

Sir,

I have the honor to acquaint you for the information of the Lords of the Committee of Privy Council for Trade, that in obedience to the instructions contained in your letter of the 22nd Instant, I yesterday inspected the Permanent Bridge carrying the Worcester and Hereford Railway over the River Severn at Worcester.

This Bridge is constructed to carry a double Line of Railway and it consists of two spans of 120 feet with an intermediate pier in the center of the River 9 feet thick. These openings are spanned by four cast-iron arched girders, one under each rail - the vertical sine of the arch being 14 feet - a continuous girder resting on the crown of the arch and on the uprights springing from ^{the arch} throughout the whole length. Six inch Planking is laid ^{and spiked,} transversely to these girders, and the rails are carried by ^{logs} longitudinal sleepers placed on a thin bed of gravel ^{lying} placed on the 6 inch Planking - each longitudinal ^{sleeper} being directly over ^{the} iron girder.

The piers and abutments are built of stone.

A temporary hand rail of wood had been partly

Captain Galtre Albany

to - - - to - - - to

put up - and the fixing of a wooden check rail,
inside the permanent rails had been commenced; but
the road way for one line of rails had only been
laid in on the previous day, so that it was not
consolidated ~~and~~ ^{or} sufficiently packed -

A Train of 3 Locomotive Engines and Tenders
was placed on one Line and a ballast Train
sufficiently long to cover one of the spans on the other
^{it was} ~~it was~~ ^{estimated to average 1 Ton per foot lineal in weight,}
for the purpose of testing the stability of the Bridge.
But as the deflections ~~showed~~ ^{produced by} these weights
were largely in excess of what I had expected to find,
and as the deflection of the East arch nearly doubled
that of the West arch - such deflections being accompanied
with a considerable horizontal movement in the
direction of the length of the girders, I requested Mr.
Richards (the Engineer) to cause the iron work to be
thoroughly overhauled, to ascertain that the bolts
which fasten the separate portions of the arched
girder were tightly screwed up, and when that is
completed I propose carefully to examine and
test the Bridge again -

In the mean time, I have to report that, by reason
of the incompleteness of the works, the opening of
the permanent Bridge for carrying the Worcester and

Gloucester Railway over the River Severn cannot be
sanctioned without danger to the Public using the
same -

I have the honor to be

Sr,

Your most obedient servant

W. Holland (Chanc.,)

Royal Engineer