

THE CAVALRY JOURNAL

PUBLISHED BI-MONTHLY BY THE UNITED STATES CAVALRY ASSOCIATION

VOLUME XLVII
NUMBER 4



JULY-AUGUST, 1938
WHOLE NUMBER 208

MAJOR CHARLES S. KILBURN, CAVALRY, EDITOR

CONTENTS

FRONTISPIECE (Laguna, Fort Brown, Texas) . . .	290	THE STORY OF MY LIFE: AN AUTOBIOGRAPHY	345
THE MECHANIZED CAVALRY TAKES THE FIELD	291	<i>By Thomas D. Wadleton, Jr.</i>	
CAVALRY: A REQUISITE, Part II	301	THE MOUNTED ATTACK IN OPEN ORDER	348
<i>Anonymous</i>		<i>By Colonel H. S. Stewart, Late 15th Lancers, Indian Army</i>	
CRAZY BUSINESS	309	COMMAND — CONTROL — COMMUNICATIONS, A Regimental Viewpoint	351
<i>By Peter B. Kyne</i>		<i>By Lieutenant Colonel W. M. Grimes, 2d Cavalry</i>	
THE ROLE OF AVIATION WITH MECHANIZED CAVALRY	317	SPECIAL ACTIVITIES:	
<i>By Captain David M. Schlatter, Air Corps</i>		Exhibition Tour of the United States Army Equestrian Team	354
CAVALRY ORGANIZATION	321	<i>By Major Frank L. Whittaker, Cavalry</i>	
<i>By Lieutenant Colonel J. J. Bohn, Cavalry</i>		An Interesting Grazing Experience	356
SUPPLY BY AIR TO CAVALRY	324	<i>By 1st Lieutenant Don L. Deane, V.C.</i>	
<i>By Lieutenant Roy W. Cole, Jr., 8th Cavalry</i>		Camp Ord Stakes	357
ARMOR FOR HORSE CAVALRY RECONNAISSANCE VEHICLES?	327	A Commendable Road March	358
<i>By Major Clinton A. Pierce, 8th Cavalry</i>		TRADITIONS OF THE CAVALRY, II	359
OPPORTUNIST OPERATIONS	329	EDITOR'S SADDLE	360
<i>By James Anthony Reilly</i>		NOTES FROM THE CHIEF OF CAVALRY	362
DEFENSE AGAINST AIR ATTACK	332	GENERAL HAWKINS' NOTES	365
<i>By Captain Charles H. Noble, 2d Cavalry</i>		CAVALRY SCHOOL DIGEST OF INFORMATION	367
THE 1938 CAVALRY RIFLE AND PISTOL TEAM	335	BOOK REVIEWS	369
<i>By 1st Lieutenant F. Clay Bridgewater, 2d Cavalry</i>		GRADUATES OF THE CAVALRY SCHOOL, 1937-1938	372
LESSONS FOR TODAY FROM INDIAN CAMPAIGNS OF YESTERDAY	340	ORGANIZATION ACTIVITIES	373
<i>By Brigadier General H. S. Hawkins, Retired</i>			

PUBLICATION DATE: AUGUST 10, 1938

THE CAVALRY JOURNAL IS NOT RESPONSIBLE FOR OPINIONS EXPRESSED IN PUBLISHED CONTRIBUTIONS

\$3.00 per year, foreign postage 50c additional. Single copy: 50c

Publishing Office: 1406 East Franklin Street, Richmond, Va. Editorial Office: 1624 H Street, N.W., Washington, D. C. Entered as second class matter at Richmond, Virginia, under the Act of March 3, 1879 For mailing at Special Rate of Postage provided in Section 412, Act of October 3, 1917. Copyright, 1938, by the United States Cavalry Association.

Armor For Horse Cavalry Reconnaissance Vehicles?

By MAJOR CLINTON A. PIERCE, 8th Cavalry

In the present horse cavalry organization three types of armored vehicles are included. They are:

1. **Combat Cars:** Track-laying vehicles, with cross country mobility, armor and armament. These cars are included because they are fighting vehicles, intended to close with the enemy, frontally, on his flanks or rear. They are light tanks used to assist the horse cavalry to maneuver its fire power on the battlefield. From the missions expected of these cars there is no doubt that they require armor.

2. **Armored Cars:** Wheeled vehicles with great road mobility, armor and armament. They have no combat cross country mobility. These cars are included because they are reconnaissance vehicles, intended to search the roads available to the enemy and report the information thus collected. They are the distant ground eyes of the horse cavalry commander. After locating the enemy, possibly with the assistance of observation aviation, and reporting the required information, these cars can be used to delay the enemy by the use of their fire power and force the enemy to leave the roads and move cross-country. If no delay is directed, they can be sent on available roads to observe and report the situation on the hostile flanks and rear. These cars are not fighting vehicles. They are not intended to close with the enemy. To use a worn phrase, they "sneak, peek, shoot and run." They "sneak, peek and run" on reconnaissance missions, using their road mobility and the available road net to secure information. They "shoot" only when necessary, usually at long ranges, from road positions, to delay the enemy, harass him and make him deploy, and then they "run," before the enemy can close with them. Armored cars are the reconnaissance vehicles assigned for the use of the division commander.

3. **Scout Cars:** Wheeled vehicles with the same general characteristics as armored cars and the same missions. They are the horse cavalry regimental commander's reconnaissance vehicles. These cars "sneak, peek, shoot and run" as outlined for armored cars. They have no combat cross-country mobility. They are not fighting vehicles. The question to be answered is whether the reconnaissance vehicles, 2 and 3 above, need armor.

To arrive at a logical conclusion based upon the missions expected of these cars, the following points must be considered with reference to whether armor helps or hinders them:

a. *Mobility on roads.* Armor increases the weight of the car. With the powerful engines now available and with the relative slow speeds required on roads, it appears that the extra weight contributed by armor has little effect on the road speed of reconnaissance cars. Road mobility, then is not affected by the presence or absence of armor.

b. *Cross-country mobility.* The present types of reconnaissance cars are not good cross-country vehicles, primarily because of their great weight. This weight is appreciably affected by armor. If they had no armor they would be lighter and this loss of weight would contribute to an increase in cross-country mobility. Greater cross-country mobility would be a valuable asset for reconnaissance vehicles. Cross country mobility then would be helped if the armor was removed from reconnaissance cars.

c. *Visibility for observers.* The present type of reconnaissance vehicle is difficult to observe from unless the observer gets his head above the armor. The observation slits in the armored cars are inadequate and the observers are always seen with head and shoulders protruding from the turret. The scout cars are so designed that the observers usually stand up to observe. The head and shoulders are usually above the armor. Armor then does not contribute to better visibility for the observers.

d. *Use of fire power.* All reconnaissance vehicles have machine guns both caliber .30 and caliber .50. In the armored car and scout car the presence of armor constricts the deflection or rapid traverse of all weapons designed for use against an enemy on the ground. Without armor all guns could be mounted, possibly on pedestal mounts, to permit all-round traverse with more ease than at present. Armor then restricts the use of weapons on reconnaissance vehicles.

e. *Silhouette.* With or without camouflage, the present reconnaissance vehicles can be seen at a great distance. This is a disadvantage to a reconnaissance agency. This is due partly to the size of the cars. The size of these ve-

hicles is contributed to by armor. Without armor the cars could be made smaller. If they were smaller they could be seen less easily. Armor then contributes to the large silhouette of reconnaissance vehicles and is not a helpful characteristic.

f. *Gas and Oil Consumption.* The heavier the motor vehicle and the larger its power unit, the greater the fuel consumption. Armor adds to size and weight, thus increasing the consumption of fuel. The more fuel used per mile of travel the less range the vehicle has, and the more frequent are its refills. On reconnaissance the greater the range of the vehicles on one fill of gas and oil the more territory can be covered before the car has to return to a base of supplies. To remove the armor from these vehicles will lighten them, and permit a reduction in gas and oil consumption per mile. Armor, then, adds to gas and oil consumption and is a disadvantage.

g. *Replacement.* Replacement of matériel is necessary in war. The more complicated the piece of matériel, the harder it is to manufacture and thus replace. The addition of armor to reconnaissance vehicles causes an additional echelon in manufacture. This, then, slows up the speed of replacement. That cavalry reconnaissance vehicles will need to be replaced rapidly and in large numbers because of mechanical break-down and actual battle casualties, seems probable. Armor then will delay replacement. This is a disadvantage.

h. *Protection of Crew and Engine.* Armor is designed for protection against bullets. The race between armor and bullets has developed to the point where thick armor is necessary for absolute protection. The armor on cavalry reconnaissance vehicles is not thick enough to give absolute protection. If absolute protection is required the cars will doubtless become too heavy for the missions now assigned them.

Protection of the observers and engine, so that the information can be gathered and sent back is excellent, if the amount of armor decided necessary to provide protection does not make the vehicle so heavy and unwieldy as to defeat the execution of the mission.

Armor, then, on reconnaissance vehicles is an advantage, if it provides absolute protection for the observers and mechanical parts of the car. However, since the weight of armor to provide absolute protection will probably increase the weight of the cars to a point that will interfere with its missions, its advantage to horse cavalry is doubted.

i. *Morale factor for observers and crew.* The present armor on cavalry reconnaissance vehicles affects the morale of the crew. It breeds in the crew a disregard of enemy bullets. While this is laudible it can work to the detriment of the crew. It furnishes an unwanted incentive to "fight the cars." To use the cavalry reconnaissance

cars as combat cars is a definite violation of the reasons for the cars' existence in horse cavalry.

Again, the armor on the present cars is not of sufficient thickness to provide protection. If, by the presence of this armor, the crew becomes too enthusiastic and too bold, unnecessary casualties, both men and cars, can be predicted.

It is believed that the cars, if unarmored, would not be used as mobile machine gun nests, but would be maneuvered, by the car commanders with a strict regard to the capabilities of enemy fire.

Armor then, as a morale factor is of doubtful value.

Conclusions:

If the present armor on cavalry reconnaissance cars is of no great assistance, as outlined in the preceding statements, why have armor at all?

Armor of great thickness cannot advantageously be placed on these cars without materially reducing their value as reconnaissance agencies.

The only possible place that heavy armor, affording absolute protection, can profitably be used is around the power unit. The advantage of this amount of armor is doubtful. If replacement of the cars can be made quickly, the necessity of armored power-units is as unnecessary on reconnaissance cars as on supply trucks.

The question of replacement assumes large proportions. A solution would be to adopt a standardized make of light four-wheel drive truck of a ton or ton and one-half capacity. To add to its ease of replacement, eliminate the armor and the other gadgets that now tend to make the reconnaissance vehicles "fighting" or combat cars. Cut down the silhouette by reducing the size of the car to accommodate a crew of a driver and an observer who can fire a machine gun and work a radio. Cut out the large driver's cab and the high sides of the car. Install a simple pedestal mount that can accommodate one or two machine guns that then can have all-around traverse. Put the radio under the instrument board as they now do in private cars and police cars. Have a large gas tank and a large reserve oil container.

In short, if the cavalry reconnaissance cars, by elimination of armor, can:

- a. Increase road mobility
- b. Reduce silhouette
- c. Increase visibility for observers
- d. Decrease fuel consumption per mile, thus increasing the range
- e. Increase the effectiveness of weapons
- f. Increase the speed and ease of replacement
- g. Increase cross country mobility
- h. Reduce the temptation to use reconnaissance cars as fighting vehicles,

why not eliminate armor from horse cavalry reconnaissance vehicles?