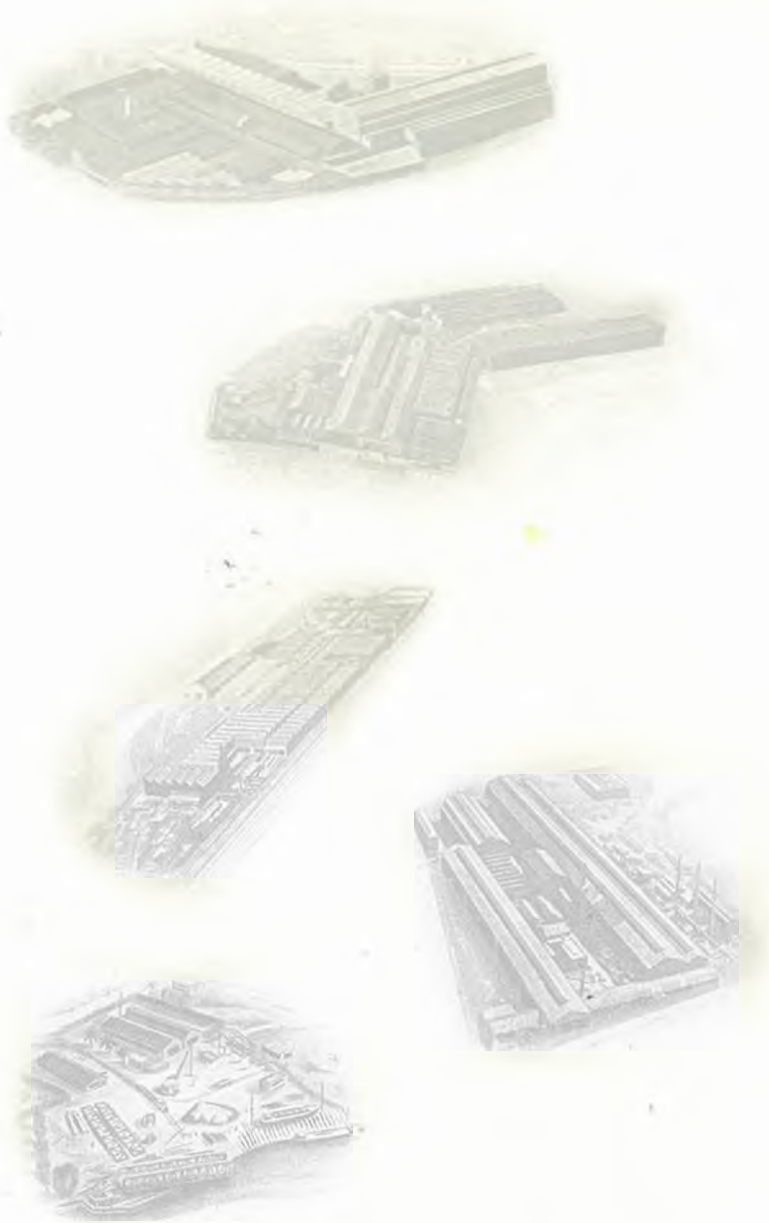


# BAUME & MARPENT

SOCIÉTÉ ANONYME

WORKS : AT MARPENT (France - Nord) • HAINE - SAINT - PIERRE and MORLANWELZ (Belgium)
CAIRO (Egypt) • IN THE BELGIAN CONGO : BAUMACO - ÉLISABETHVILLE - KATANGA - P. O. BOX : 1646
ADMINISTRATIVE OFFICES : 2, RUE DE LA POTRÉE, MORLANWELZ
BRANCH OFFICES : PARIS, 107, RUE LAFAYETTE • LEOPOLDVILLE, B. P. 1090

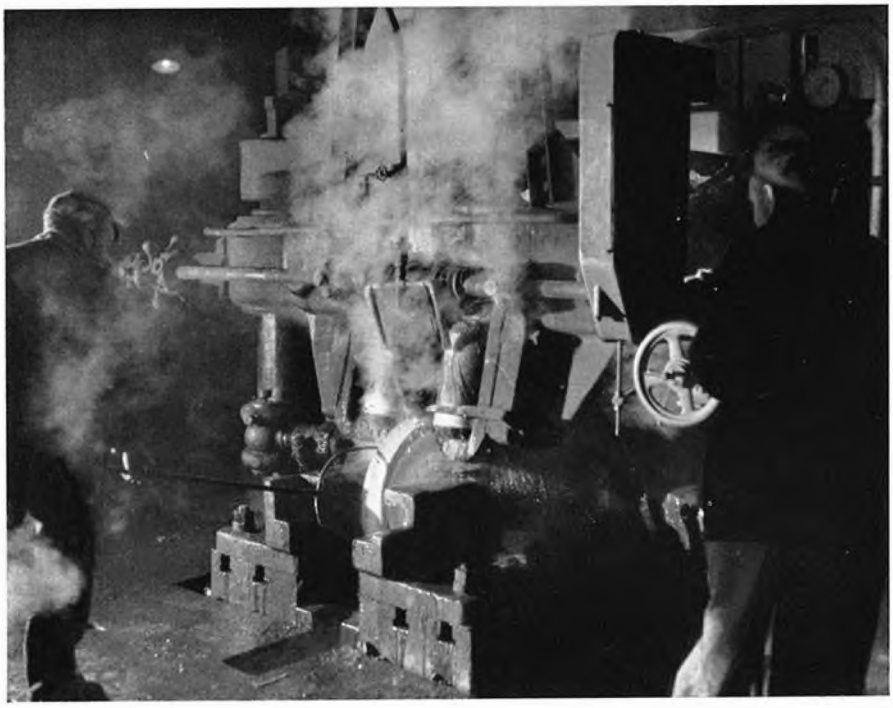
# ROLLING STOCK

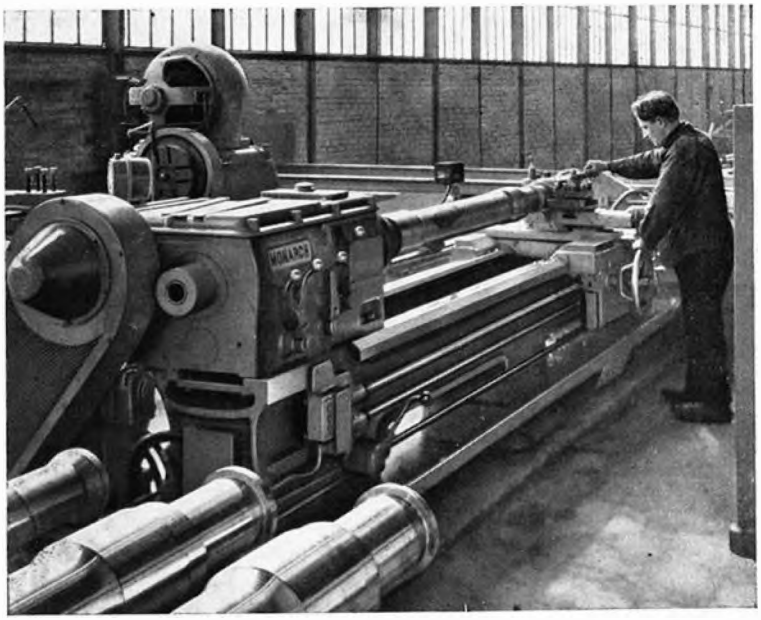
**After a period when its activities were confined to the production of individual components for rolling stock, BAUME & MARPENT undertook the building of good wagons, and then passenger caches, railcars, electric locomotives, and diesel locomotives with mechanical, hydraulic, and electric transmission.**

**As well as standard types of wagons built to the specifications of nationalised and private railway administrations, BAUME & MARPENT, whose own design offices enjoy a high reputation, have developed many classes of vehicles to meet special requirements in respect of means for automatic unloading through drop doors, hoppers, or by tipping ; for transporting heavy and bulky loads, or loads occupying much space although of moderate weight ; inflammable liquids, paraffin, petrol, fuel oils, mineral oils and tar, acids, ammonia, and caustic cleansing fluids.**

*Pressing a former for rolling a tyre.*

*The illustration below shows a wheel centre in the rolling mill. After this process the centre will pass through a press where its final corrugated surface will be formed, before being finished by machine tools which give the correct diameter and width to rim and hub.*



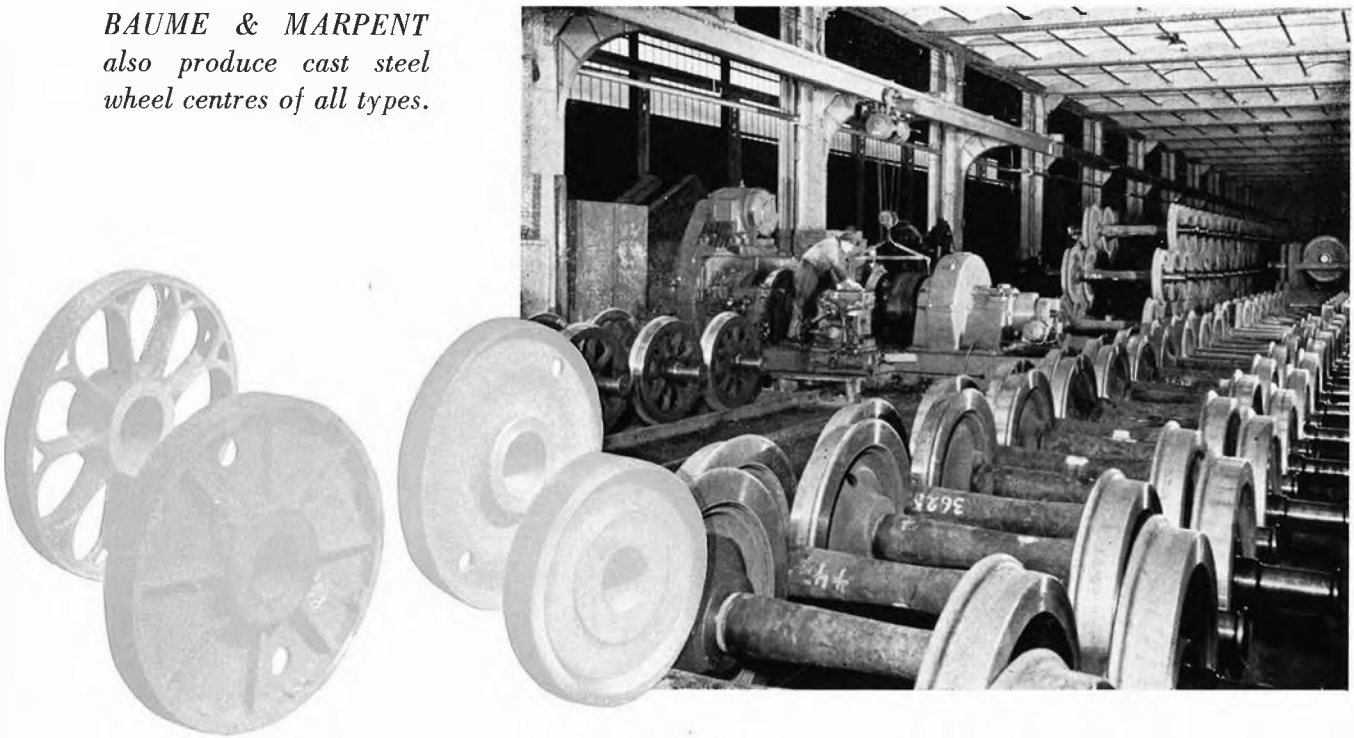


*Monarch automatic lathe carrying out final machining operations on axles.*

BAUME & MARPENT'S own steelworks are equipped with Martin process and electric furnaces for producing high quality steel to be used in making tyres and wheel centres. The steel, cast in ingots of suitable size and shape, is forged in a series of presses to produce blanks for the rolling mills.

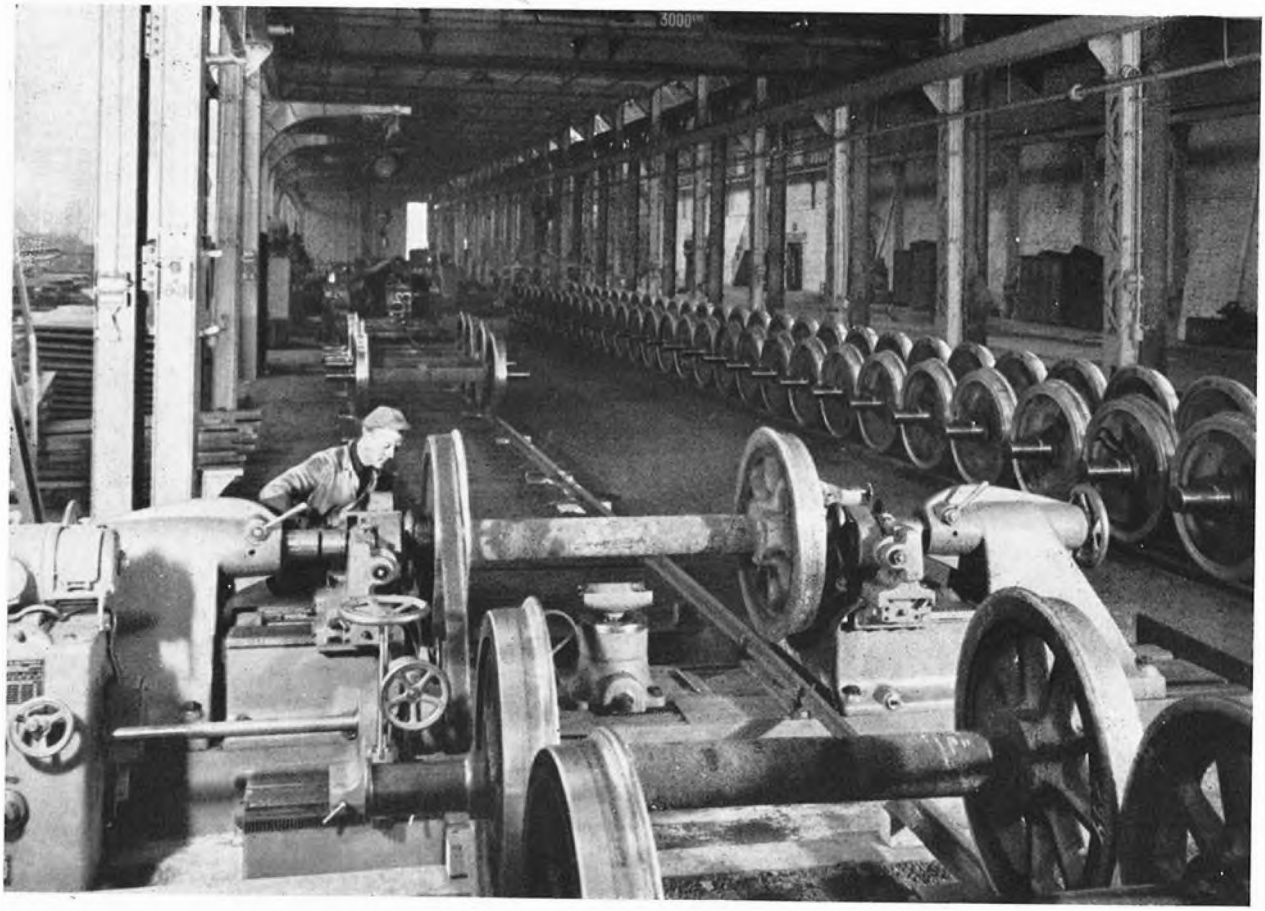
*Vien in the shop where wheels are profiled and axles journals machined on special lathes.*

*BAUME & MARPENT also produce cast steel wheel centres of all types.*

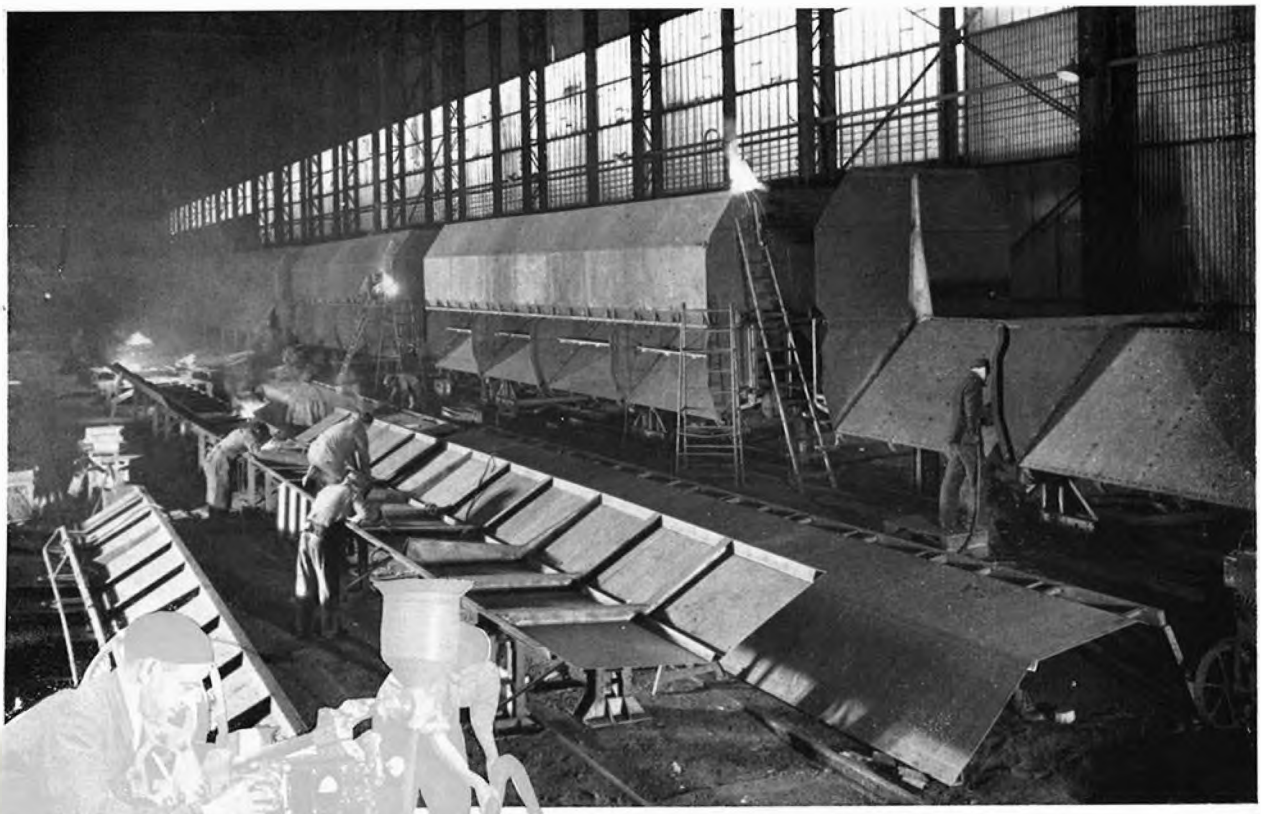


*This bogie for an 80-ton electric locomotive was designed and developed by our technical departments to meet the most stringent requirements of stable suspension and good riding.*
*With these objects the suspension of the bogie frame from the axles is by means of coil springs in the hornplates, while the body suspension is through a swing bolster with its ends carried on leaf springs arranged in the longitudinal axis of the side members.*

*Axle journal turning lathe.*

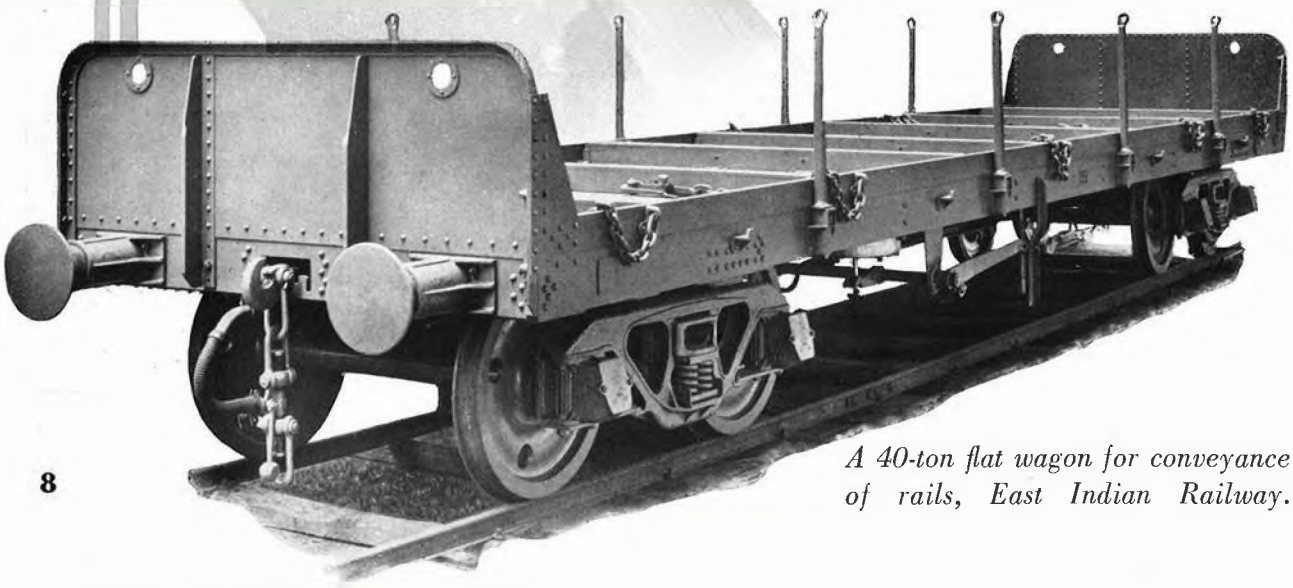



*Hopper wagons for lignite traffic, built for the Jugoslav State Railways, with automatic discharge from both sides. Capacity, 131cu. yd. ; load, 51 tons ; tare weight, 28 tons. These wagons have a brake rigging with two blocks per wheel, operated by the Knorr-Kunze automatic compressed air system with automatic compensation for loading ; also hand operation by wheel and screw. Diamond type two-axle bogies, 4ft. 8 ½in. gauge ; axleboxes with anti-friction brasses ; and coil spring suspension.*
*The body is specially shaped to conform with the R. I. C. loading gauge, and has four side doors operated in pairs by a lever system.*



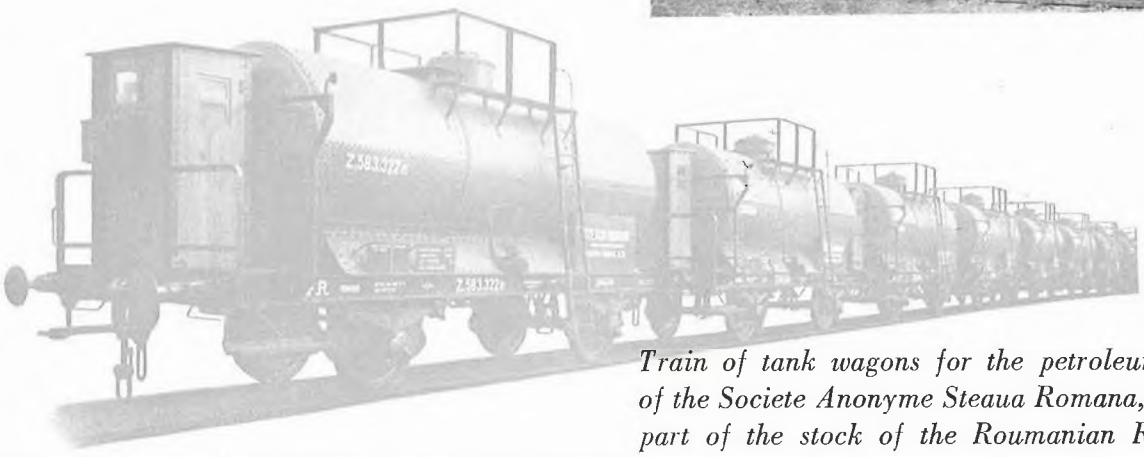
*Assembly line of saddle-bottomed hopper wagons for lignite traffic under construction for the Jugoslav Railways.*

*Electric welding of a flat-top, 75 Ton wagon underframe.*



*A 40-ton flat wagon for conveyance of rails, East Indian Railway.*

*Two-axle standard gauge tank wagon for the Société Française de Distribution des Pétroles au Maroc. Capacity 23 ½cu. yd. ; eight brake blocks with Westinghouse automatic or hand operation, and brakeman's cabin.*

*Train of tank wagons for the petroleum traffic of the Societe Anonyme Steaua Romana, forming part of the stock of the Roumanian Railways.*

*Train of flat wagons on standard gauge bogies for carrying crucibles of molten steel ; load 75 tons ; built for the Netherlands State Blast Furnaces, Steelworks & Rolling Mills, Ijmuiden.*

*Saddle-bottomed hopper wagons for the Societe Anonyme Usinor (France). Unloading from both sides ; capacity for 60 tons of iron ore ; 4ft. 8 ½in. gauge ; Sixteenblock brake rigging with hand and Westinghouse operation.*

*Hopper wagon for mineral traffic with end platforms and automatic unloading from one or both sides ; load 45 tons, 4ft. 8 ½in. gauge, built for the Societe ARBED, Luxembourg.*

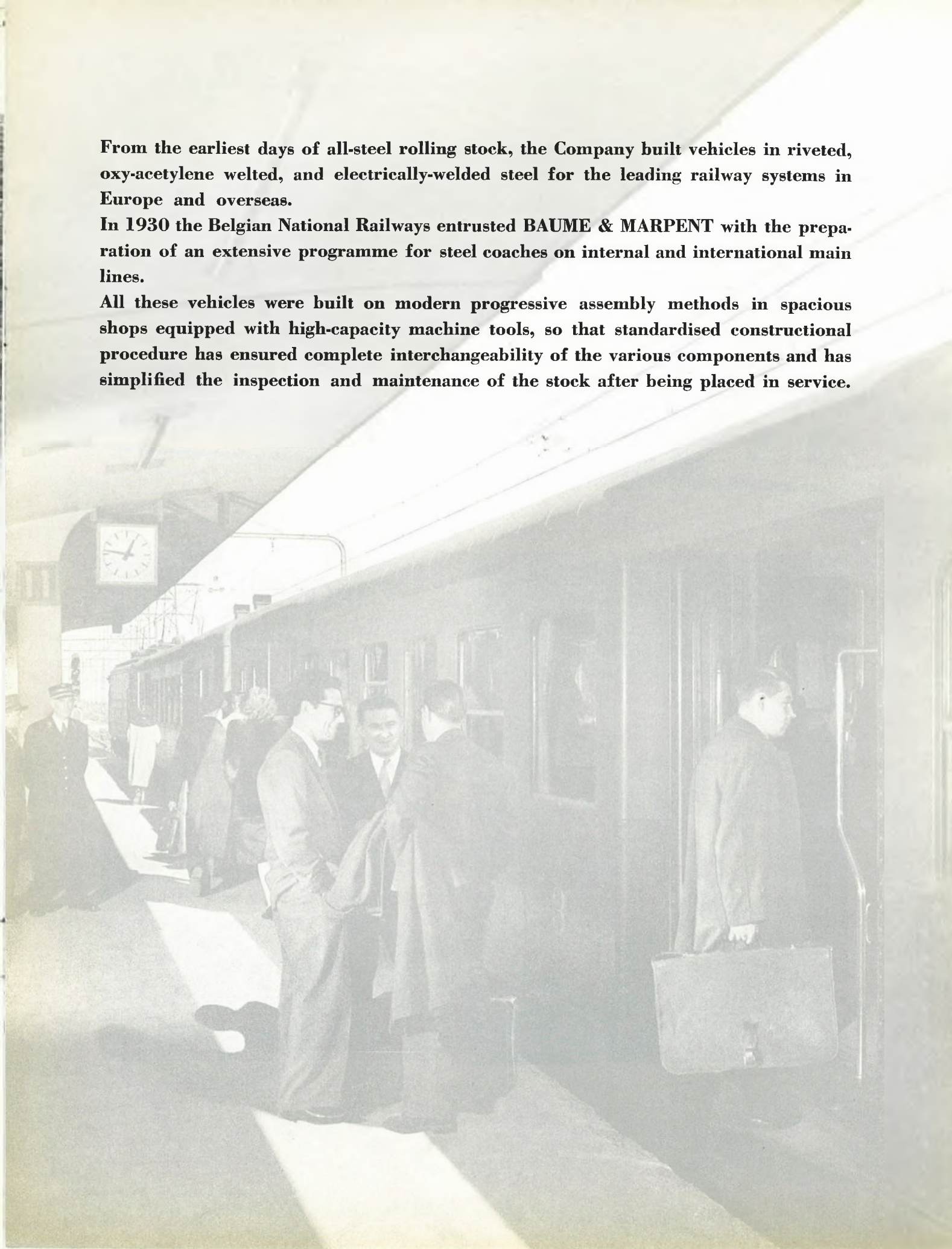

*Belgian National Railways train at Brussels Nord Station. The train is hauled by a 2,400 h.p. locomotive of the "101" class, built by BAUME & MARPENT, and capable of speeds up to 65 m.p.h. ; and is composed of all-steel coaches with central entrance vestibules as used on suburban services with very high traffic density. There are 94 seats and room for 50 standing passengers in each coach.*

→

**From the earliest days of all-steel rolling stock, the Company built vehicles in riveted, oxy-acetylene welted, and electrically-welded steel for the leading railway systems in Europe and overseas.**

**In 1930 the Belgian National Railways entrusted BAUME & MARPENT with the preparation of an extensive programme for steel coaches on internal and international main lines.**

**All these vehicles were built on modern progressive assembly methods in spacious shops equipped with high-capacity machine tools, so that standardised constructional procedure has ensured complete interchangeability of the various components and has simplified the inspection and maintenance of the stock after being placed in service.**

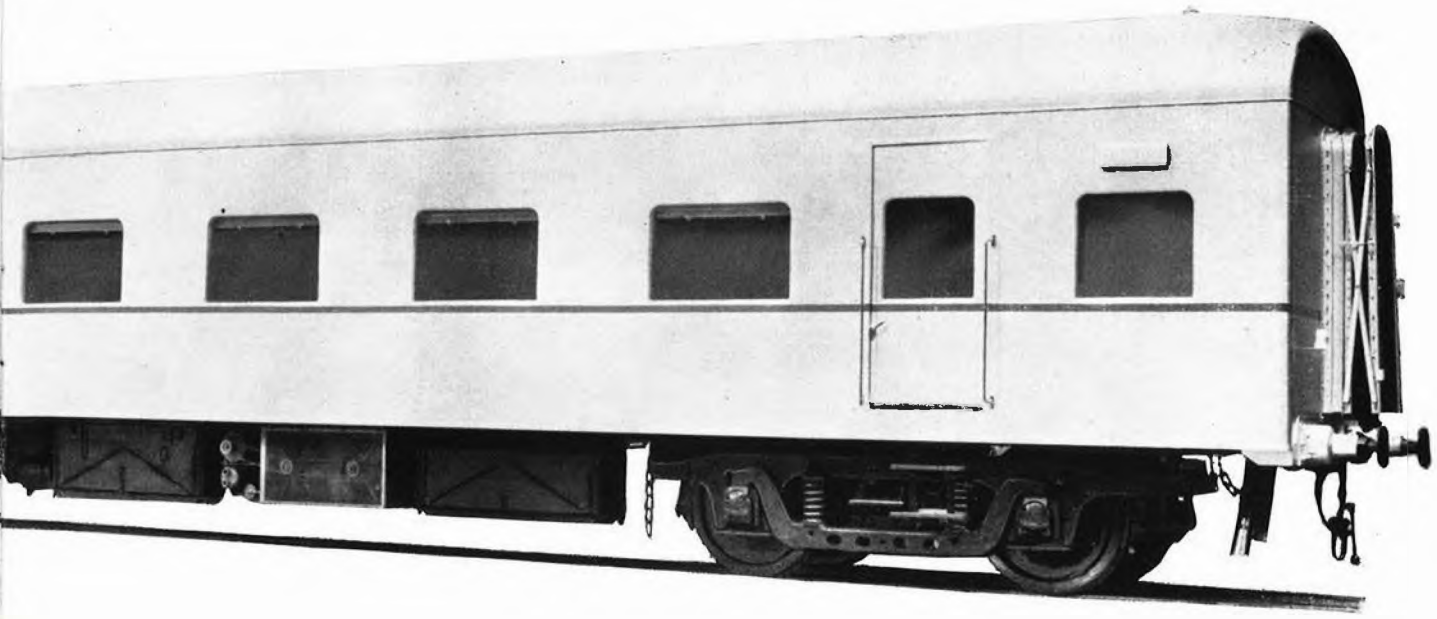


Higher train speeds have called for more solid construction and a higher degree of comfort in passenger rolling stock.

Wooden bodies carried on underframes gave way to metal bodywork constructed integrally with the chassis, with which it forms a single shock-resisting unit.

Outer panels are either of sheet steel or aluminium alloys ; interior panelling may be of metal or of types of wood indigenous to different parts of the world—mahagony, teak, lemonwood, kambala, and so on.

Heating and ventilation have undergome continuous improvement in order to provide increased comfort fort passengers ; some coaches are completely air-conditioned.

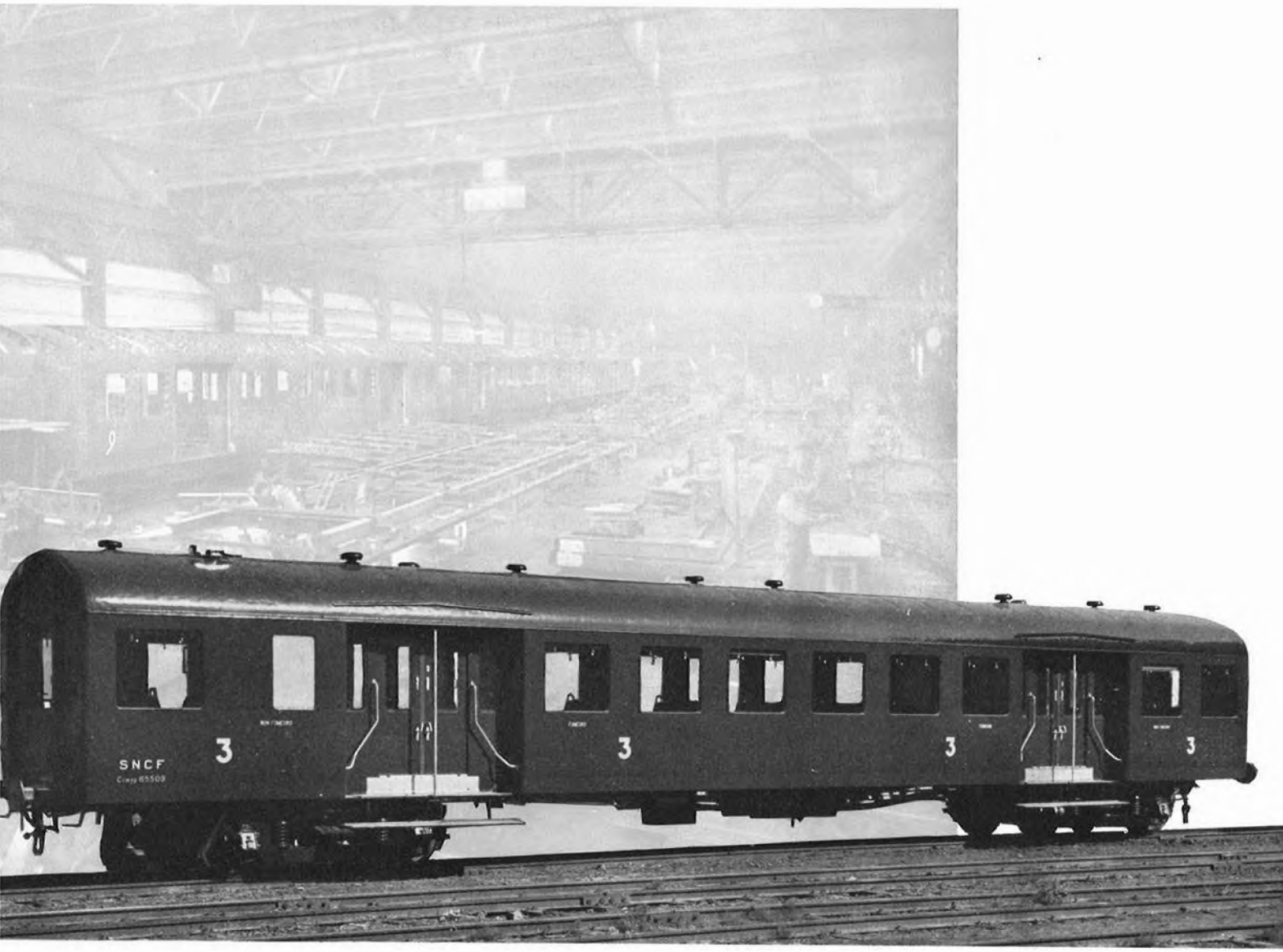


*First class coach for* trains de luxe *running between Alexandria and Cairo. This vehicle is equipped with a Stone's air-conditioning system incorporating the latest improvements in order to maintain a constant internal temperature—during intense heat by day, and despite the fall in outside temperature at night.*

*Interior view showing how the comfort of the accommodation is enhanced by the luxurious upholstery of the sets with their padded backs ; by the thick carpets laid on the floor over felt to make them softer to the tread. The walls are covered with gaily coloured plastic materials.*

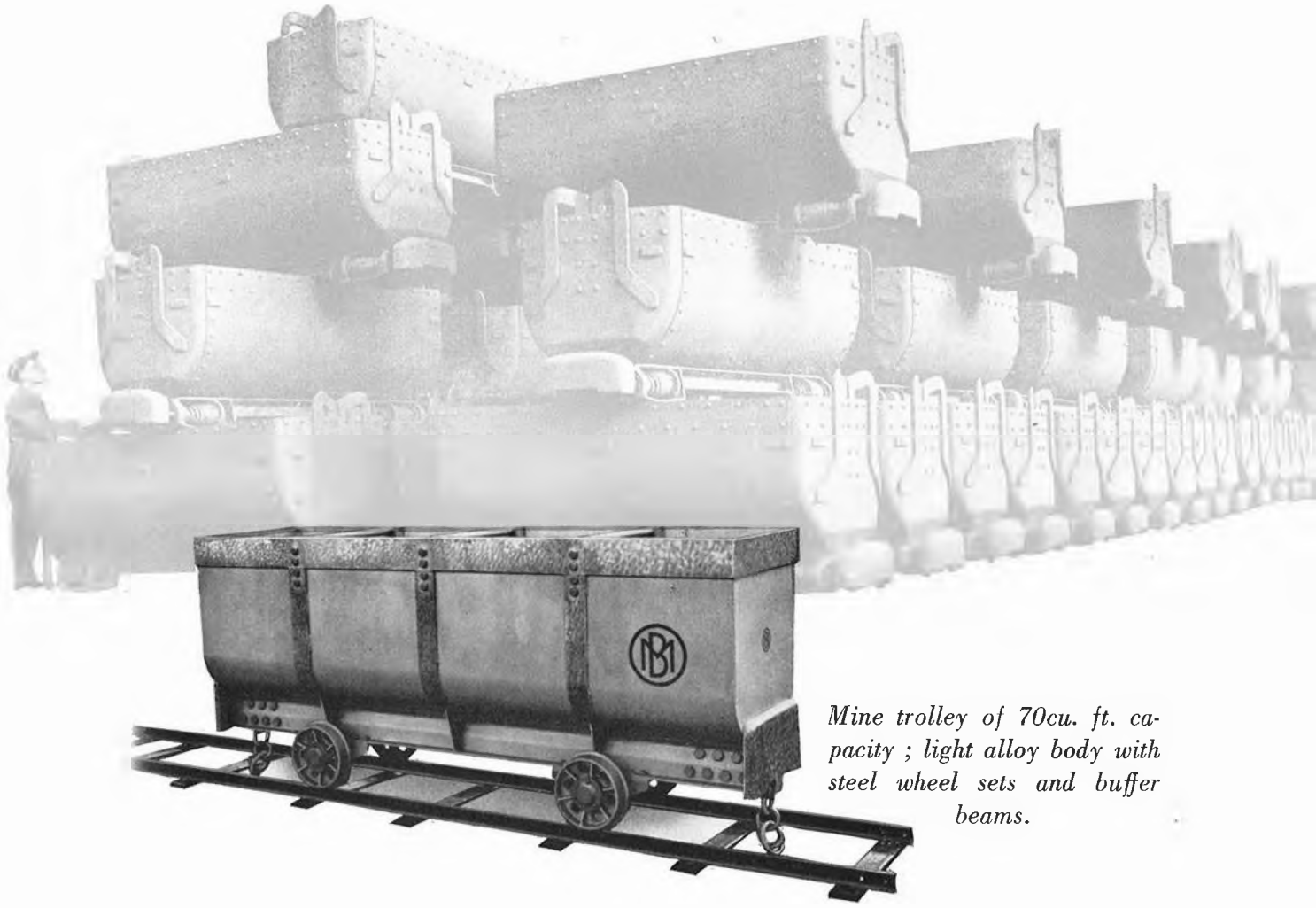
*Diffused and even illumination is provided by ceiling lighting fittings. The windows are double-glazed, the glass being slightly tinted in order to counteract excessive brilliance during daylight. Fabric curtains are also provided so that passengers can gain further protection from the sun if they so desire.*

*A special refrigerating system ensures a supply of cold drinking water.*




*All-steel third class suburban coach for trains of the French National Railways. The underframe, body structure, and side walls are fabricated from welded steel. Light aluminium alloys are used for the external panelling, partitions, and floor.*

*Transporters of 106cu. ft. capacity for opencast mine workings, specially equipped for use on aerial ropeways ; cast steel headstocks mounted on steel springs ; the bodies are carried on two pairs of wheels on fixed axles running in roller bearings.*



*Mine trolley of 70cu. ft. capacity ; light alloy body with steel wheel sets and buffer beams.*


*French National Railways container for parcels and express marchandise traffic.*

*Fish traffic container with ice compartments for refrigeration. These containers have been supplied to the National Railways of Colombia.*

*Special container with airtight cover for transport of oleaginous products. Built for the Belgian Congo.*