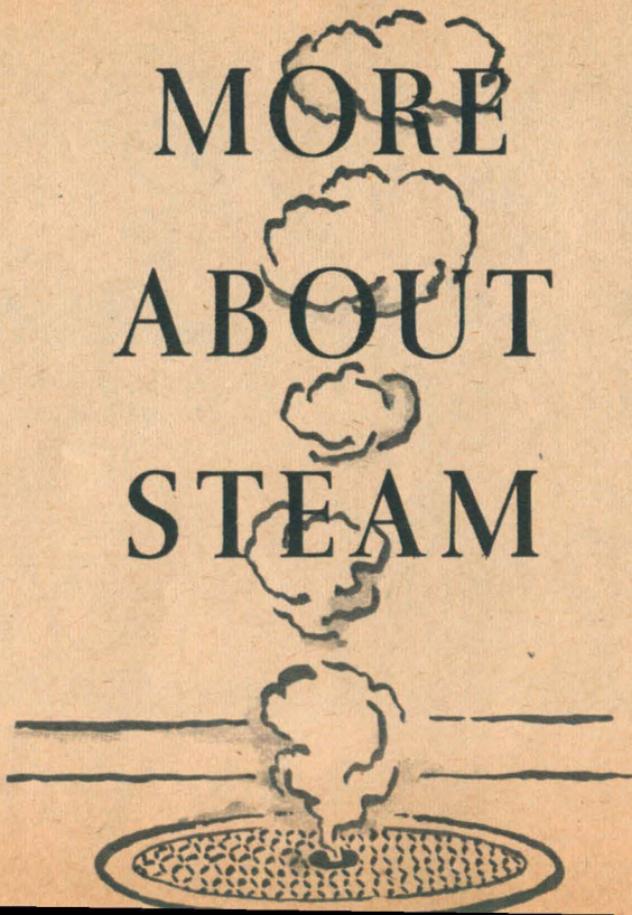


WHEN the steam that's piped under New York streets isn't playing tricks (as it is on the opposite page), it's performing three main jobs — heating large commercial buildings, aiding industry, and producing air conditioning.

Most apartment houses and small office buildings don't buy steam from the outside, but the really big buildings do. They find it's cheaper than providing their own heat, and — because they don't need oil burners — gives them more space to rent. Industrial steam is called process heating, and that's used in a variety of ways. The garment district uses it to process cloth, soft-drink manufacturers use it to sterilize bottles, furniture makers use it to soak wood for shaping or soften veneers for glueing — these are only a few uses. As for air conditioning, steam is used to power large units. Buildings that use steam for heat in winter often hitch it to their air conditioning systems in summer. This use for steam is becoming more and more common.

Piped, wholesale steam is unique to Manhattan in New York City and most of it is used midtown and downtown. An estimated 80 miles of steam mains run under the island's streets. Most of the pipes are steel; a few of the older ones are cast iron.



It takes just 34 seconds for steam to get from a plant on the East River and 38th Street, one of the places where it's made, to the top of the Empire State Building.

What causes steam to puff up through manholes? Except when digging is going on, the usual cause is simply condensation. Often warm air and moisture are trapped below the street, and as the air rises through the manhole and hits colder, drier air, vapor results. This can happen from a steam-main manhole or a plain sewer manhole without a steam pipe. When there's an excavation, steam is sometimes being piped off to protect the men in the hole. And, of course, there could be a leak in a steam main (though it doesn't happen often). Usually the cause of rising steam isn't at all dramatic.

How do you go about buying steam? The sole supplier is Consolidated Edison, which sells it in 1,000-pound lots; the charge is based on a complicated scale.

Two more odd facts for your file on steam: The Camel cigarette sign in Times Square uses steam for the "smoke" rings that come out of the man's mouth, and the sidewalk around Best's that's heated to melt snow has steam pipes underneath it.