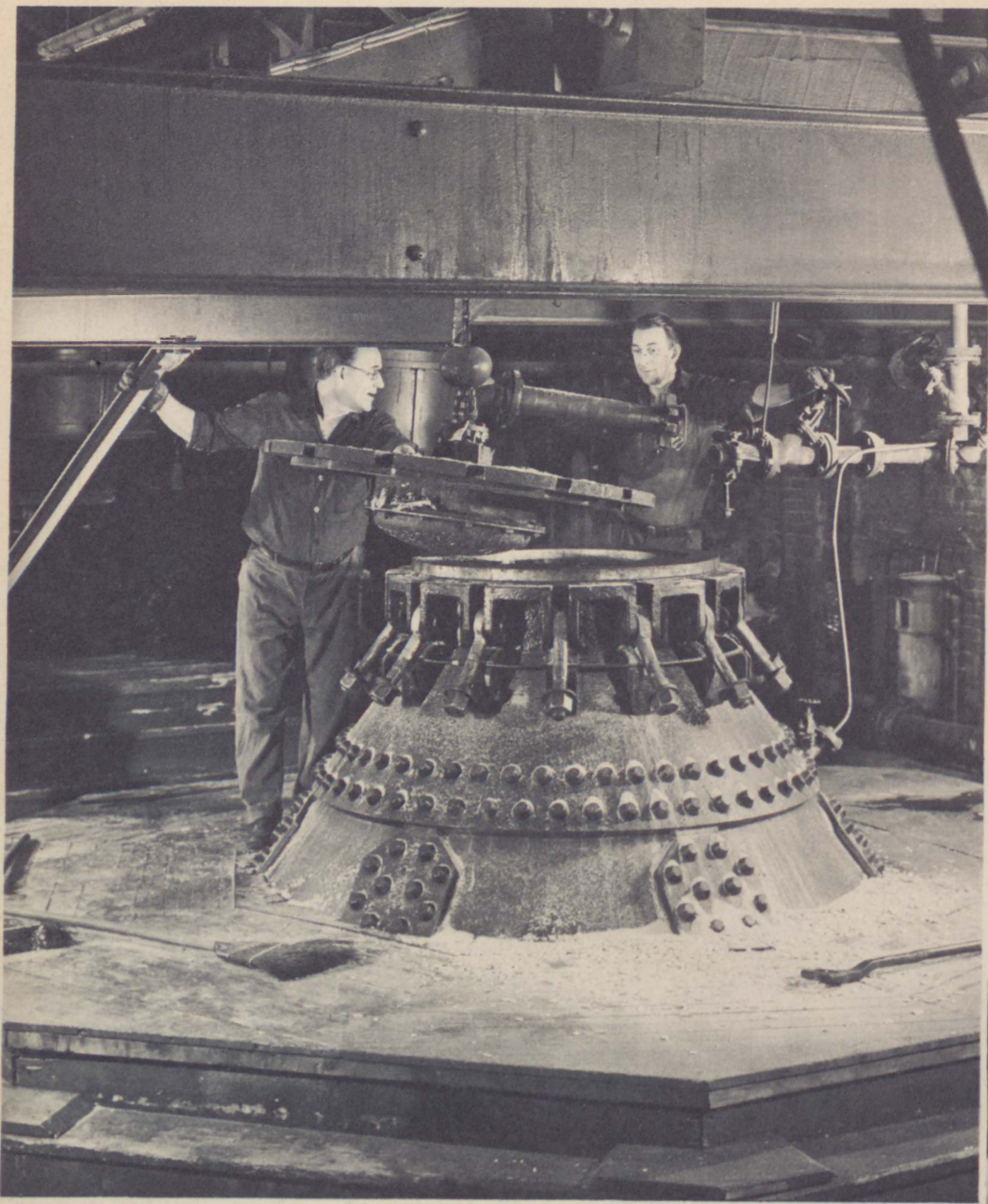
Bob West, acid maker, tightens vacuum sealing door on acid tower, where sulphite cook liquor is made. Preparation of the bisulphite solution, used in cooking chips, requires expert handling and constant supervision. Slight variations in temperature, air pressure, or in the quantities of chemicals are sufficient to cause considerable damage to both the pulp and equipment.



Modern automatic recording instruments aid the digester acid maker in following predetermined standards. The center dial records the composition of the sulphur dioxide gas being formed by the sulphur burner. The dials on each side show temperature readings . . . one before and the other after the cooling process. William Kane, Manager of Eastern's Pulp Manufacturing is checking the recordings. He has forty-five years of pulp-making experience to guide him.

In giant digesters (one is shown with Arthur Andrews, a quarter-century Eastern veteran, on opposite page), the binder materials . . . resins, lignins and other encrusting substances . . . are separated from wood fibres or cellulose by means of a pressure cooking process.

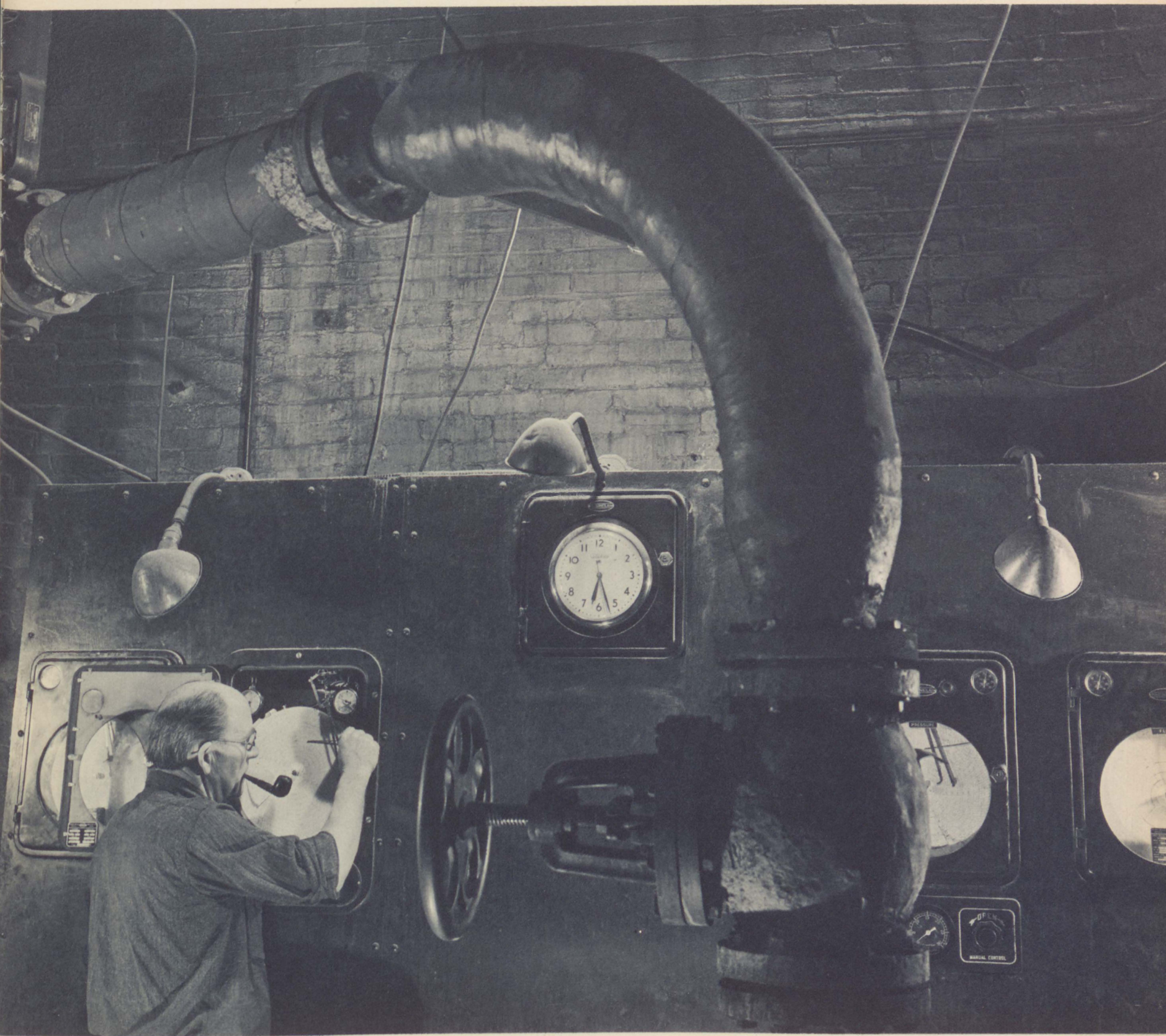




Tom Wight and his nephew Elliot clamp down the head of the digester after pouring in a twenty-six cord fill of pulpwood chips from chip loft above.

The cooking process over . . . the wood fibres freed from binder materials . . . the twenty-six cords of cooked pulp are blown from the bottom of the digester into a "blow-pit." In less than twenty minutes the digester is emptied. Bob Snodgrass then closes a valve . . . and within two or three minutes, the digester is ready for another cook. Eastern has eleven of these digesters working "round the clock."



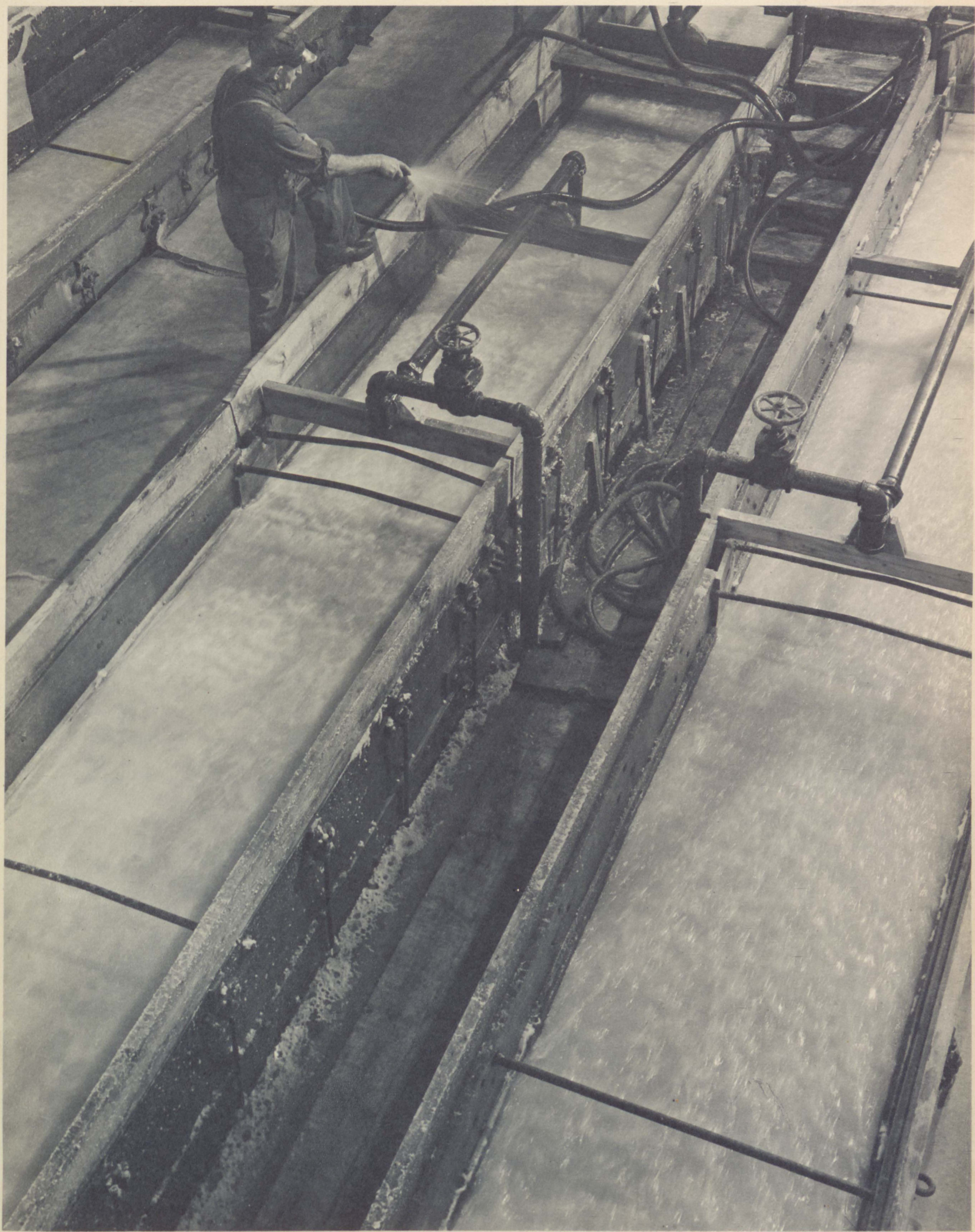


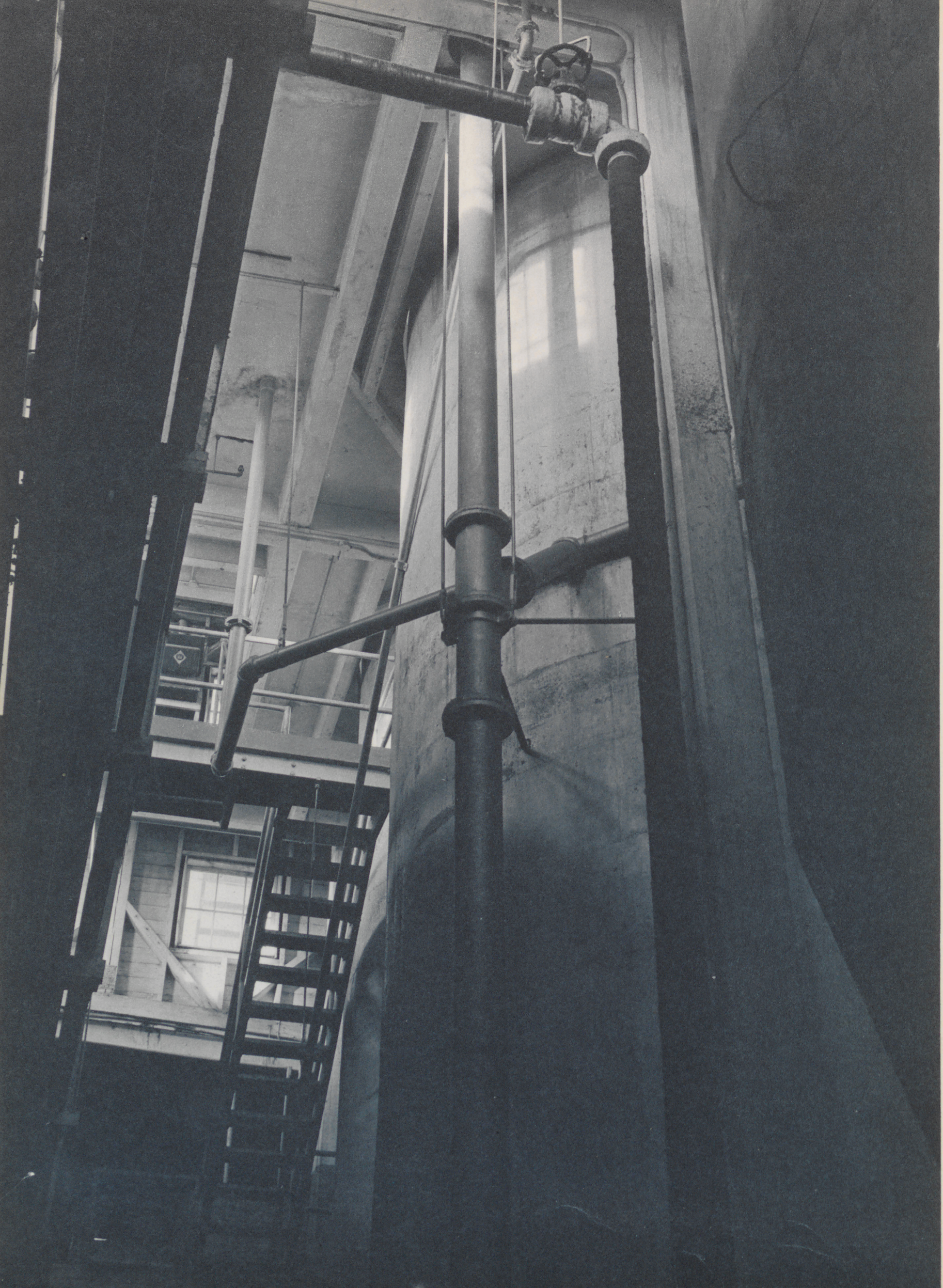
Twenty-four-hour-a-day operation requires twenty-four-hour-a-day supervision. And continuous records of each continuous process must be kept. Here, Tom Wight checks automatic recordings of pressure and flow in relation to a recent digester cook.



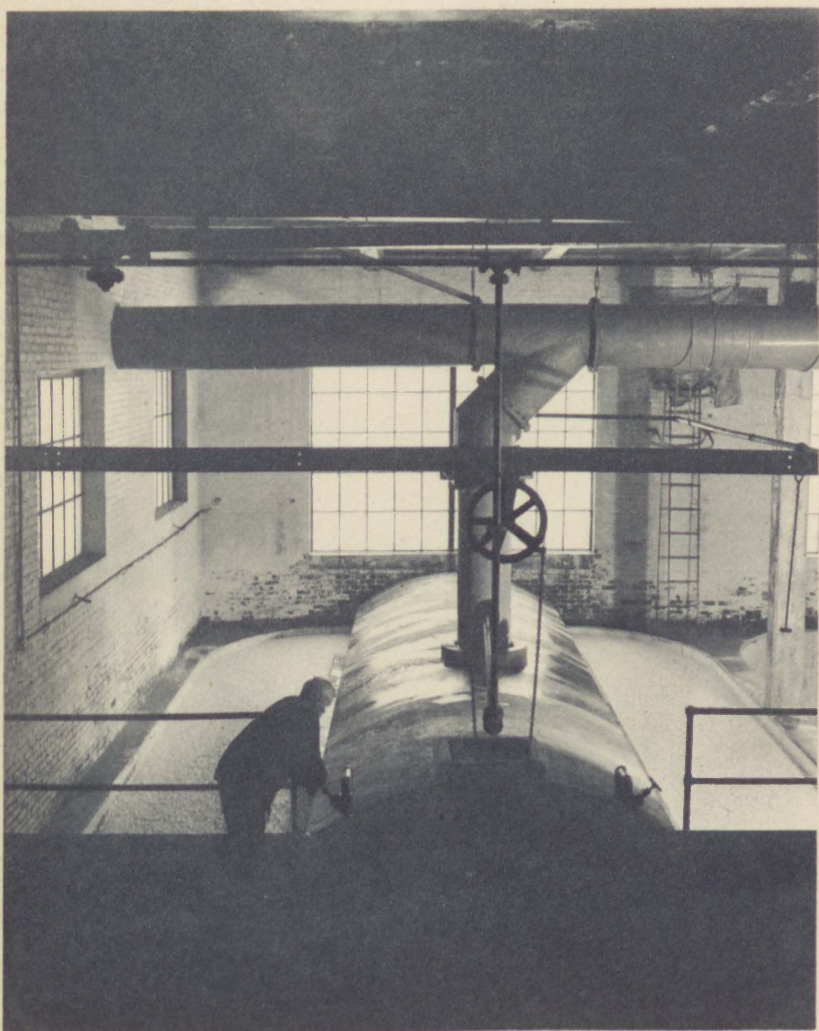
From the digester “blow-pit,” the cooked pulp stock goes to the knotters, for the elimination of knots¹⁾ and other large objects that escaped detection before the cook. And from the knotters the pulp flows onto the riffles for additional careful cleaning. Purified, filtered water . . . 26,000,000 gallons of the clearest lake water . . . is used each day for processes like these at Eastern.

From the riffles, the pulp moves on to graduated bed plate screens (shown on opposite page) for a “screening out” process which removes sand, bark and other foreign substances that might have escaped the riffles.





A preliminary mild bleaching action in primary bleaching tanks (shown on opposite page) is followed by treatment in the Bellmer pulp bleaching tank below. This last operation is a thickening process which removes some of the water and all final traces of acid from the pulp.



In this white tile lined Belmer tank the pulp receives the final bleaching which gives Eastern's paper the brilliant white for which it is famous. This important operation is in the competent hands of Charles Barry, one of Eastern's many old timers.



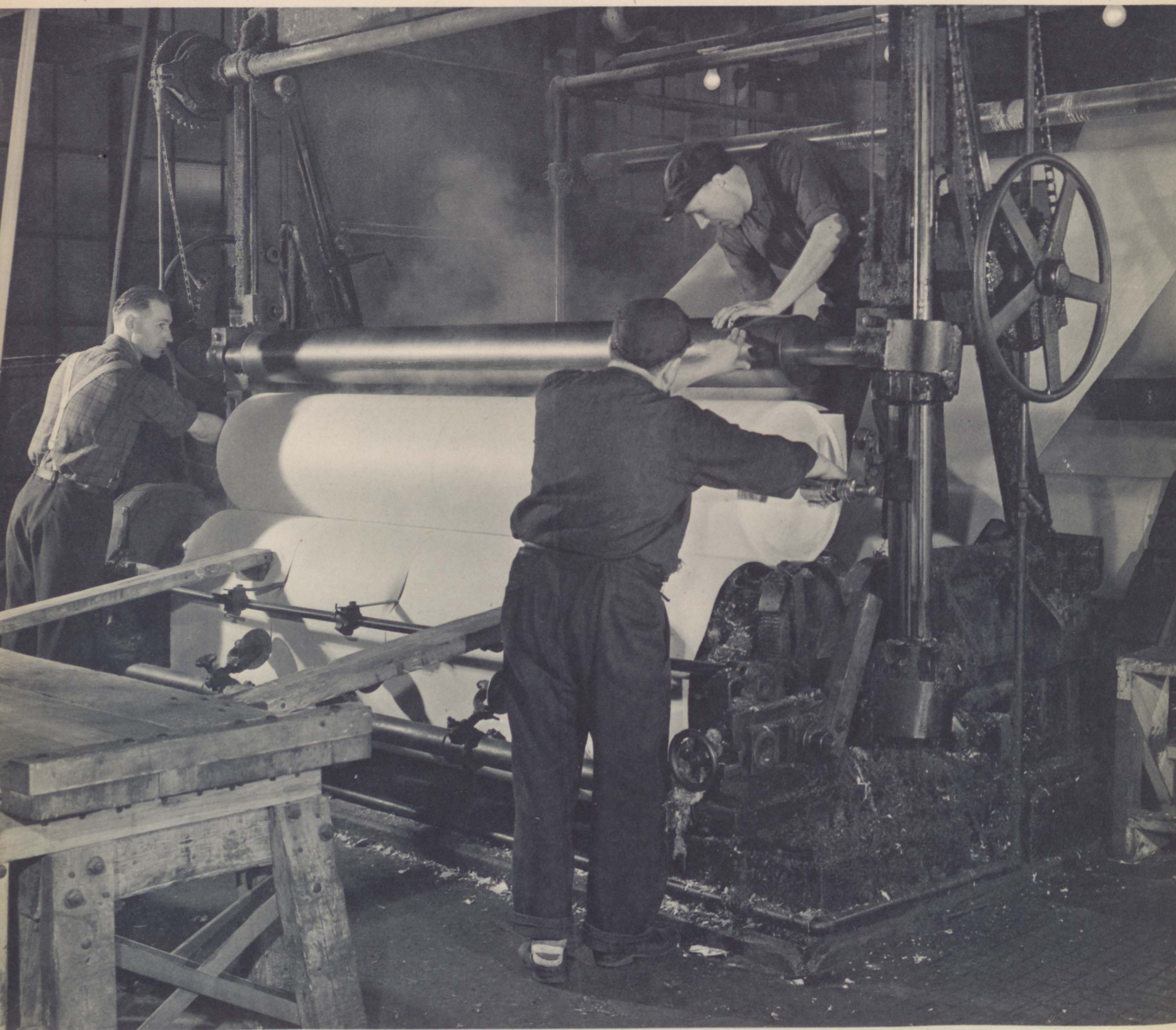
After bleaching, the bleach liquor is removed in this washer by means of pure water which flows through a revolving stainless steel screen. The screen retains the pulp but permits the passage of the water carrying away the bleaching solution.



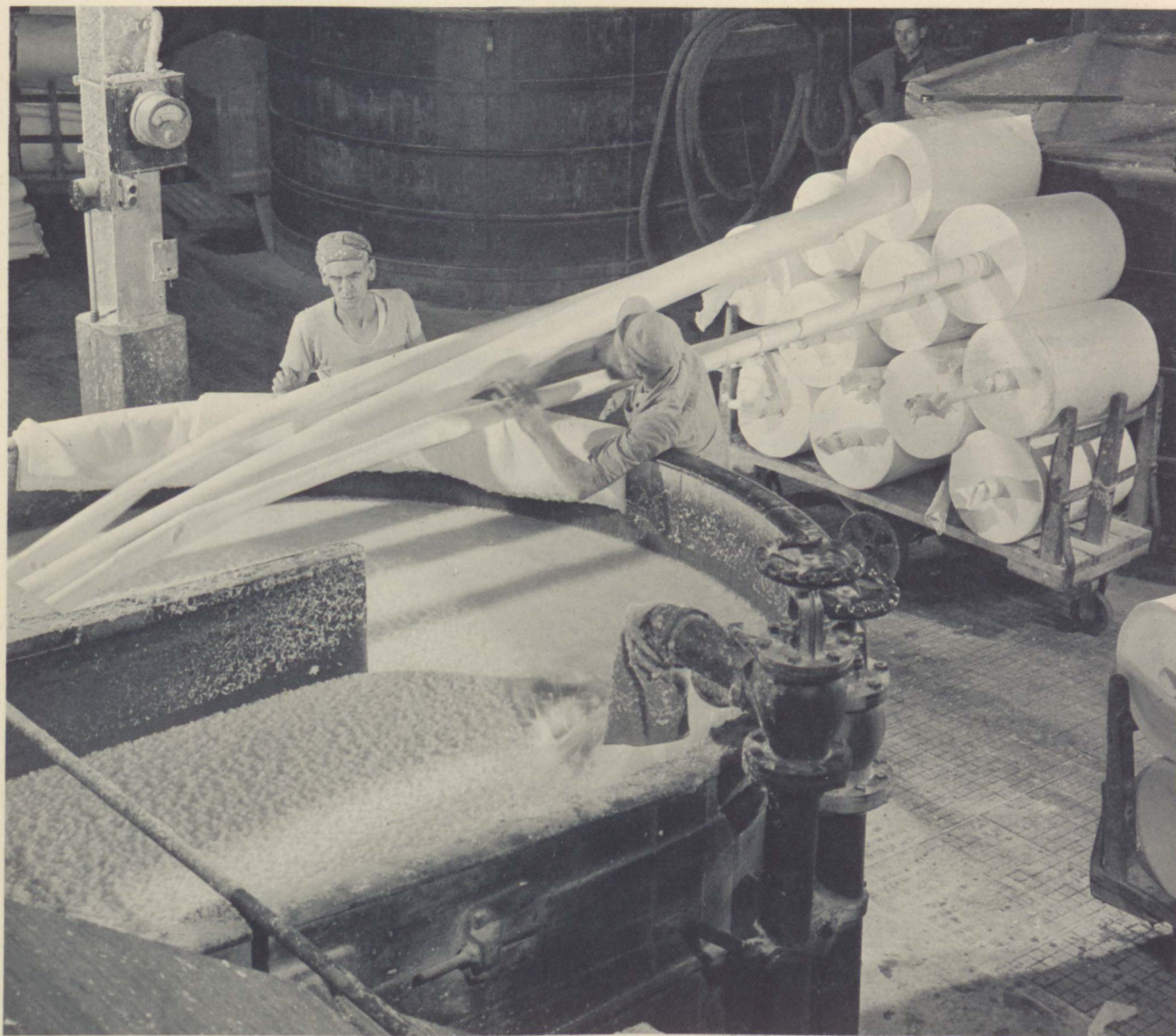
From the head box of the pulp drying machine . . . similar to Fourdrinier paper machines except for its extra heavy construction capable of handling the heavy weights and thicknesses of pulp . . . the pulpy, milk-like fluid travels down the wire. And again, in keeping with Eastern's character, experience is right at hand . . . the watchful, careful attention of a twenty-seven-year Eastern man, Earl Strang.



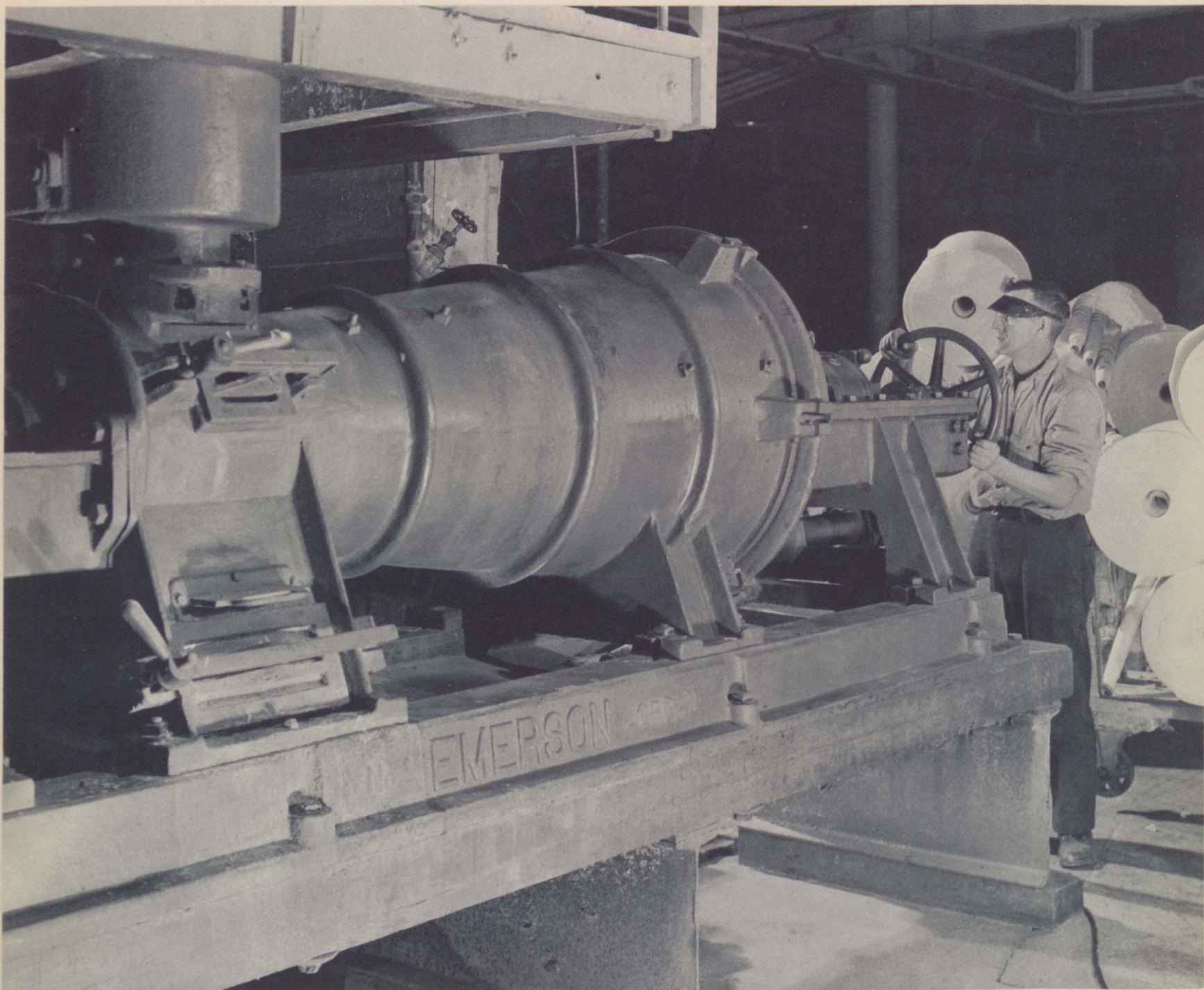
Isaac Staples keeps a "weather-eye" on the web of pulp traveling over precision drying cylinders. This is one of the final stages of making pulp at Eastern's mill . . . quality pulp for all of Eastern's fine grades of paper . . . quality pulp which also serves the needs of other industries . . . quality pulp in staggering quantities which served our government in war.



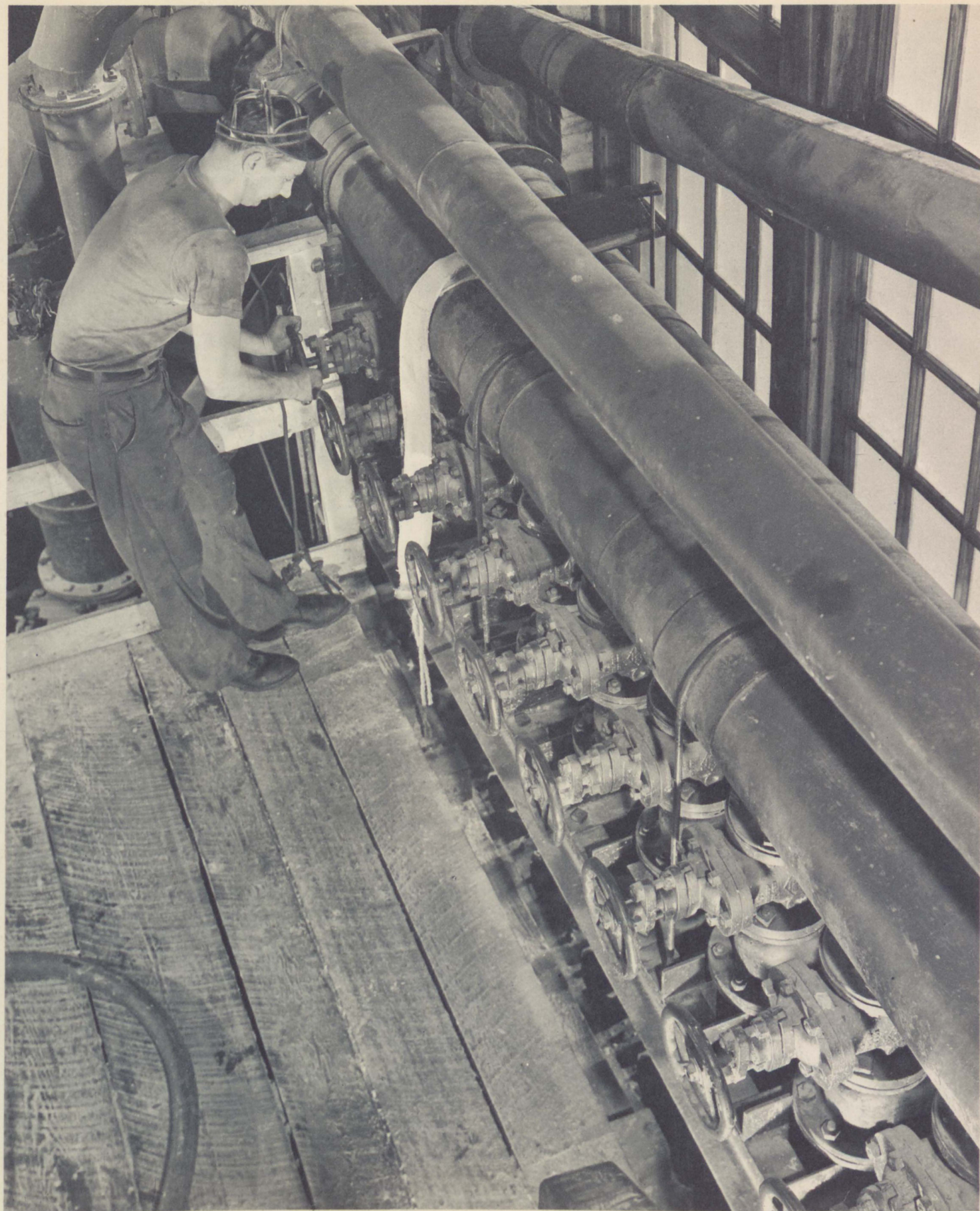
Finally—the job of slitting and rewinding pulp into dry rolls for shipment to converters. It's a job that calls for teamwork . . . for men who act with clockwork precision . . . Carl Wedin, Bernard Hodgins and Lewis Weinstein. In eleven minutes flat a large roll is slit and rewound under even, uniform tension, then removed to be taken away



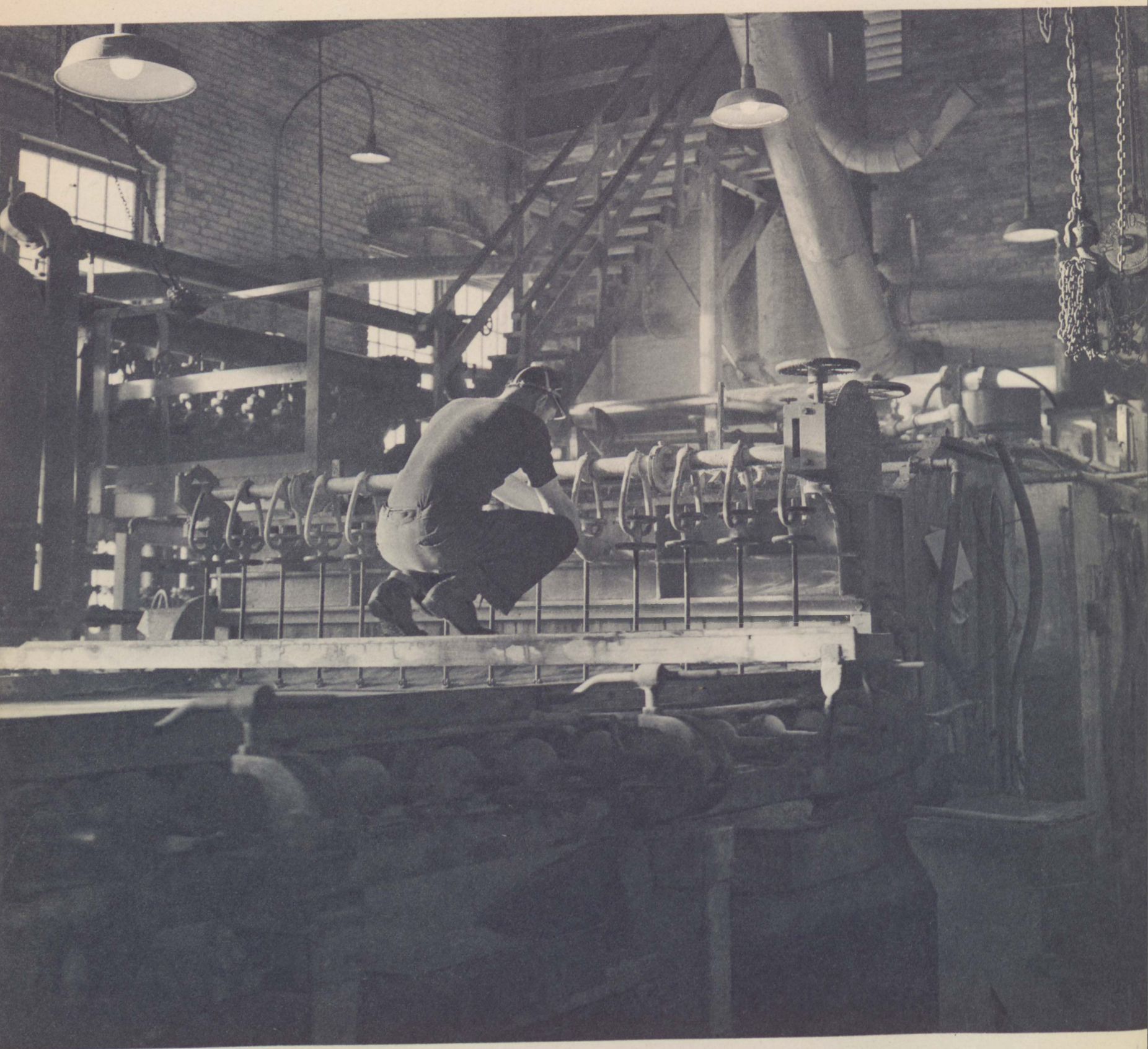
The first step in making paper . . . quality paper at Eastern. The pulp in various forms is fed to the beater. Here, ends of dry pulp rolls are placed by Harry Hayden and Amariah C. DeBeck in contact with the revolving beater roll which pulls the pulp around and breaks it into fibres. In the beating process, the cellulose fibres of pulp are drawn and brushed to a length adapted for the weight and quality of the paper to be made and are also rendered flexible by hydration. Important as this step is, no automatic device has been found that can determine the proper condition of the pulp stock more accurately than the sensitive finger tips of experienced beater men.



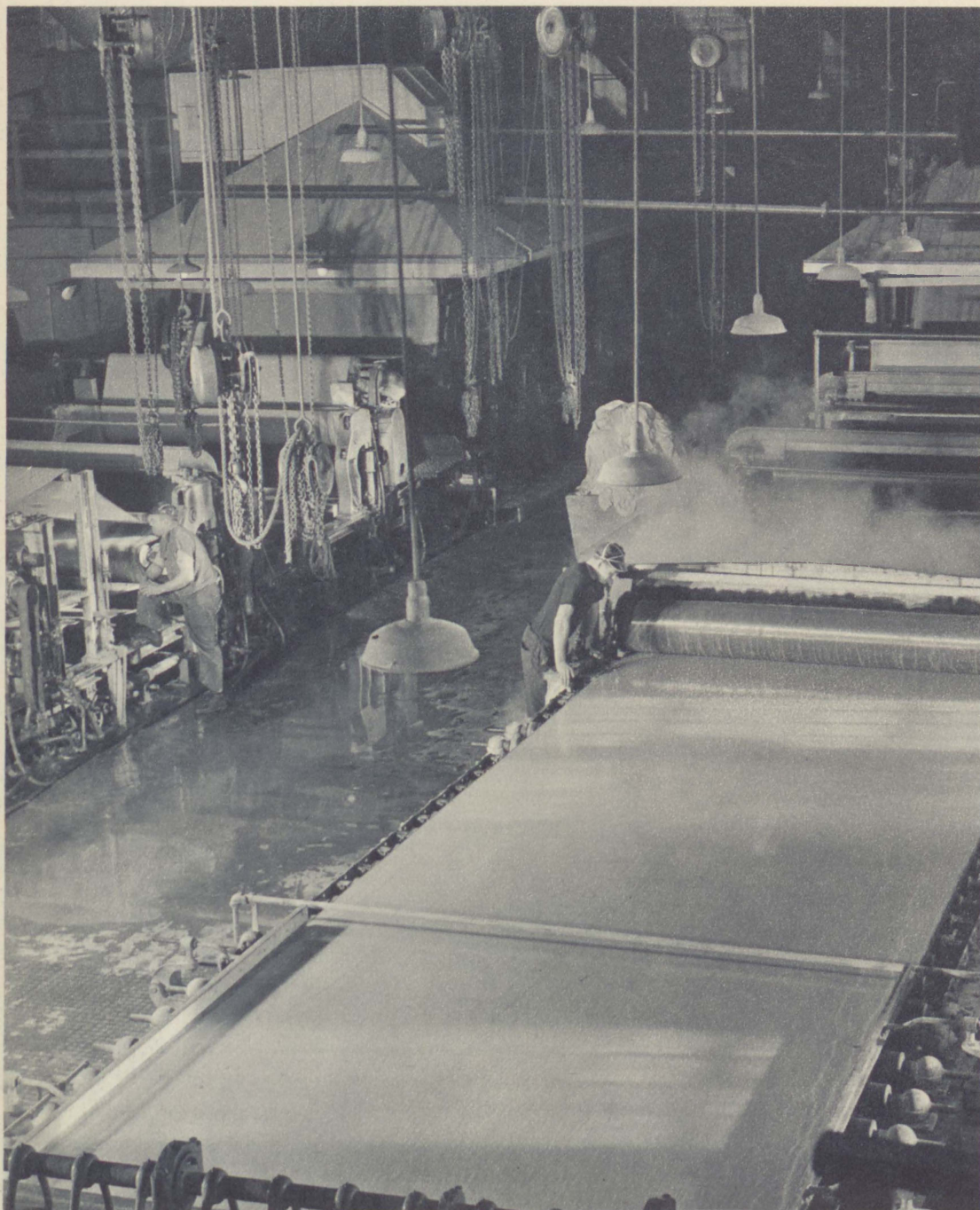
With Charles Stewart at the controls, wood pulp fibres are reduced to uniform length by the Jordan. This assures the proper formation of the paper. Variations in the character of the fibres are corrected here also and clusters of fibres which might clog the screens or mar the paper are separated and distributed here. The Jordan refining engine is extremely important to the production of uniform paper.



For extra refinement in paper quality . . . to remove, by centrifugal action, any traces of sand, dirt and other heavy substances from the pulp stock . . . Eastern Corporation was one of the first to use the Vortrap, shown above with Harold Tenan at the valves. This operation occurs just ahead of the final screening which takes out the lighter dirt before the stock flows into the head box of the paper machine.



Here is an assignment that requires extraordinary perception and skill. On a paper machine, it is George Buraby's job to adjust the slice properly. The slice, a dam-like device has an important bearing on the uniform thickness of the paper. It is made of segmented metal partitions to allow for delicate adjustments in the flow of stock across the width of the wire . . . almost nine feet.

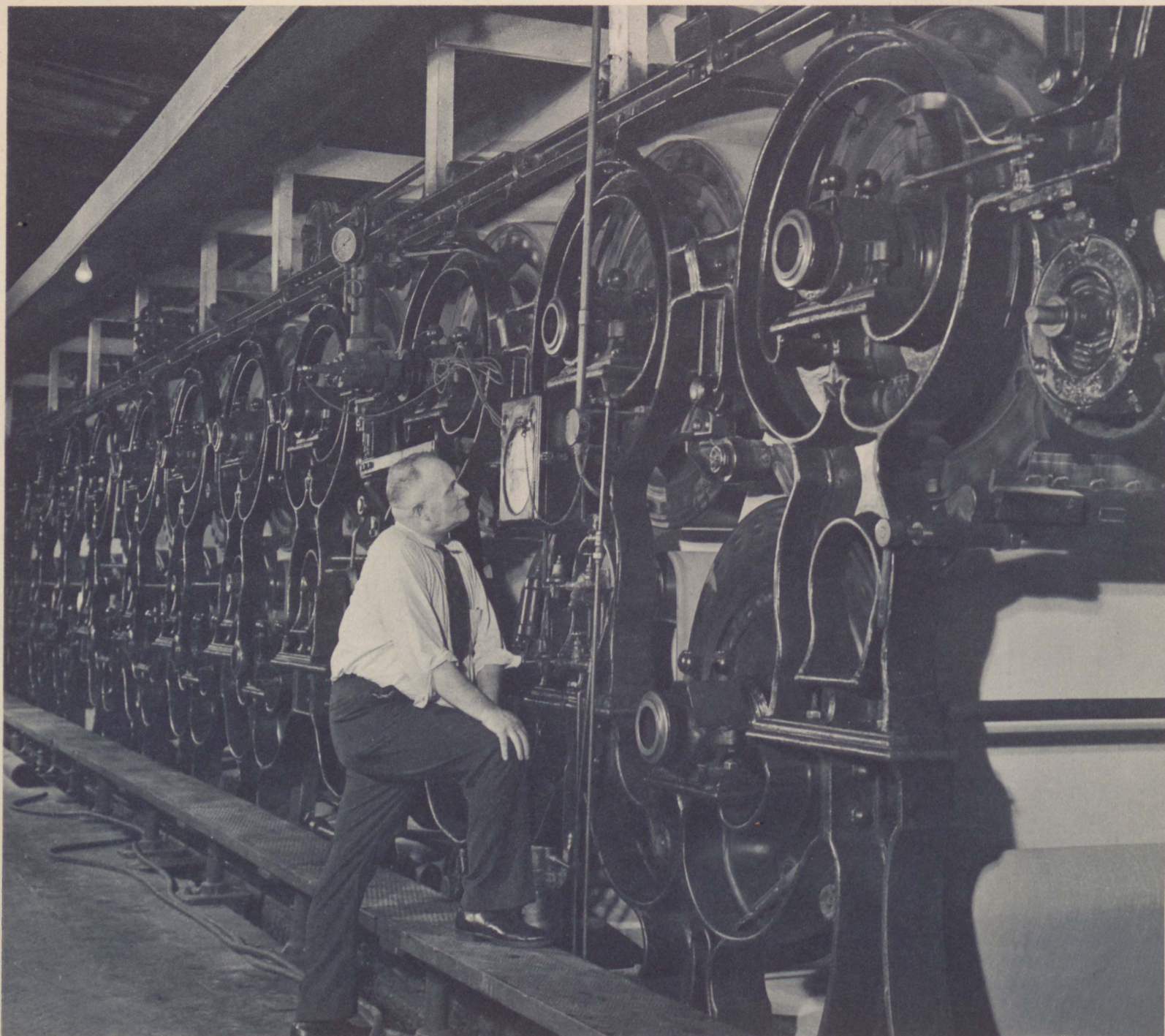


Rivers of paper roll on . . . through two of Eastern's paper-making machines. From the stock pond in the foreground a steady stream of stock flows through the slice, onto the Fourdrinier wire and down under the Dandy Roll near the far end of the web. As the web moves on . . . as the paper rapidly takes form . . . skilled machine tenders, such as George A. Buraby and Merle E. Clay, watch to be sure that the fibres are felting properly, the web is forming evenly, the water is being removed in the right amount in addition to many other duties all concerned with quality controls.

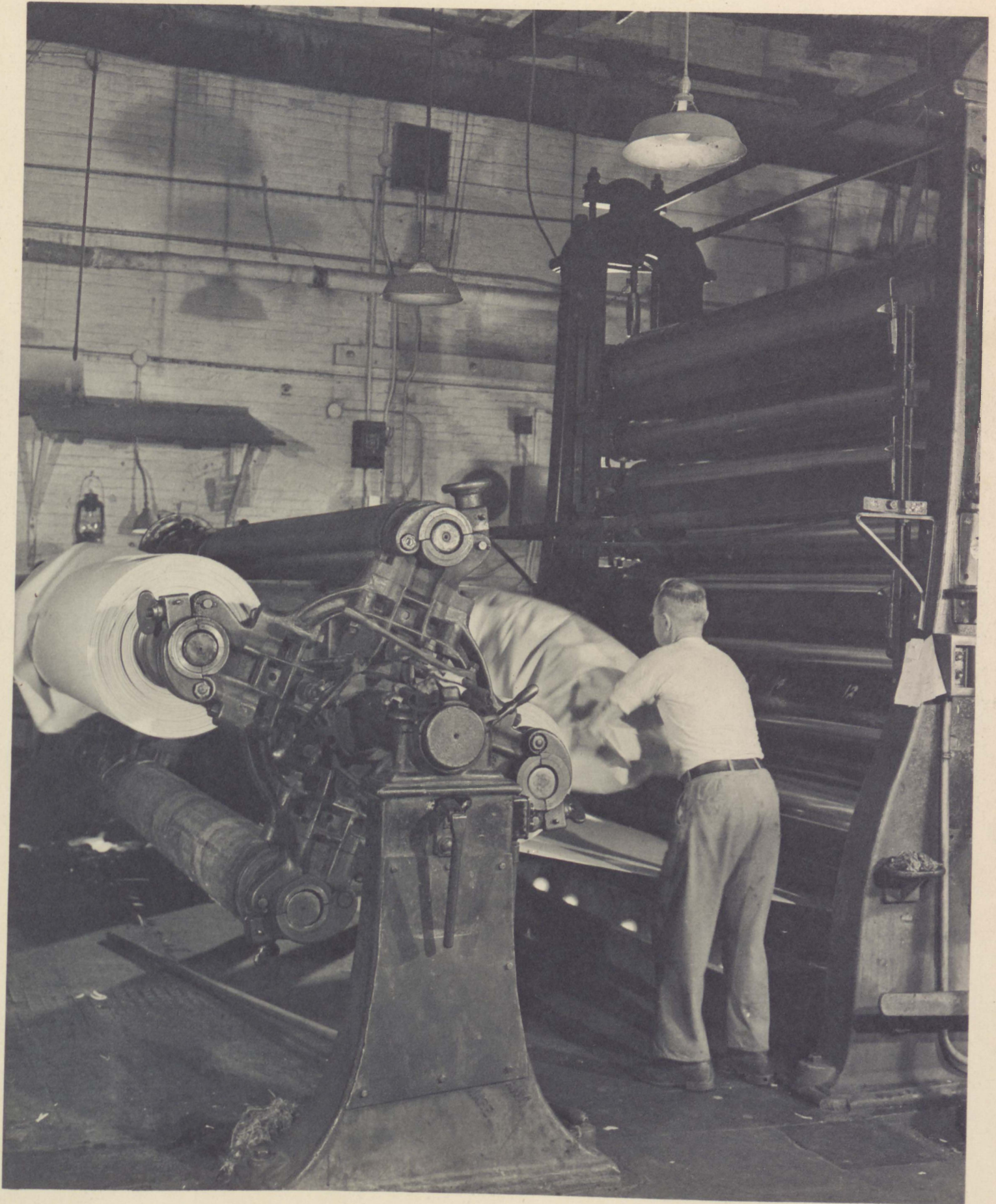




More important than machines are the men who operate the machines. In them Eastern is rich. Bob McLaughlin, left, scans the web of paper to see that it forms properly as to uniformity, weight, strength and quality. Jim Herbert, above, watches carefully the important tub or surface sizing. Both of these men have been on their jobs since the end of World War I.

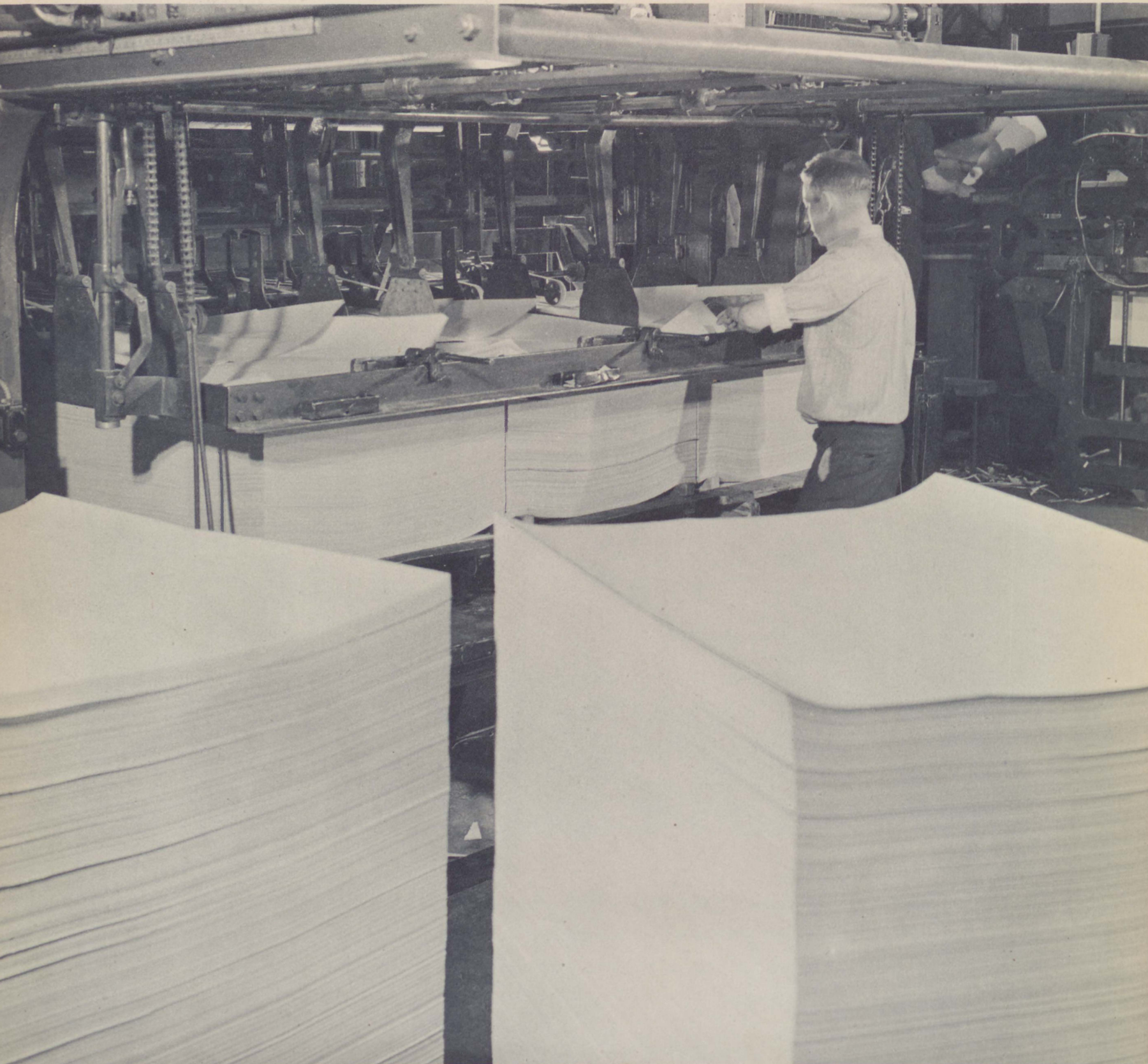


Paper reaching the huge, steam-filled dryer rolls contains about sixty-two per cent moisture content. To reduce this moisture content to a controlled four and one-half to six per cent without getting curled or cockled edges, calls for close and competent supervision. Harry King, in charge of paper making machines at one of Eastern's mills, checks temperature readings. He has forty-two years of paper-making experience to back his judgment.



Quick change artists. John Betters with partner not in view, change a reel on the dry end of the machine without interrupting the flow of paper coming from the calender stacks at the rate of 600 feet per minute . . . a spectacular act, one that requires perfect timing.

Reels of paper are converted into sheets of whatever size is required. Sheets are automatically counted and ream marked. Harold Coulter does his checking at the front end of the multiple-roll overlapping layboy cutter to see that no torn or creased sheets are coming off the machine.





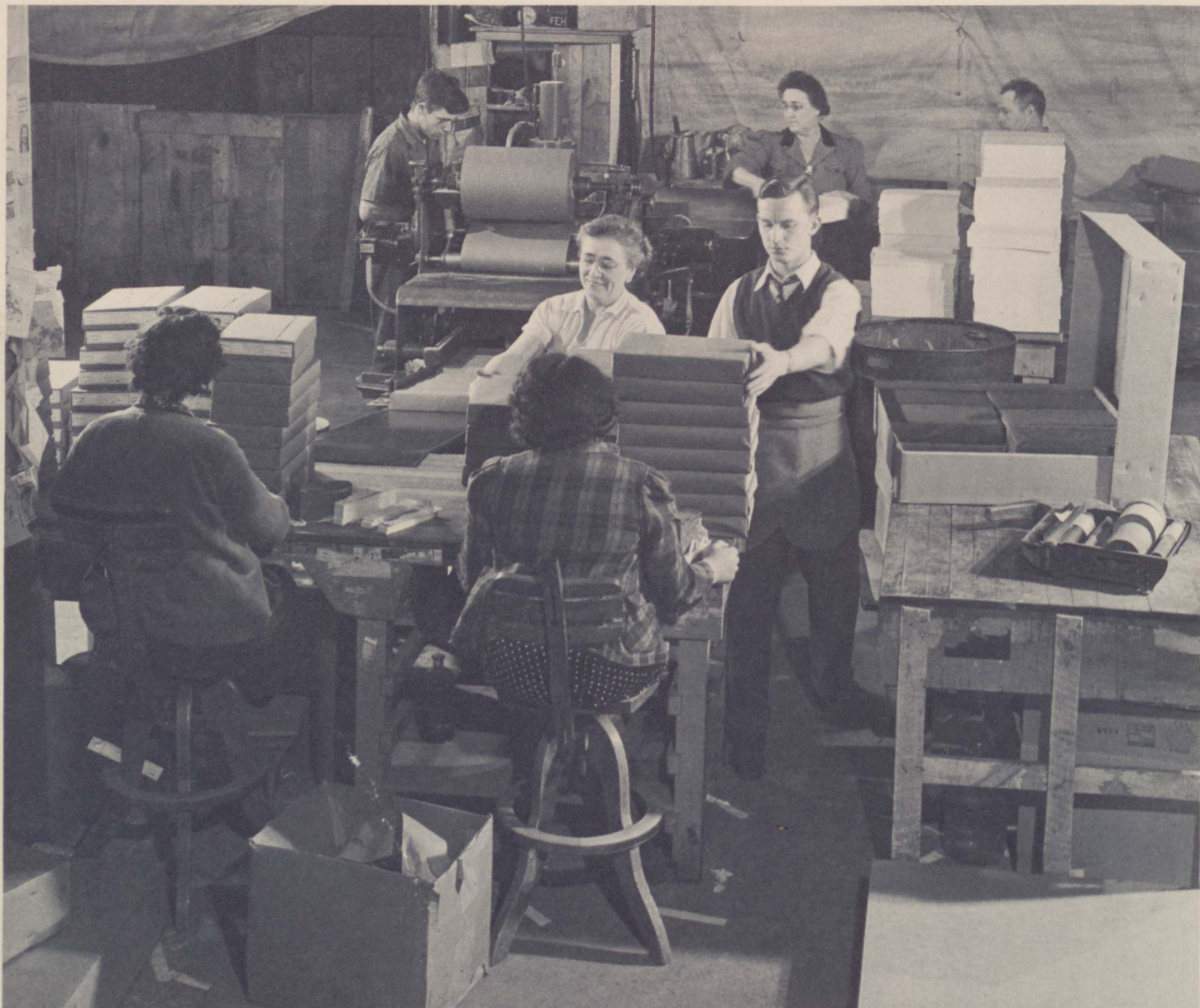
After cutting, each ream is trimmed . . . *precision* trimmed. To trim a ream of paper, twenty-two by thirty-four inches, and then stack it without disturbing a sheet . . . as Dan Murchison does . . . is no job for a novice.



Women, too, play a part in maintaining Eastern Quality. Twenty-five years with Eastern have trained the eyes of Mrs. Noyes, a hand sorter, to spot sheets that are torn, creased or have other imperfections. Such paper, below Eastern Standards, is discarded.

Although most Eastern Paper is counted automatically, some of it is still counted by hand. Mary Breen, on opposite page, fans out sheets with her left hand and counts sheets in multiples of four with the fingers of her right hand. The accuracy and speed of such experienced counters is amazing.





In the Finishing Department, cut-size or typewriter-size paper is wrapped with Eastern Quality sealed into every package. The machine in the background is one of the latest automatic packaging devices which ingeniously wraps and seals a ream of paper every five seconds of the working day.

The lightning stroke of Archie Davitt's hand seals large-size reams of paper with true, machine-like precision. Twenty-six years at Eastern is his record of faithful service.





The paper is made; the paper is wrapped; then labels are applied to the package. For ten years Mrs. DeGrasse has attached those easily identified labels that are the mark of excellent quality.



The finishing touch is added by George Fish and Leo Emerson who package reams with an hydraulic packing machine . . . a modern device that forces air out of cartons, and assures a strong sealed package.

LIST OF EASTERN PAPERS

ATLANTIC.....*BOND

*LEDGER

*MACHINE POSTING LEDGER

DUPLICATOR

COVER

*ANTIQUE LAID

*BOXED TYPEWRITER PAPER

*MIMEO BOND

MANIFOLD

MANUSCRIPT COVER

DUROPAKE

*BOND ENVELOPES

*BOND CABINET STATIONERY

VELLUM

A complete line of uniformly high-quality, standardized business papers.

VOLUME..... BOND

BOND ENVELOPES

An inexpensive, dependable, watermarked mill brand paper.

MANIFEST.....BOND

LEDGER

MIMEO BOND

DUPLICATOR

BOND ENVELOPES

The leading mill brand line in the Economy Group.

PILGRIM.....Papeterie in regular, extra fine and super fine grades, and in machine, Vellum, Felt, Linen and Embossed finishes.

SULPHITE WRAPPING.....in striped, watermarked and embossed designs.

All above brand names are registered trademarks.

*(Genuinely Watermarked)

Printed in Sheet-fed Gravure by the Beck Engraving Company on paper manufactured by Eastern Corporation.

