

Fig. 2. Effect of temperature on the strain and strain recovery in beech-wood loaded with equal compressive force of 120 per cent σ_D in the tangential direction

In view of these facts, the problem of dividing apparent plastic strains in wood into thermo-elastic and real plastic strains is of great importance.

On the basis of these experiments we propose the partition of strain recovery in wood according to the scheme presented in Fig. 3. Only those strains

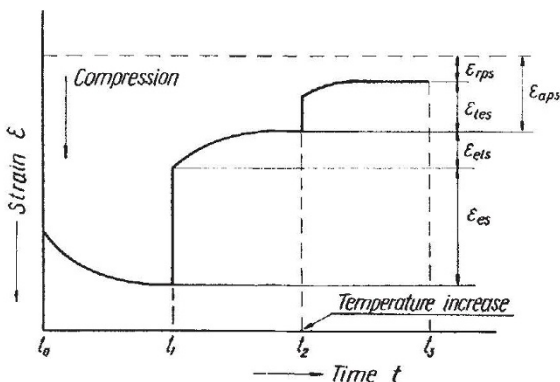


Fig. 3. Scheme of the course of the plastic phenomenon in wood. ϵ_{es} , Elastic strain; ϵ_{aps} , apparent plastic strain; ϵ_{els} , elastic lagged strain; ϵ_{les} , thermo-elastic strain; ϵ_{eps} , real plastic strain

which remain after the first thermoplastic effect can be considered as the real plastic strains (ϵ_{eps}). It was experimentally corroborated that further increase of temperature, for example in time t_2 (Fig. 3), results in very little, if any, increase of strain recovery. In order to determine the value of real plastic strain caused by compression of moist wood across the fibre direction, it is sufficient, it seems, to separate the thermoplastic strain (ϵ_{les}) from apparent plastic strain (ϵ_{aps}) by accelerating strain recovery by raising the temperature of the wood.

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MISCELLANEOUS

Philosophical Transactions of the Royal Society

IN connexion with Dr. Wightman's article in *Nature* of Oct. 7, p. 23, on the relationship between the Royal Society and the *Philosophical Transactions* in the seventeenth and early eighteenth centuries and his emphasis on the unofficial character of the *Transactions*, it may be interesting to note that the abridgement of these up to the year 1700, prepared by John Lowthorp, appears to have been officially sponsored by the Society. The fly-leaf of the third edition, printed in 1722 after the publication in the preceding year of a further abridgement of the *Transactions* for the years 1701-20 by Benjamin Motte, carried the following advertisement:

"May 5, 1703. At a meeting of the Royal Society, Sir John Hoskyns, V.P. in the chair, Mr. Lowthorp Presented a Proposal for printing an Abridgement of the *Philosophical Transactions*. This Design was Approved by the Society and He was Desir'd to proceed therein."

This is followed by the subscription:

"May 12. 1705

Impimatur

Is. Newton, R.S.Pr."

(Lowthorp's name is so misspelt and the 'r' omitted from the word 'imprimatur' in my copy.)

In contrast, the abridgement by Motte carries only a commendatory notice, dated July 26, 1720, signed "Edm. Halley, Secr. Reg. Soc."

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