



A NAVY IN A HURRY



Twenty-five years of work in three years. That's the schedule. "And we're getting it done," says Admiral Robinson, hard-driving boss of the Navy's vast high-speed building program. This is how

by **Arthur Bartlett**

"THAT is going to be the biggest battleship in the world," said the naval officer.

I looked down from our point of vantage high in the scaffolding. It was big all right. From amidships, we'd have needed binoculars to make out what was going on either in the bow or in the stern. And yet the bigness, so far, was all down there on one plane. The ship was still just a vast, shallow dish. The riveters and the welders were still fitting together their plates of steel in what would eventually be the deepest, darkest innards of the man-o'-war. The ship still had to grow up within the frameworks of the scaffolding — up as high as we were, and yet higher.

"How long have they been working on her?" I asked.

"About seven months," said the officer.

Seven months — and the sides of the great ship had hardly started to rise!

"It's a long, intricate job," said the officer. "As a matter of fact, she's well ahead of schedule."

I saw something of the intricacy of the job that day. I saw the small scale model of the ship which had first been made, accurate right down to the last detail of armament and fittings. I saw larger, half-scale models of sections of the ship, painstakingly fashioned of wood, with wooden machinery, wooden pipe, wooden cable — models which had to be built and rebuilt until it was certain that every item would fit efficiently in its allotted space. In a wooden model of the bow of the ship, I saw two men working a wooden anchor on a wooden anchor cable, letting it down, pulling it up, studying its every turn in the process. "They've been working on that anchor for weeks," said the officer accompanying me. "Having the anchor work just right might make a lot of difference some day."

I saw other wooden sectional models which were actually full-size — "mock-ups," the shipbuilders call them — in which men could go through the same routine that they would have to aboard the finished ship, and thus find in advance any kinks in the planning of the arrangements.

All this while the steelworkers proceeded with the actual building of the ship. Before

they had even started, men had been drawing plans for many months — first, preliminary plans; then, detailed plans of every item going into the ship, from davits to gears and turbines. One officer estimated for me that at least 12,000 separate plans have to be drawn before a battleship is built; another told me that the paper work for one recently-built battleship added up to 150 tons.

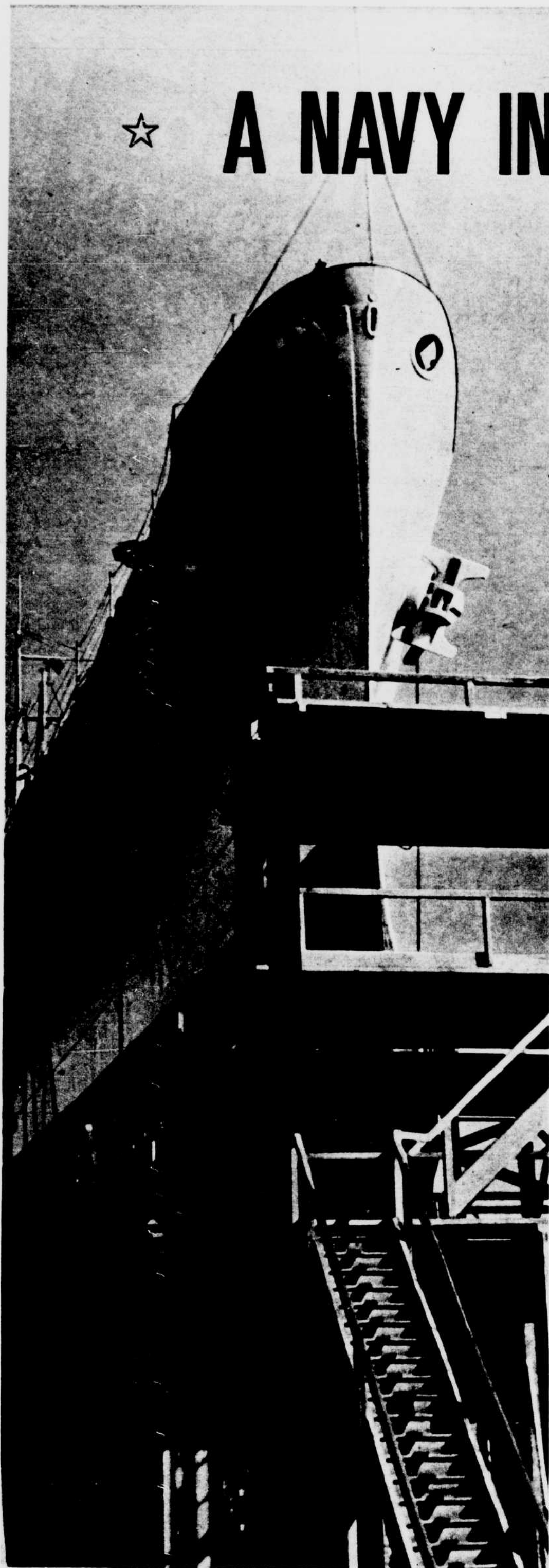
In a shipfitting loft, an immense place that looked like an oversized ballroom, I saw the ship being laid out on the floor. As a dressmaker cuts her cloth by a carefully worked-out pattern, so is each piece of steel predestined on this huge floor. First it is cut here in paper; then the paper pattern is moved on to be cut in wood; and finally, down in the shops, it is duplicated in steel, then sent on over to be fitted into its proper place in the growing ship. And it must be exact, to the fraction of an inch.

Yes, it is a long and intricate process. Frankly, I wouldn't even pretend to understand much of what I saw going on in that one shipyard — the fiery furnaces, the huge, monstrous machines, the sputtering, white-hot metal being poured, the incessant pounding. But it was all part of the building of modern battleships. I could begin to appreciate why it took so long.

The Speed-up Is On

IN NORMAL times, Navy men figure on four and a half to five years for the building of a battleship. But it won't take any such length of time to finish the one I saw being built. On the adjoining ways was another battleship under construction, on which work had been proceeding only a little more than a year. And already she was recognizably a battleship, even to the gun turrets. Half a year had made the difference between her and the one that seemed to have so far to go.

The fact is that every vessel under construction today for the United States Navy is not only well ahead of the normal construction schedule, but well ahead of a speed-up emergency schedule which, when it was laid down, was called "fantastic." One recently-launched battleship was on the ways just two years. A destroyer was built in 10



U. S. Navy

ON THE WAYS: Ships are sliding down them at the rate of one a day. Sometimes more. This is the heavy cruiser Atlanta



Harris & Ewing

BABY BROTHER: It takes 12,000 plans and hundreds of wooden scale models to build a battleship. Each minute detail must be accurate