

# LONE OCCUPANT VEHICLE SYSTEM

CONCEPT OF OPERATION: BY WILLIAM FRANK JOHNSON

THE LONE OCCUPANT VEHICLE (L.O.V.) SYSTEM CONSIST OF L.O.V.'S AND THE L.O.V. THOROUGHFARE. THE LONE OPERATOR OCCUPANT DEPARTS HOME BASE WITH A FULLY CHARGED BATTERY TO POWER THE ELECTRIC D.C. MOTOR TO THE L.O.V THOROUGHFARE. UPON ENTERING THE THOROUGHFARE THE OPERATOR ENGAGES THE STEERING TONGUE WITH THE OVERHEAD TROUGH AND ENGAGES THE STEERING TONGUE DRIVE SHAFT MITRE GEAR WITH THE RACK AND PINION STEERING MITRE GEAR. THE OVERHEAD TROUGH SUPPLIES ELECTRIC POWER TO THE L.O.V. MOTOR AND TO RECHARGE THE BATTERY THROUGH AN ELECTRODE ON THE L.O.V. STEERING TONGUE THAT IS IN CONTACT WITH A POWER BUSS MOUNTED ON THE UNDER SIDE OF THE OVERHEAD TROUGH. AN OPTICAL SENSOR MOUNTED ON THE FRONT OF THE L.O.V. (NOT SHOWN) WILL SIGNAL THE MOTOR CONTROLLER TO REVERSE THE CHARGE IF APPROCHING A FOWARD L.O.V. TO AVOID CONTACT. TO DIVERT FROM ONE LEG OF THE THOROUGHFARE TO ANOTHER, A LIGHT EMITTING DIODE (L.E.D.) ON THE STEERING TONGUE WILL BE ACTIVATED BY THE OPERATOR TO SIGNAL A SENSOR ON THE OVERHEAD TROUGH TO ACTIVATE A SOLENOID TO PIVOT THE DIVERTER. UPON EXITING THE L.O.V. THOROUGHFARE THE L.O.V. TONGUE IS LOWERED TO IT'S ORIGINAL POSITION AND THE STEERING TONGUE DRIVE SHAFT MITRE GEAR IS DIS-ENGAGED.

LONE OCCUPANT VEHICLE (L.O.V.)  
CHASSIS

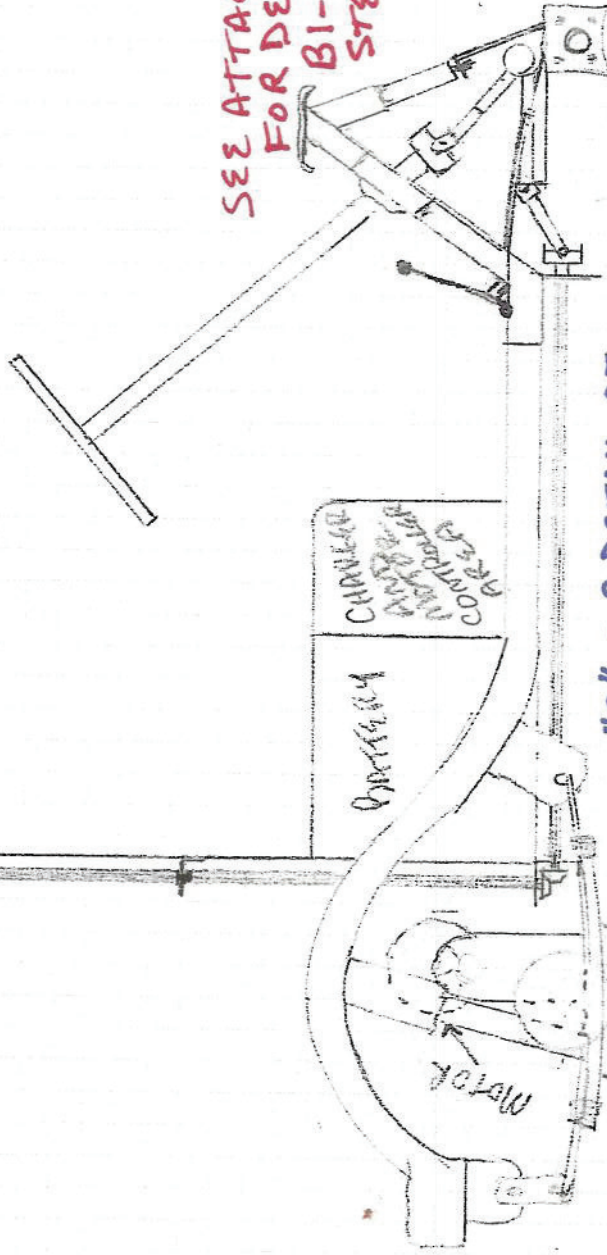
SIDE  
VIEW

(NOT TO SCALE)

SEE ATTACHMENT "B" FOR DETAIL  
OF STEERING TONGUE

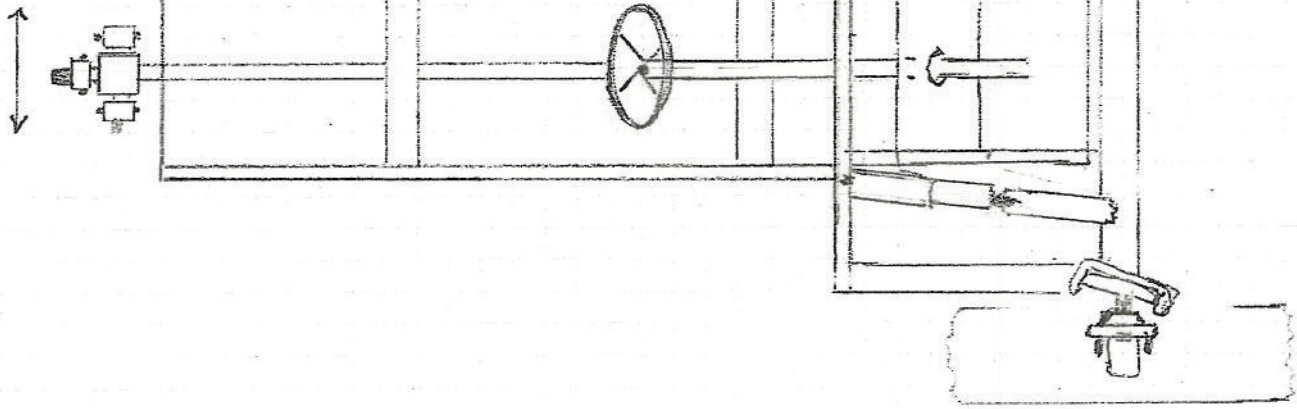
SEE ATTACHMENT "A"  
FOR DETAIL OF  
BI-CONTROL  
STEERING

SEE ATTACHMENT "C" FOR DETAIL OF  
STEERING TONGUE DRIVE TRAIN

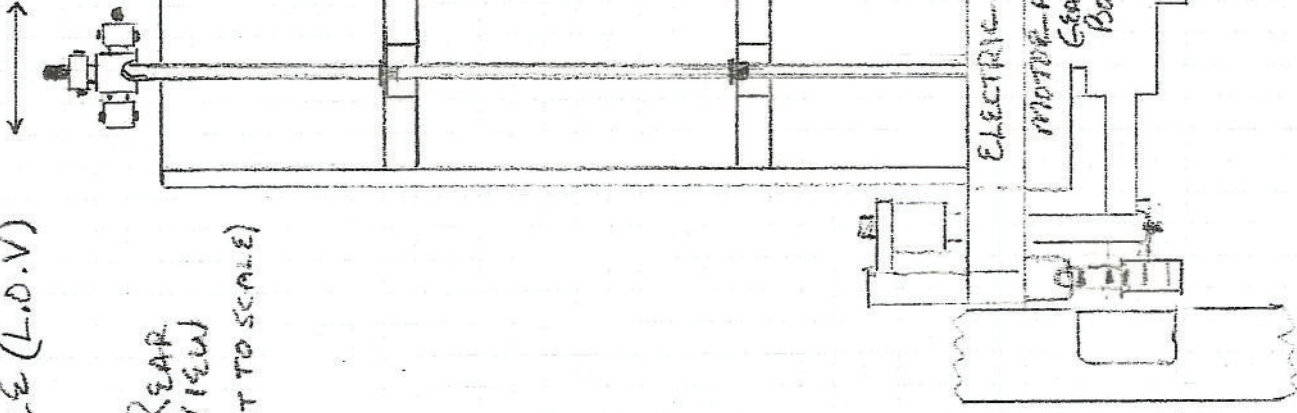


CONCEPT OF:  
WILLIAM FRANK  
JOHNSON

LONE OCCUPANT VEHICLE (L.O.V)  
CHASSIS



FRONT VIEW  
(NOT TO SCALE)

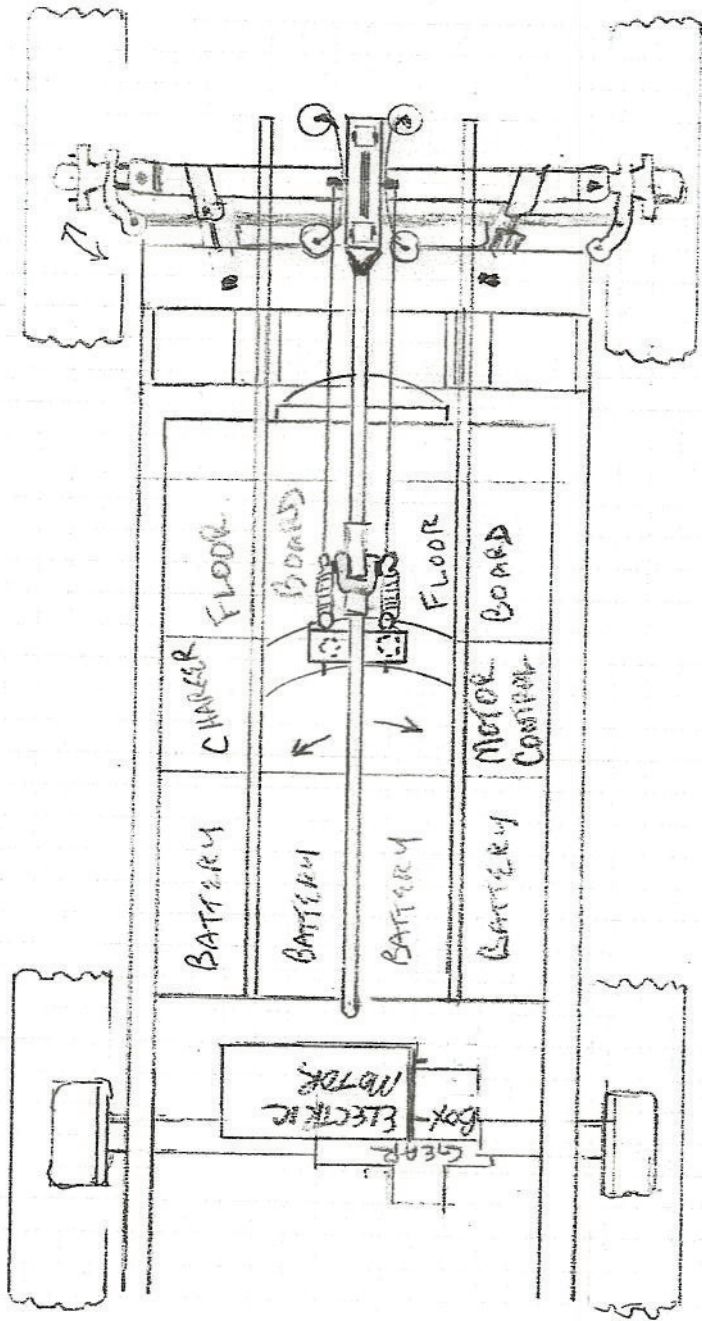


REAR VIEW  
(NOT TO SCALE)

CONCEPT OF:  
WILLIAM FRANK  
JOHNSON

ONE OCCUPANT VEHICLE (L.O.V)  
CHASSIS

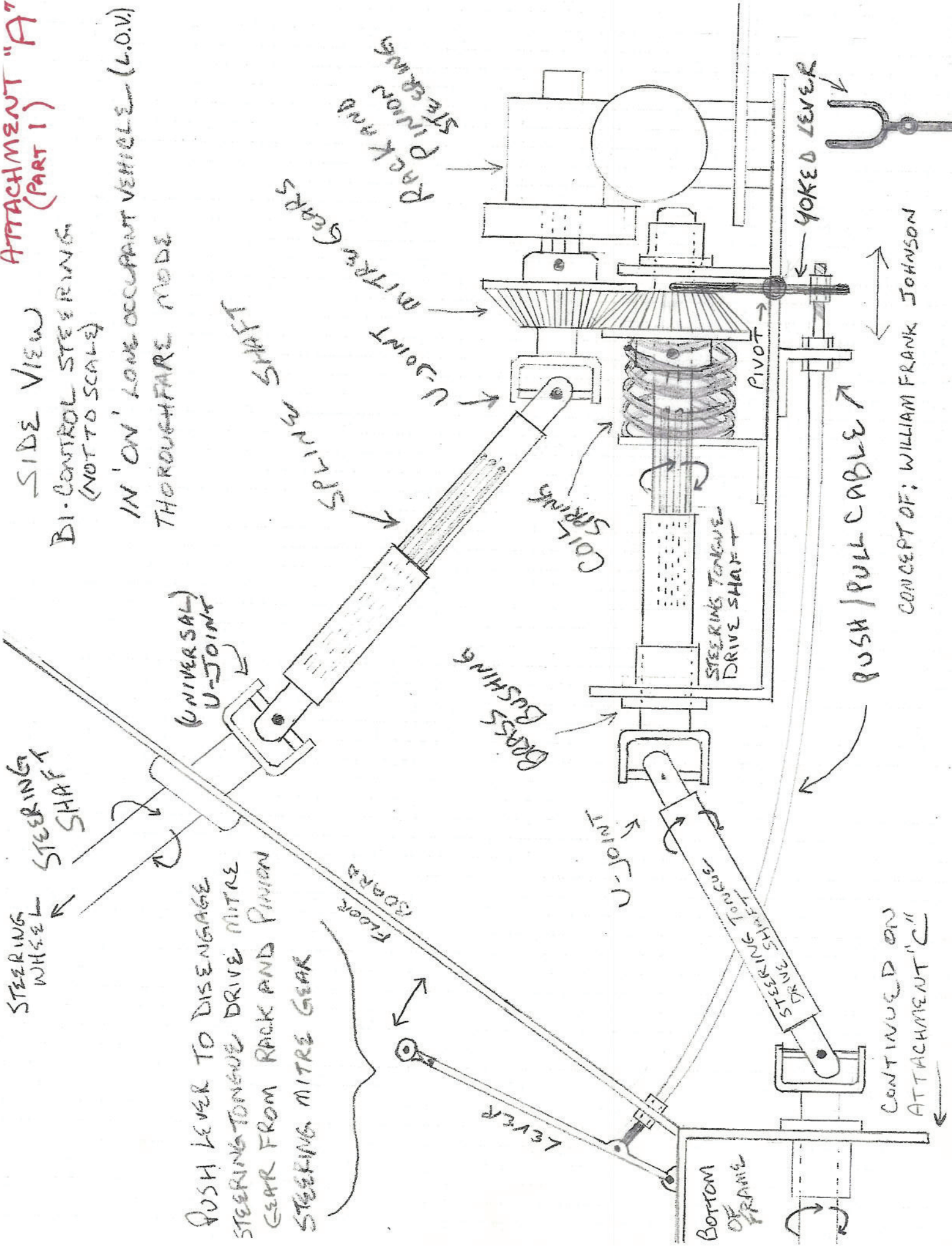
TOP  
VIEW  
(NOT TO SCALE)



CONCEPT OF:  
WILLIAM FRANK  
JOHNSON

**ATTACHMENT "A"**  
**(PART 1)**

SIDE VIEW  
BI-CONTROL STEERING  
(NOT TO SCALE)  
IN 'ON' LOW OCCUPANT VEHICLE (L.O.V.)  
THROUGHFARE MODE



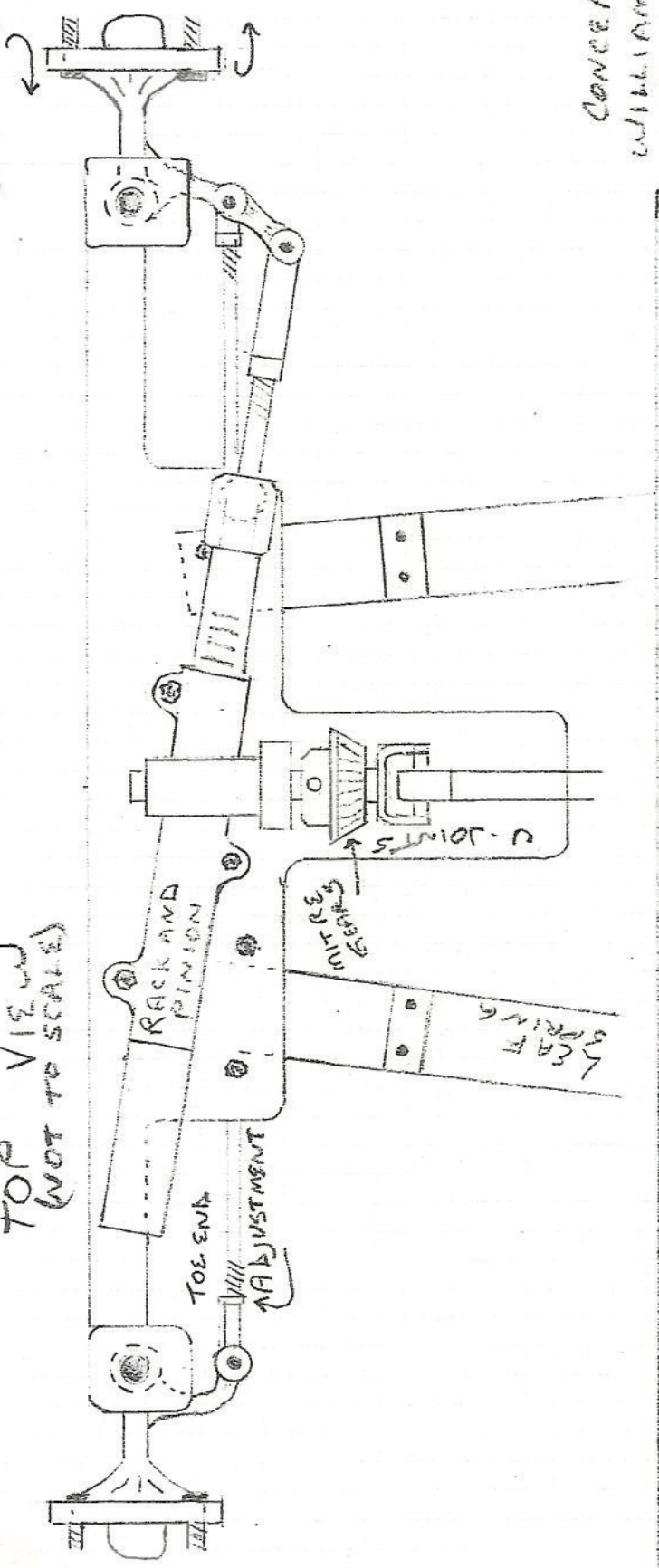
PUSH LEVER TO DISENGAGE  
STEERING TONGUE DRIVE MITRE  
GEAR FROM RACK AND PINION  
STEERING MITRE GEAR

CONTINUED ON  
ATTACHMENT "C"

CONCEPT OF: WILLIAM FRANK JOHNSON

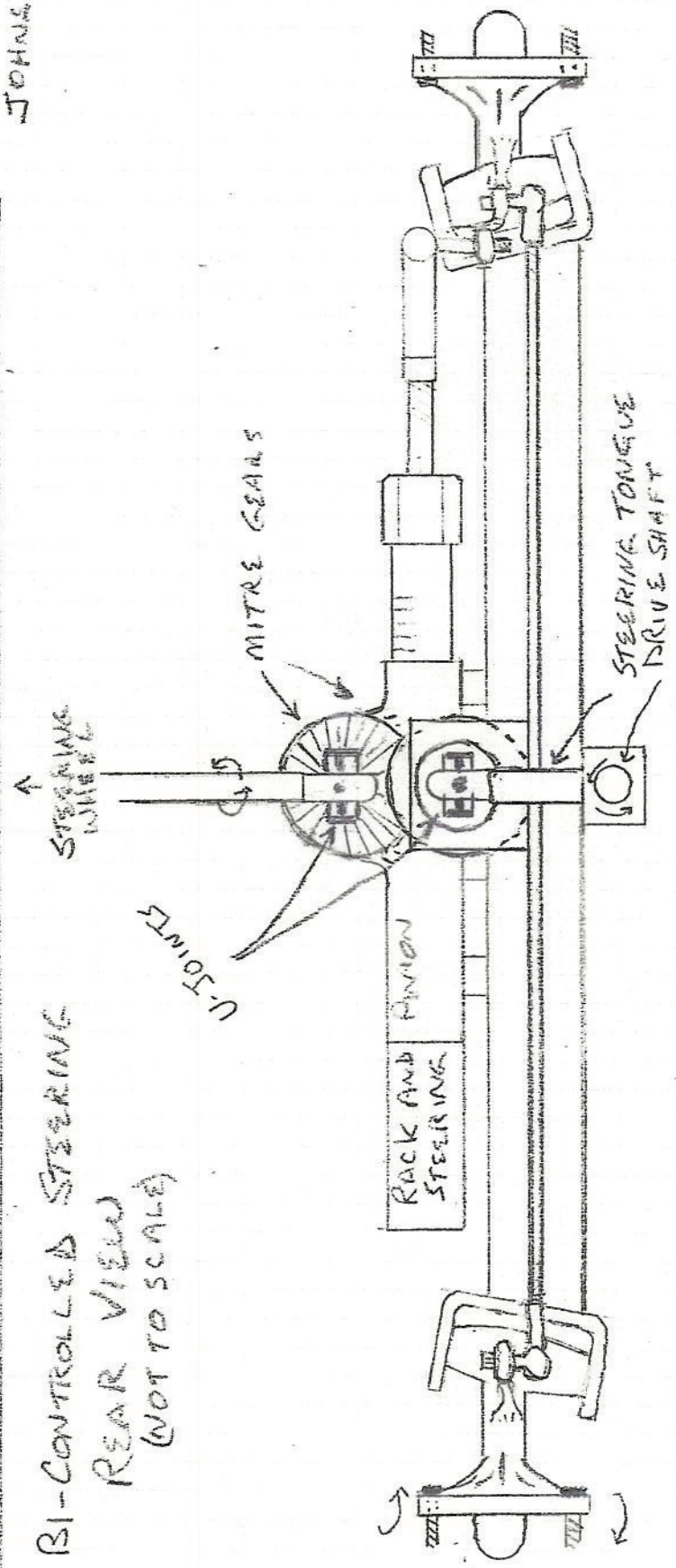
ATTACHMENT "A"  
(PART 2)

BI-CONTROLLED STEERING  
TOP VIEW  
(NOT TO SCALE)



CONCEPT OF:  
WILLIAM FRANK  
JOHNSON

BI-CONTROLLED STEERING  
REAR VIEW  
(NOT TO SCALE)



ATTACHMENT "B"  
(PART I)

SIDE VIEW  
STEERING TONGUE  
(NOT TO SCALE)

ONE OCCUPANT VEHICLE (L.O.V) STEERING TONGUE  
SHOWN IN OFF L.O.V. THOROUGHFARE MODE

CONTINUED ON  
ATTACHMENT  
"C"

COIL SPRINGS  
CLEVIS

ROOF OF VEHICLE

HANDLE  
GRIP

PULLEY

PULL HANDLE TO DISENGAGE STEERING TONGUE  
WITH THOROUGHFARE OVERHEAD TROUGH WHEN EXITING  
L.O.V. THOROUGHFARE. SHOWN IN OFF L.O.V. THOROUGHFARE MODE

L.E.A. TO ACTIVATE  
THROUGH DIVERTER

ELECTRONE

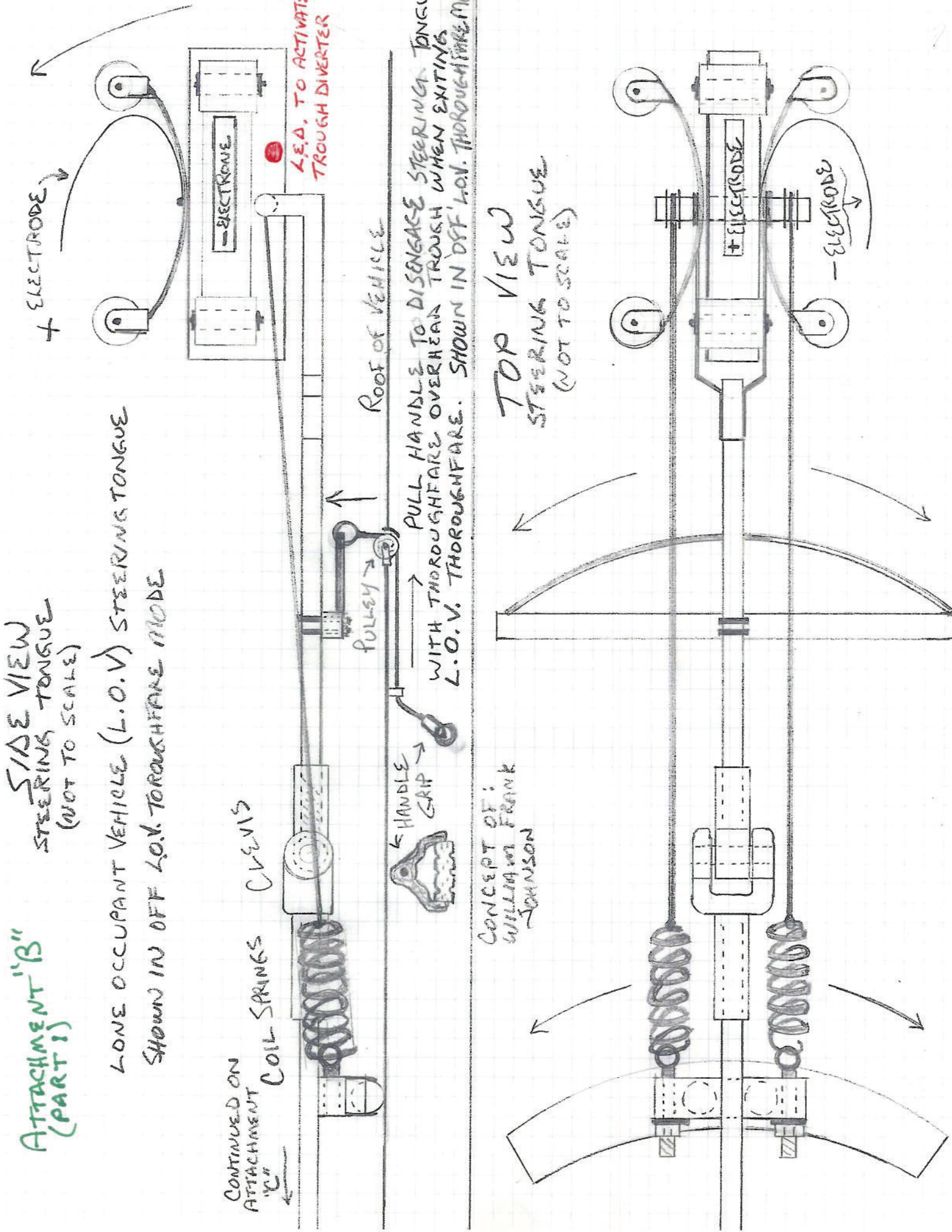
+ ELECTRODE

CONCEPT OF:  
WILLIAM FRANK  
JOHNSON

TOP VIEW  
STEERING TONGUE  
(NOT TO SCALE)

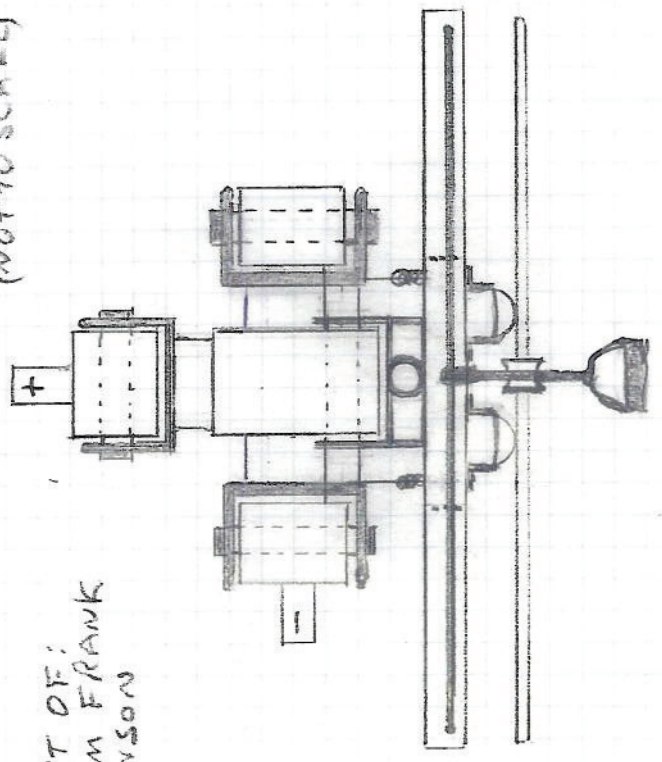
ELECTRODE

ELECTRONE



FRONT VIEW  
STEERING  
TONGUE  
(NOT TO SCALE)

CONCEPT OF:  
WILLIAM FRANK  
JOHNSON



ATTACHMENT "B"  
(PART 2)



ATTACHMENT  
"C"

STEERING TONGUE  
DRIVE SHAFT

CONTINUED ON  
ATTACHMENT "B"

STEERING TONGUE  
DRIVE TRAIN  
(NOT TO SCALE)

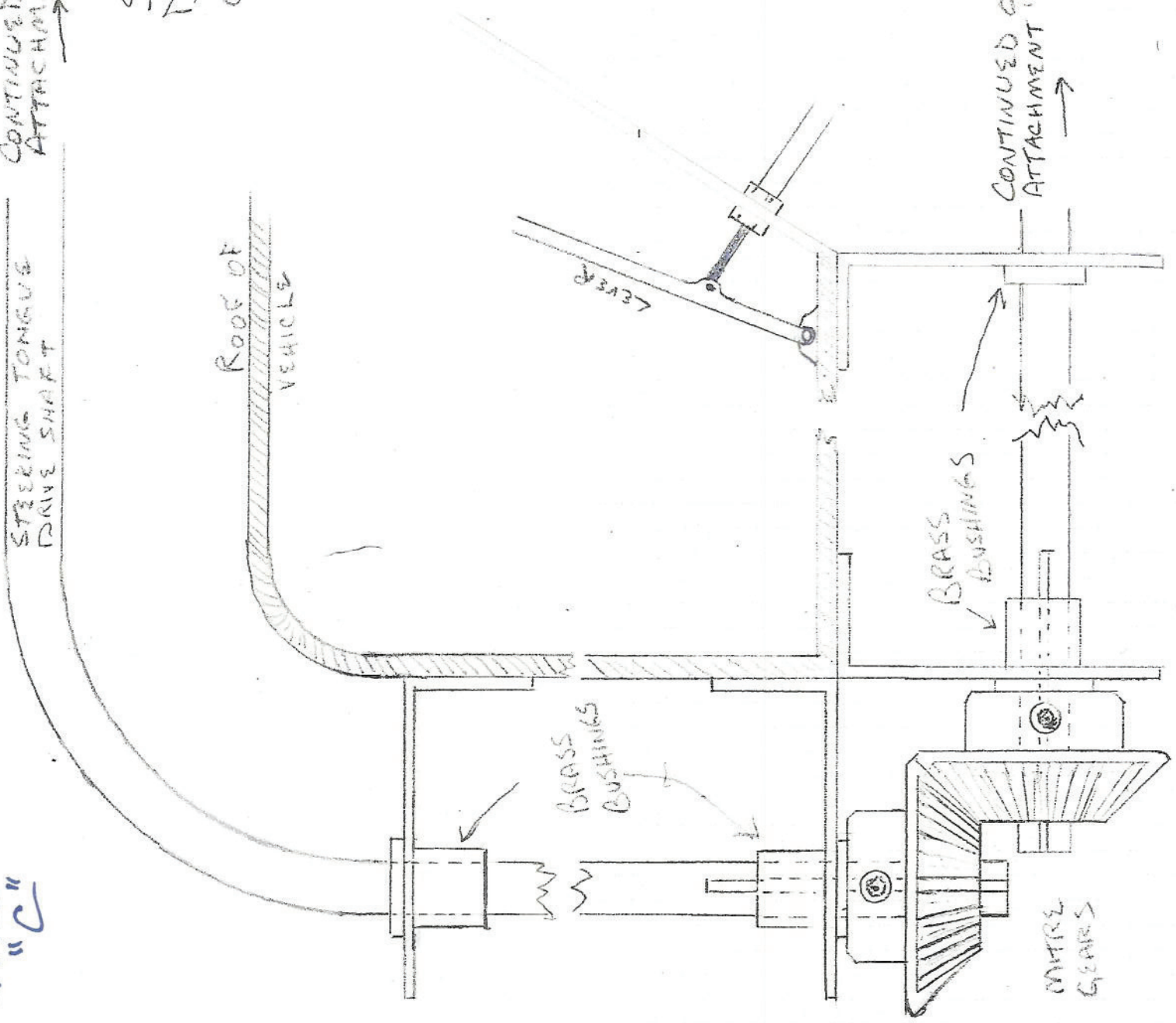
ROOF OF  
VEHICLE

BRASS  
BUSHINGS

BRASS  
BUSHINGS

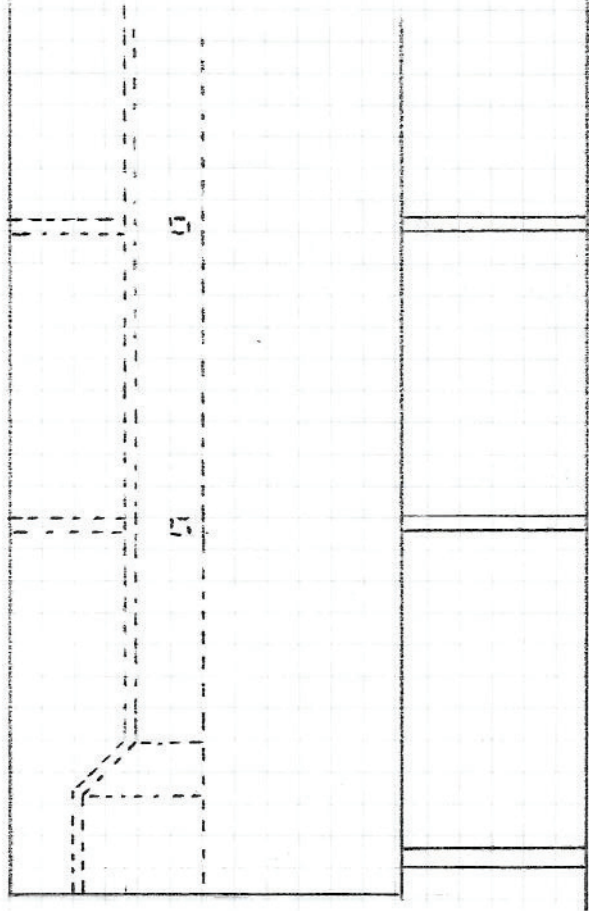
MIRE  
GEARS

CONTINUED ON  
ATTACHMENT "A"



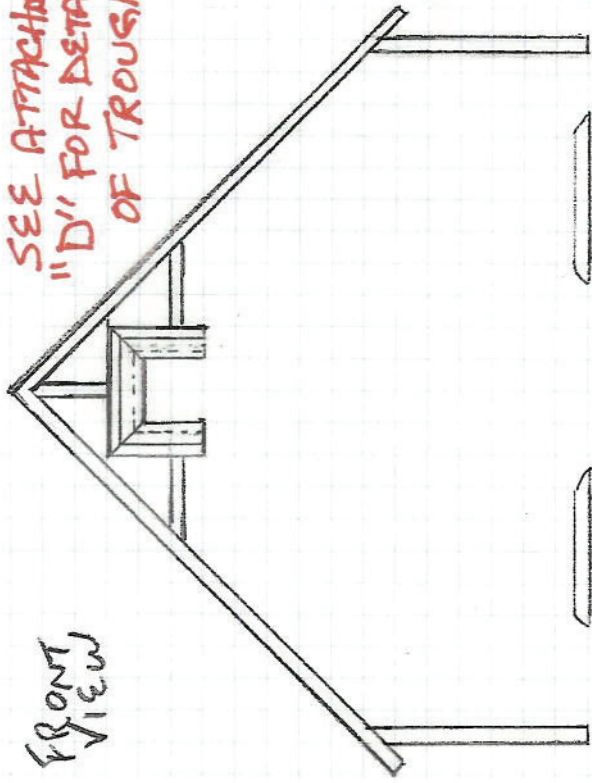
CONCEPT OF:  
WILLIAM FRANK  
JOHNSON

SIDE VIEW



SEE ATTACHMENT  
"D" FOR DETAIL  
OF TROUGH

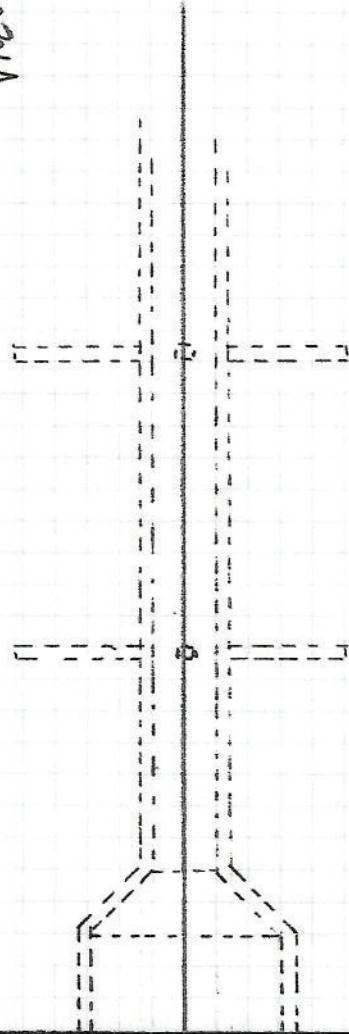
FRONT  
VIEW



LONE OCCUPANT VEHICLE (LOV)  
THROUGH FARE  
(NOT TO SCALE)

CONCEPT OF:  
WILLIAM FRANK  
JOHNSON

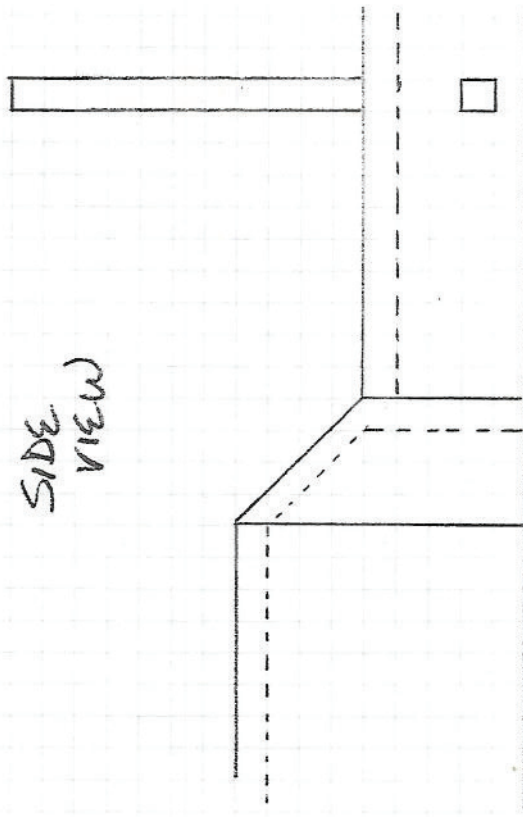
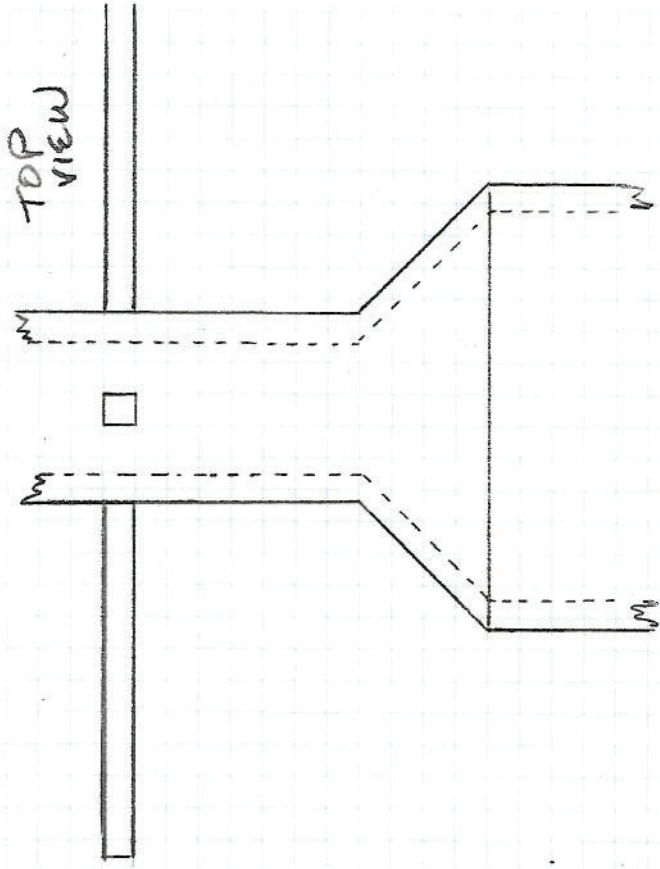
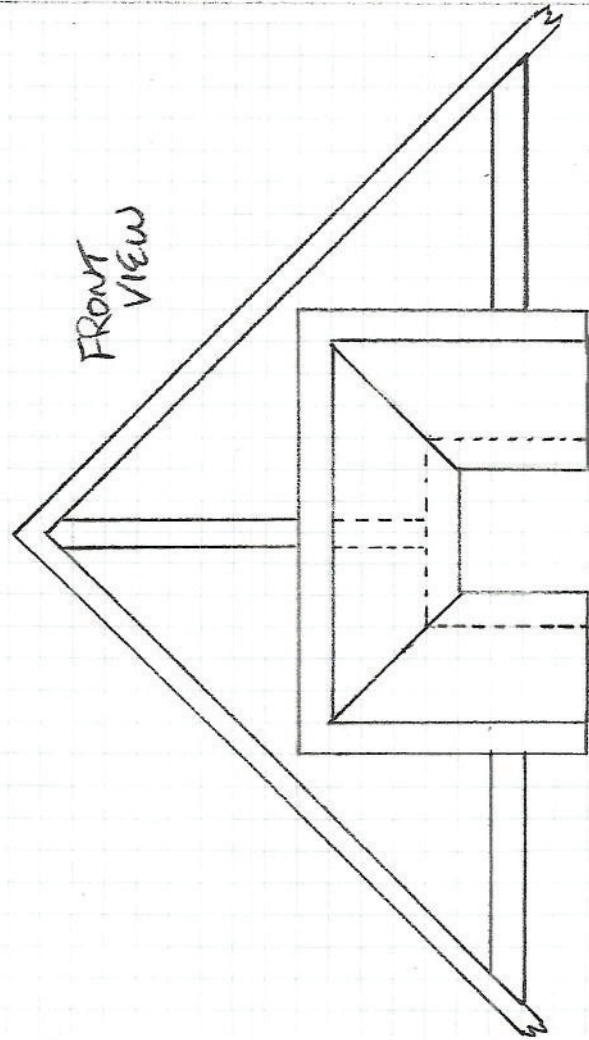
TOP  
VIEW



# ATTACHMENT "D"

DETAIL OF OVERHEAD TROUGH

CONCEPT OF: WILLIAM FRANK JOHNSON  
ENTRANCE TO TROUGH ENLARGED TO FUNNEL STEERING TONGUE OF VEHICLE INTO TROUGH.



LONE OCCUPANT VEHICLE (L.O.V)  
THROUGHFARE TROUGH DIVERTER

CONCEPT OF:  
WILLIAM FRANK  
JOHNSON

SOLENOID

SOLENOID

SENSOR

SENSOR

