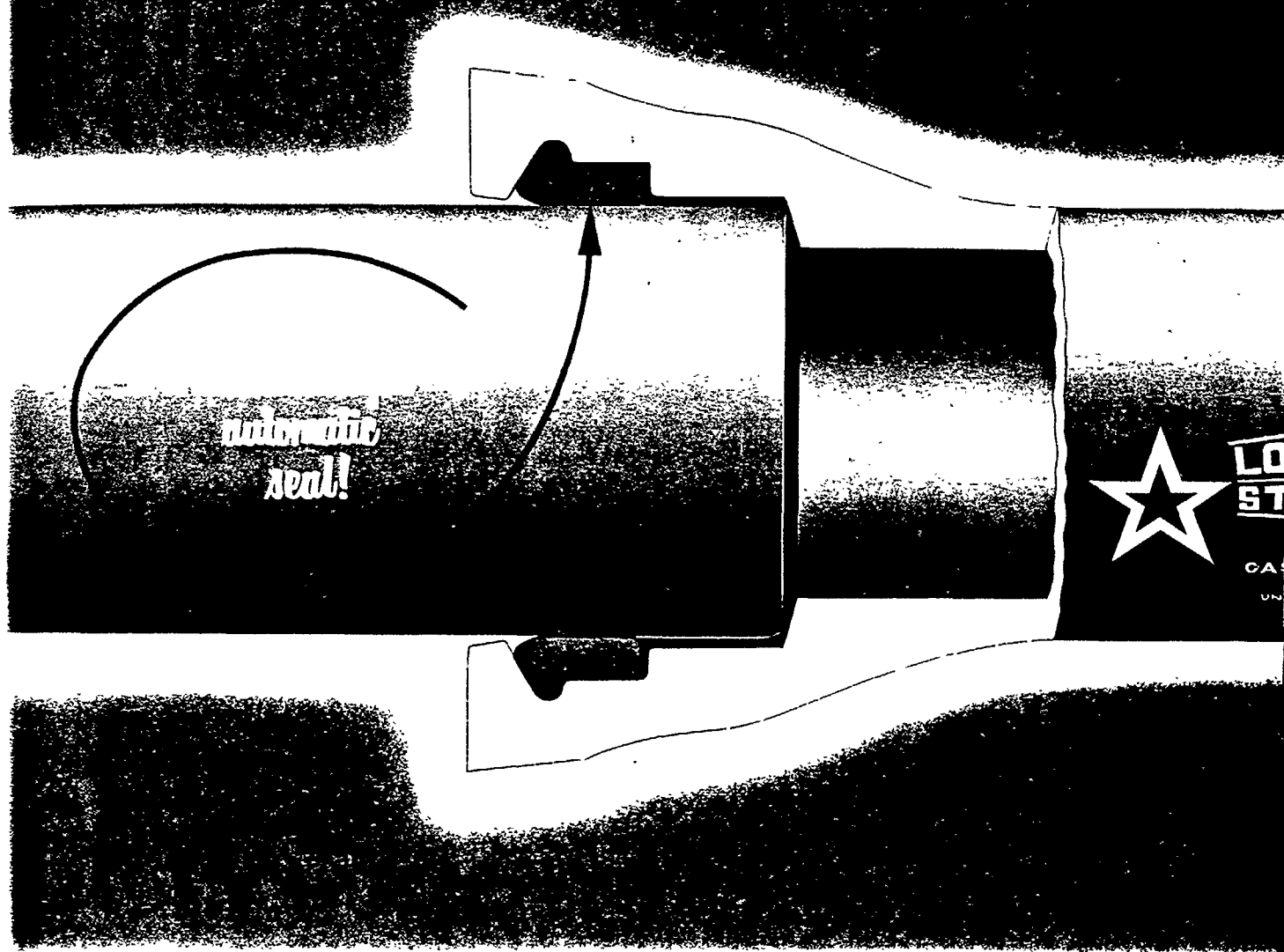


PLAINTIFFS
EXHIBIT
JMC-287

LONE STAR BELL-TITE JOINT CAST IRON PIPE

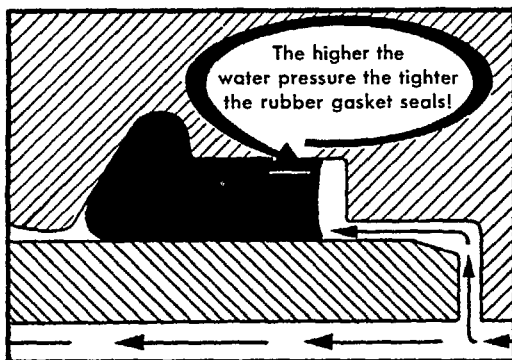


Modern Way

Field tests have proven conclusively that the new Lone Star Bell-Tite Joint is the modern and economical way to lay cast iron pressure pipe. The entire operation is quick and simple . . . insert rubber gasket into receiver groove of bell, apply special lubricant to gasket, slide spigot into bell. That is all there is to it — no bolts, no follower rings, no nuts, no wrenches, no lead kettles, no caulking tools, and no jute! Fewer parts mean less expense, and by eliminating the need for all of these parts and assembly tools, less man hours are needed to make up a joint. Contractors have reported that the laying of Lone Star Bell-Tite Joint goes so rapidly that they have difficulty opening ditch fast enough to keep ahead of the pipe layers.



Lone Star's scientifically designed bell will provide an automatic and pressure tight seal that is actually stronger than the pipe barrel itself. When tested to destruction in the laboratory with pressure many times the maximum pressure encountered in the field, the barrel will fail before the seal will break. This is due to the fact that the higher the water pressure builds up, the tighter the water compresses



the gasket against the receiver groove. The large rubber area of the Lone Star Bell-Tite gasket affords greater sealing surface and assures maximum seal-ability to prevent dislodgment of the joint. The design of the gasket self-centers the spigot and provides for maximum deflection of the pipe. When the pipe is deflected, the gasket remains firmly seated.

Other type Lone Star Pipe is also available such as Bell and Spigot, Roll-On Joint, or Mechanical Joint.

THREE SIMPLE ASSEMBLY STEPS

Before assembling Lone Star Bell-Tite Joint, clean the inside of the bell and the outside of the spigot.

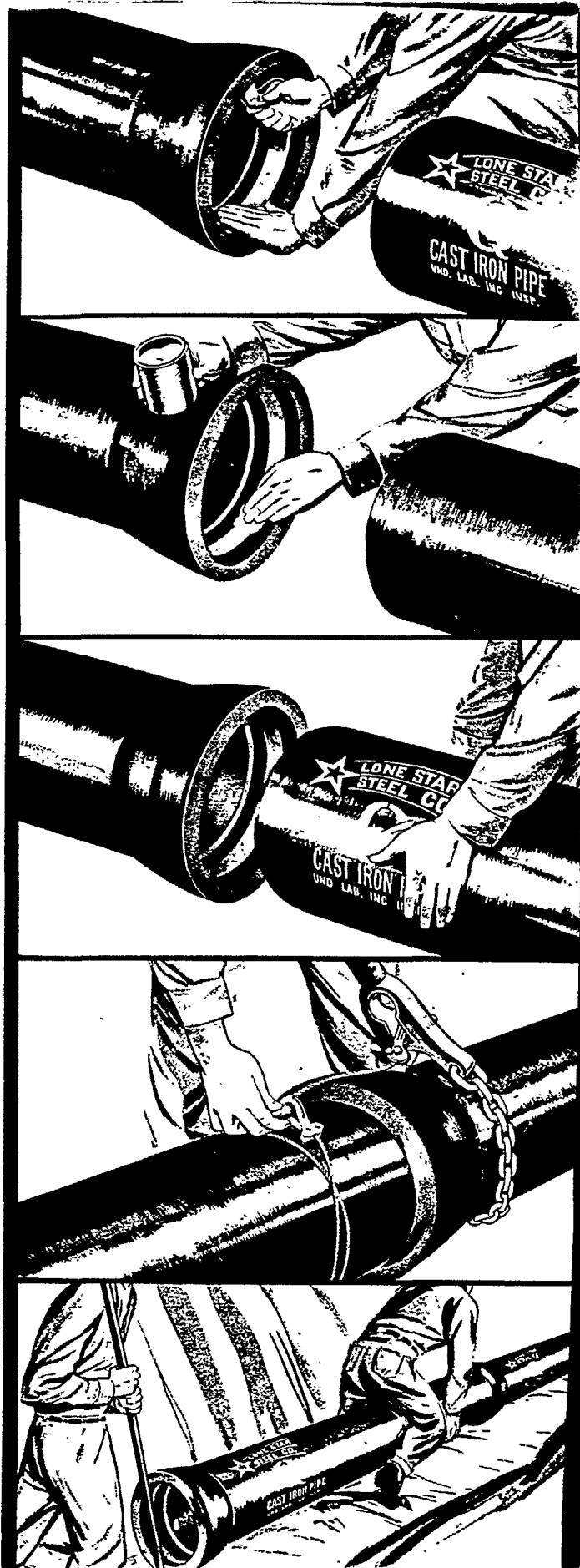
- 1** Insert the rubber gasket into the receiver groove of the bell. Note how the gasket can be flexed for easier installation.
- 2** Apply a thin film of Lone Star's specially compounded lubricant to the gasket before socketing the spigot.
- 3** S-L-I-D-E spigot into the bell - (When to be deflected, assemble straight and then deflect.)

Lone Star will furnish a puller assembly tool to socket the pipe. A chain type assembly tool is shown in operation.

For smaller pipe, many contractors prefer to socket the pipe with a pry bar.

When pipe is cut in the field, bevel the spigot with a heavy file or portable grinding wheel to remove any sharp edges. This will permit easier entry of the spigot into the bell.

***FASTER!
EASIER!
MINIMUM COST!***



"Quality Controlled"

Lone Star Bell-Tite Joint Cast Iron Pressure Pipe is centrifugally cast in metal molds and comes in nominal 18' lengths. The pipe barrel conforms to all requirements of the American Water Works Association Specification C106-53, the American Standard Association Specification A21.6, and Federal Specification WW-P-421a. This pipe has been approved for working pressures up to and including 350 psi by the Underwriters' Laboratories. The bell has a receiver groove and socket especially designed for use with the molded rubber gasket. The plain end is tapered to facilitate easy joint assembly.

The Lone Star Bell-Tite gasket is manufactured from first grade natural and/or synthetic rubber. All gaskets are molded into an endless ring and are smooth except for special identification markings. The rubber has a durometer hardness of 65. The special gasket lubricant is a non-toxic vegetable soap and imparts no taste or odor to the water and has no deteriorating effect on the rubber.

Lone Star Bell-Tite Pipe is made to the same outside diameter of Mechanical Joint; consequently, it is interchangeable with Mechanical Joint Pipe and fittings.

Gaskets and the lubricant to assemble Bell-Tite Joint will be furnished by Lone Star and assembly tools are furnished at nominal charges which are refunded when the tools are returned.

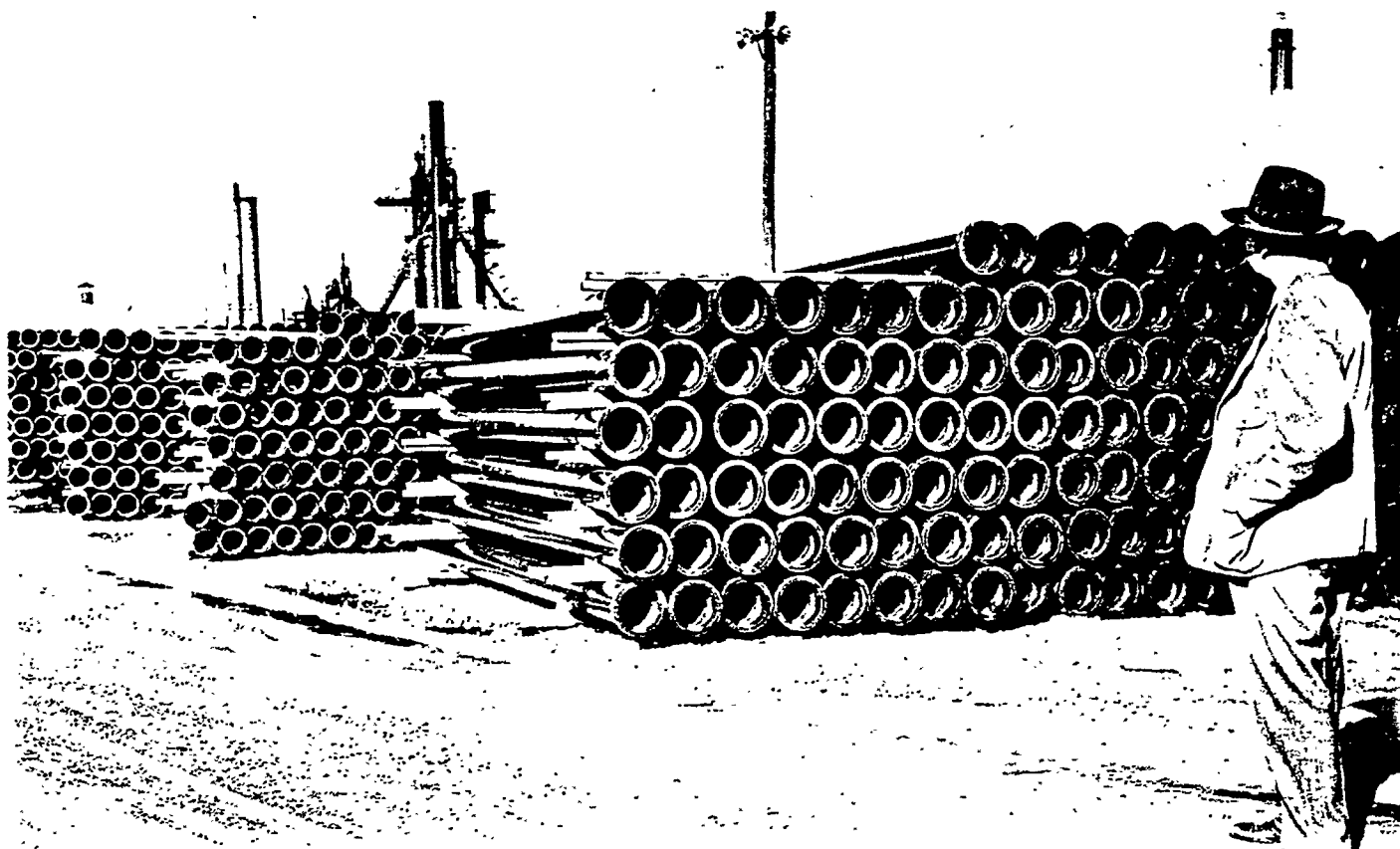
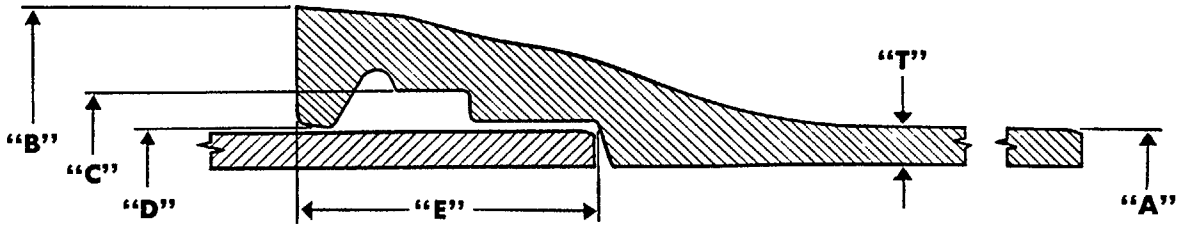


TABLE OF DIMENSIONS



ASA A21.6 and WW-P-421a

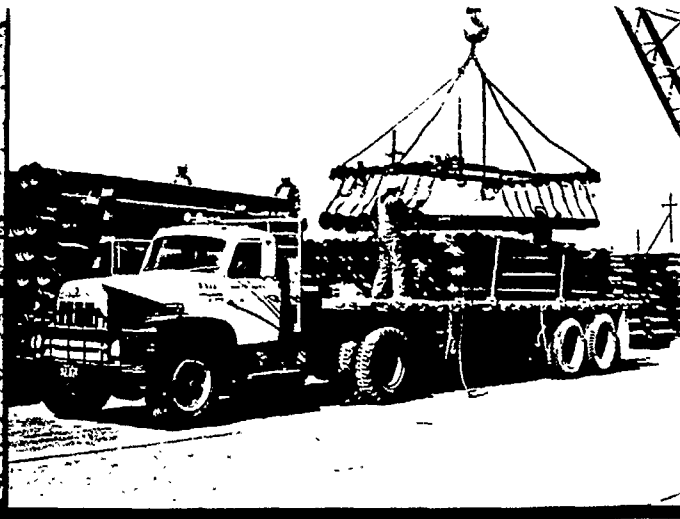
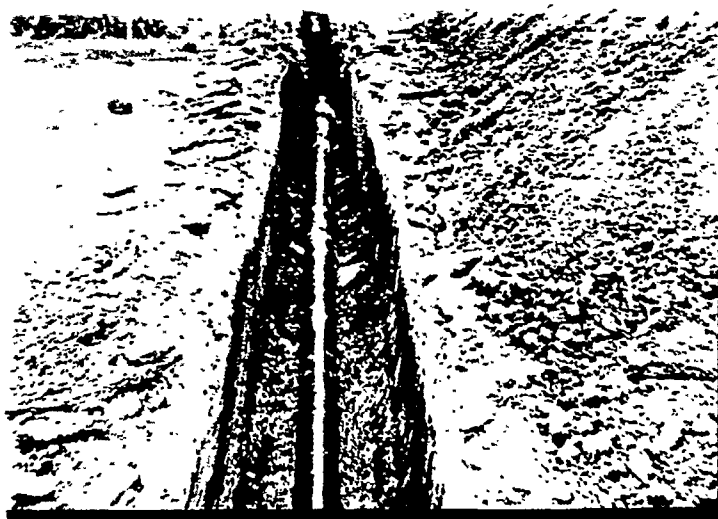
STANDARD THICKNESS and WEIGHT of
PIPE CENTRIFUGALLY CAST IN METAL MOLDS*

Pipe Size IN.	CLASS	Thickness Class	DIMENSIONS in INCHES						NOMINAL LAYING LENGTH	WEIGHT PER LENGTH ‡	WEIGHT PER FOOT (Incl. Bell) †
			"A"	"B"	"C"	"D"	"E"	"T"			
4	50 thru 350	22	4.80	7.72	5.73	4.92	3.34	.35	18'-0"	290	16.1
6	50 thru 350	22	6.90	9.90	7.83	7.02	3.50	.38	18'-0"	460	25.6
8	50 thru 350	22	9.05	12.41	10.15	9.17	4	.41	18'-0"	665	36.9
10	50 thru 250	22	11.10	14.66	12.20	11.22	4	.44	18'-0"	880	49.0
10	300	23	11.10	14.66	12.20	11.22	4	.48	18'-0"	955	53.0
10	350	24	11.10	14.66	12.20	11.22	4	.52	18'-0"	1025	56.9
12	50 thru 200	22	13.20	16.84	14.30	13.32	4	.48	18'-0"	1140	63.4
12	250 thru 300	23	13.20	16.84	14.30	13.32	4	.52	18'-0"	1230	68.3
12	350	24	13.20	16.84	14.30	13.32	4	.56	18'-0"	1315	73.1

*The thicknesses and weights shown are for pipe laid without blocks — on flat bottom trench — with tamped backfill — and under five foot of cover. For other conditions, please refer to Tables 6.2 and 6.4 of ASA Specifications A21.6 and A21.1 — "Manual for the Computation of Strength and Thickness of Cast Iron Pipe."

‡Average weight per foot is based on calculated weight of pipe before rounding.

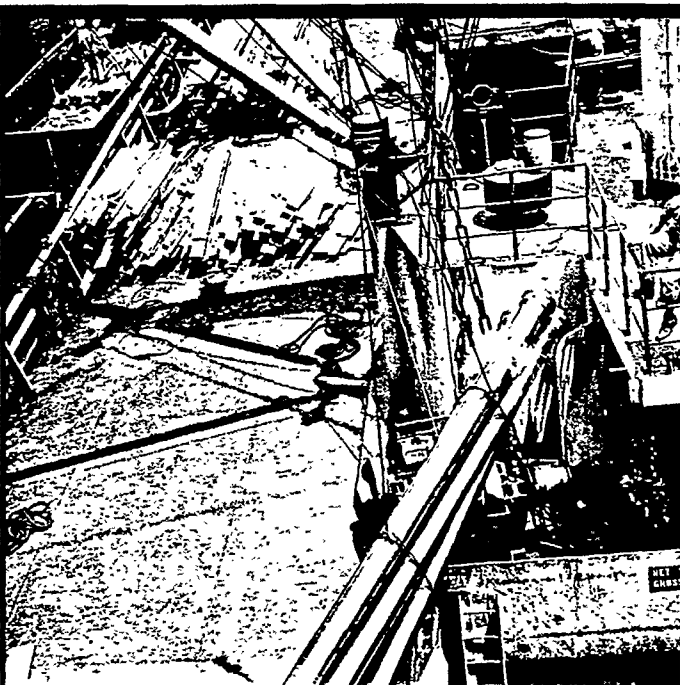
†Weight per length includes bell and calculated weight of pipe is rounded off to nearest five pounds.

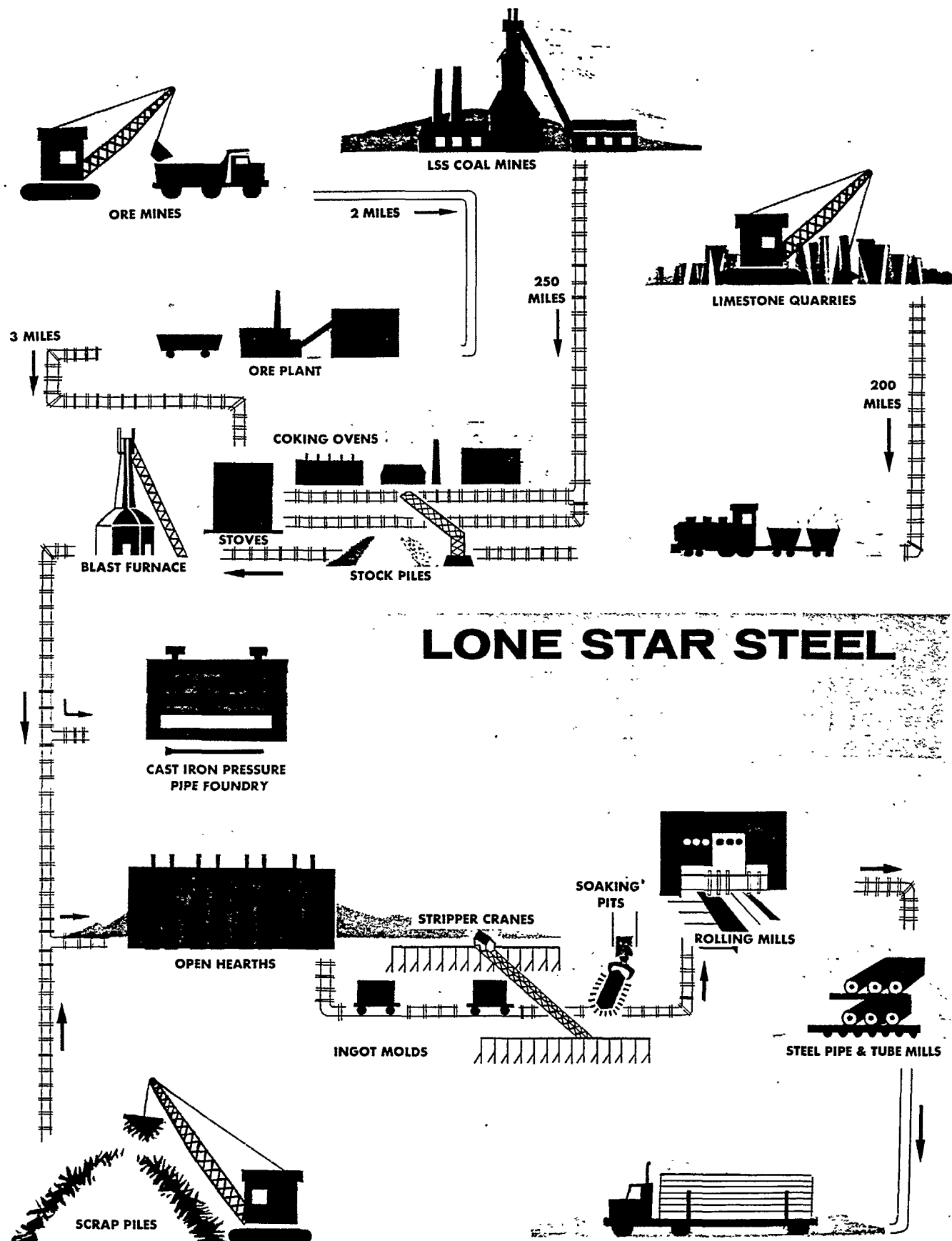


From the great Southwest to the West Indies, Lone Star Bell-Tite is the choice!

Contractors throughout the great Southwest find that Lone Star Bell-Tite Joint lays rapidly, deflects readily, and saves money on the overall cost of water main and sewer jobs. Even with a "green" crew, the assembly of Lone Star Bell-Tite will go smoothly without the need of costly and time consuming tools. With an experienced gang, contractors have reported laying as many as 25 joints of Bell-Tite in an hour! For large jobs or small jobs, Bell-Tite is the modern and economical way to lay cast iron pressure pipe and Lone Star is the brand that assures top quality.

Below, Lone Star Bell-Tite is loaded aboard an ocean freighter bound for San Juan, Puerto Rico. As a result of a government sponsored health and sanitation program, thousands of feet of Lone Star Bell-Tite Joint was laid in Puerto Rico. This represents progress for today and protection for many years to come in this easternmost island of the West Indies. Lone Star has made shipments of Bell-Tite as far away as Venezuela . . . and even in South America, Lone Star Bell-Tite Joint is recognized as the cast iron pipe that provides trouble free service.





ONE STAR



BELL-TITE



ONE STAR



BELL-TITE



ONE STAR



BELL-TITE



ONE STAR



BELL-TITE



ONE STAR



BELL-TITE



ONE STAR

Lone Star STEEL

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CAST  IRON
UND. LAB. INC. INSP.

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