

812 Lake Formosa Drive
Orlando, Florida
August 16th, 1943.

TO: The Medal For Merit Board

SUBJECT: Award Of Medal To C. H. Payne.

1. Reference is made to my recommendation for the award of the Medal for Merit to Charles H. Payne, Jefferson Apts., 1200 - 16th St. N.W., Washington, D.C.

2. The following additional statement is submitted in the belief that some explanation as to what is connoted by the expression "engineering design and development," may be necessary.

3. The tactical conception of the vehicle had existed in the mind of the infantry office for a number of years. Up to 1940 the nearest approach to the ideal vehicle attained was the $\frac{1}{2}$ -Ton Marmon-Herrington pick-up, and the characteristics of that truck were approved by the War Department for the procurement of for use as automotive weapons - and - ammunition carrier for the infantry. In actual procurement, the Quartermasters Department ignored the approved characteristics and furnished a vehicle unsatisfactory for tactical missions.

4. This situation, together with the desire to replace the motorcycle with a vehicle capable of cross-country movement, led to a review by the infantry of the whole light motor field, in the hope that it would be possible to develop a vehicle that would be satisfactory for both liaison and weapons-carrier missions. While this matter was under study, contact was established with Mr. Payne, and numerous conferences were held with him with a view to arriving at conclusions as to how completely ideal tactical characteristics could be realized within engineering limitations. The tactical characteristics finally arrived at by my office related to:-

- (a) Maximum height: 36 inches.
- (b) Maximum weight unloaded: finally fixed at 2025.
- (c) Drive: four wheeled.
- (d) Cross-country ability and grade ability: at least equal to standard vehicles.
- (e) Capacity: at least two men, a machine gun with accessories and 3000 rounds of cal. .30 ammunition.

Later amphibious characteristics were added.

The basic idea underlying the development of the jeep was the production of a vehicle which, while sufficiently sturdy to stand the strains of difficult cross-country movement, would be light enough to be readily man handled out of trouble when stalled.

The foregoing characteristics were embodied in a letter of the Office of the Chief of Infantry which was approved as the basis for development and which should be on file in the War Department.

5. It was the task of Mr. Payne to determine how far the foregoing characteristics could be embodied in a vehicle within engineering limitations, and to assemble the appropriate automotive equipment. A number of modifications were made in the original specifications on Mr. Payne's recommendations.

By reason of his extensive knowledge of the equipment produced by the automotive industry, Mr. Payne was able to select and assemble the various components used in the production of the "jeep" pilot model which he first demonstrated at Fort Myer in October, 1940. Accordingly he procured:

The Motor: from the Continental Motor Company.

Transfer Case: Warner.

Four wheel drive axles and differential: Spicer Engineering Company, Toledo, Ohio.

Pins: Bendix.

Wheels: Hayes Wheel Company.

Body: York Body Company, York, Pa.

Shock Absorbers: Gabriel and Hudi.

Frame: Smith Mfg. Company and Great Lakes.

Radiator: Harrington.

Miscellaneous: In all, about 27 vendors furnished parts for the "jeep", including those above listed.

6. With reference to statements I have seen in the Press to the effect that the design of the "jeep" was prepared by Army Officers and that the civilian engineer had only to produce pursuant to such design, I believe I am in a position to state that no officer in my office (which had most to do with the project on the military side) either had sufficient technical knowledge to prepare such a design, or sufficient knowledge of engineering limitations or of the automotive industry to form an adequate judgment as to what would be practicable in production. This is clearly shown by the fact that our original weight limitation was fixed at 1,000 lbs, which had subsequently to be raised to 2,025 lbs.

In the preliminary conferences with the War Department, Mr. Payne defrayed all expenses from his own personal funds, including drafting and engineering expenses. He consulted the engineers of the various vendors of components. I am informed that he also defrayed the expenses of the preliminary testing of the car.

7. The following is my understanding of the relation of Mr. Payne to the American Bantam Company, which, as will be seen, was not that of an employee in the ordinary sense of the word.

When Mr. Payne first appeared in the War Department, he was not connected with any Company but was acting as an individual in business for himself. It was not until the final changes in the design of the car had been agreed on that he associated himself with the American Bantam Car Company. He could not accept a contract in his own name because during the development of the "jeep", he was not connected with an automobile factory where the car could be produced. He effected contact with the American Bantam Car Company through the Reconstruction Finance Corporation when he approached the Corporation

on the subject of obtaining a factory for the production of the vehicle. The R.F.C. is said to have recommended the American Bantam Car Company, influenced partly by the fact that the Company was in default of payments on R.F.C. loans. (These statements can, it is believed, be confirmed by the R.F.C.) I am sure Mr. Payne will be glad to produce his contract with the American Bantam Car Company if desired.

8. Following approval of the pilot model in October, 1940, an order for 1500 "jeeps" was placed with the American Bantam Car Company. Subsequently procurement was opened for bids and proposals, and other companies entered the field of manufacture. They followed the design of the original "jeep", but were unable to meet the weight limitation fixed by the War Department. Without reference to my Office, the Quartermasters Department raised the weight limitation several hundred pounds to allow these Companies to enter the competition, thus decreasing the man-handling capacity of the vehicle without any compensating advantage. My protest against this arbitrary action is contained in my letter to the Adjutant-General, dated Feb. 17, 1941, subject: Truck 1/4-Ton Liaison - characteristics.

9. There can be no question that without Mr. Payne, the "jeep" would never have been developed. Other companies which entered the field of production after the manufacture of the pilot model, had been given the opportunity to submit designs but declined to do so. They finally only produced close copies of the Pilot Model.

While Mr. Payne is not entitled to credit for the tactical conception of the "jeep", almost exclusive credit must be given him for the engineering design and the development of the tactical conception into an engineering reality.

G. A. LYNCH
Major General, Ret'd.