The GWR Mixed Traffic 4-6-0 Classes

O.S.Nock



O.S.Nock

LAN

The Gwr Mixed Traffic 4 6 0 Classes

Allen Jackson

The Gwr Mixed Traffic 4 6 0 Classes:

The GWR Mixed Traffic 4-6-0 Classes Oswald Stevens Nock,1978 GWR Locomotives: The Manor Class Allen Jackson,2019-10-15 A fascinating and lavishly illustrated guide to this iconic Great Western Railway locomotive Manor Class

Southern Railway, Lord Nelson Class 4-6-0s Tim Hillier-Graves, 2020-09-19 The Lord Nelson Class has come to be viewed as an also ran amongst express locomotives and is largely overlooked for that reason It had the misfortune to be sandwiched on Southern metals between the classic and much revered King Arthurs and Schools and by Bullied s controversial Pacifics In such company any design might suffer by comparison And yet when first appearing they attracted plaudits from railway professionals including the footplate crew and the public alike But with only 16 being built their impact was muted and any faults in their design were magnified beyond their actual impact In truth they deserved far better than this and were in fact sturdy reliable performers that served the company well on the heavy boat trains for which they were designed and across their other passenger services for 30 years and more in peace and war Much has been written about these locomotives but no story is ever complete with new information and photographs emerging to deepen our understanding of them This book provides an in depth view that re examines these impressive engines using new material eye witness accounts contemporary assessments and more than 200 photographs and drawings The Locomotive News and Railway Contractor ,1919 **The GWR Bristol to Bath Line** Colin Maggs, 2012-05-15 A new edition of a classic history of the railway line between Bristol and Bath illustrated with over 200 pictures LMS/BR Class 7 4-6-0 Rebuilds David Clarke, 2014-02-28 A comprehensive look at the LMS BR Class 7 4 6 0 rebuilt locomotives including the rebuilt Jubilees the rebuilt Patriots and the rebuilt Royal Scots The book includes hundreds of photographs and feedback from the original crews that operated the engines Contents include Origins of the rebuilt Class 7s in the 1940s and the design of the 2A boiler Differences between the classes Liveries names and name plates Detailed allocation tables Rebuilt Class 7s to the rescue the severe winter of 1962 3 Decline of the Class 7s and withdrawal in the 1960s Preservation of the Class 7 rebuilds Essential reading for all locomotive enthisiasts illustrated with 240 colour photographs and includes feedback from the original crews

The GWR Handbook David Wragg,2017-08-01 For many the GWR was synonymous with holidays by the sea in the West Country but it was built to serve as a fast railway line to London especially for the merchants and financiers of Bristol Its operations stretched as far as Merseyside it provided most services in Wales and it was the main line to Cardiff Bristol Cornwall and Birmingham This book a classic first published in 2006 reveals the equipment stations network shipping and air services bus operations including Western National and overall reach and history of the GWR Forming part of a series along with The LMS Handbook The LNER Handbook and The Southern Railway Handbook this new edition provides an authoritative and highly detailed reference of information about the GWR GWR Locomotives: The Hall Class Allen Jackson, 2019-11-15 A fascinating illustrated insight into this iconic Hall Class of locomotuves used by the Great Western

Railway Steam Around Basingstoke and Salisbury Charlie Verrall, 2017-04-15 Charlie Verrall explores the fascinating history of steam around Basingstoke Eastleigh and Salisbury The Railway Magazine ,1928 **Train** DK.2014-10-01 This glorious visual celebration of train travel keeps you on the right track with stop offs at the most important and incredible rail routes from all over the world Your first stop in The Train Book is the groundbreaking steam locomotives of the 19th century and your final destination is the high speed bullet trains of today From the Union Pacific Railroad to the Trans Siberian Railway you ll cross the continents to experience epic journeys and staggering scenery You ll pick a seat on the most iconic locomotives including the Orient Express the Blue Train and the Eurostar You can also inspect the engines of famous British trains such as Rocket Mallard and Javelin and international trains such as India s Palace on Wheels and America s Thatcher Perkins You ll meet the true pioneers of train and track including Father of the Railways George Stephenson engineering legend Isambard Kingdom Brunel and M tro maestro Fulgence Bienven e For train spotters and transport enthusiasts everywhere this is your trip of a lifetime An Introduction to Great Western Locomotive Development Jim Champ, 2018-02-28 The first thought when contemplating a new study of the Great Western Railway locomotive fleet must surely be to ask what can there be left to say But there is no single source which gives a general introduction to the Great Western locomotive fleet There are monographs on individual classes an excellent multi volume detail study from the RCTS and superb collections of photographs but nothing that brings it all together This work is intended to provide that general introduction The volume begins with a series of short essays covering general trends in design development whilst the main body of the volume covers individual classes For each class there is a small table containing some principal dimensions and paragraphs of text covering an introduction renumbering key changes in the development of the class and information on withdrawal The volume concludes with appendices covering the development and types of standard boilers the various numbering schemes used by the GWR the arcane subject of locomotive diagrams and lot numbers and a short reference on the many lines the GWR engulfed The majority of illustrations are new profile drawings to a consistent format Described as sketches they are drawn to a consistent scale but do not claim to be scale drawings Much minor equipment has been omitted and the author has certainly not dared to include rivets Although most are based around GWR weight diagrams they are not simple traces of the original drawings Detail has been added from other sources components copied from different drawings and details have been checked against historical and modern photographs One must also bear in mind that steam locomotives were not mass produced Minor fittings frequently varied in position and changes were made over the locomotives lifetimes Nevertheless this collection of drawings provides a uniquely consistent view of the GWR locomotive fleet <u>Classic British Steam Locos</u> compiled from Wikipedia entries and published byby DrGoogelberg, 2012-06-11 do you want to know everything on steam locos how they work Read about the technology and lots of steam locos like the flying Scotsman Compiled from Wikipedia pages and published by dr Googelberg 200 Years of Locomotive Development

Richard Marks, 2026-04-28 Since Richard Trevithick's first forays into the development of the steam locomotive Britain's engineers have been at the forefront of railway technology Often innovative and sometimes unfairly maligned the country s locomotive engineers continually broke new barriers in traction technology although not everything was successful From the earliest simple steam locomotives to the latest diesel and electric engines Britain had led the way in railway locomotion although competition from European Japanese and American manufacturers sometimes exceeded what British engineers had achieved In this new book industrial and railway historian Dr Richard Marks provides fresh insights into Britain's role in railway locomotive design and technology and examines the highlights of British developments from Trevithick s Coalbrookdale locomotive to the Brush Class 60 diesel locomotive Based upon new research this useful primer aims to start the reader on a journey of discovery unravelling some of the myths which have arisen around Britain's railway history and explaining in an easy to follow narrative why some potentially advantageous developments failed to live up to expectations In this new survey of 200 years of British locomotive history to accompany the Railway 200 celebrations the reader is presented with a compelling and easy to read introduction to a complex but intriguing subject GWR Locomotives: The Prairies Allen Jackson, 2022-11-15 The latest volume in Allen Jackson's series examining the locomotives of the Great Western Railway Profusely illustrated throughout The British Steam Railway Locomotive, 1925-65 Oswald Stevens Nock, 1966

British Steam Locomotives Before Preservation Malcolm Clegg, 2020-07-30 A pictorial history of the British locomotives now part of the national collection detailing their working lives and their preservation British Steam Locomotives Before Preservation covers the history in pictorial form of steam locomotives that are now preserved as part of the national collection Those which can be found in private collections and the ones which adorn the various heritage railways which operate throughout Britain The book looks at each subject both in its working life and during its subsequent preservation The pictorial content covers a wide swathe of Britain during the years before the heritage locomotives were earmarked for preservation Praise for British Steam Locomotives Before Preservation The book does exactly what it says on the cover and is recommended for anyone with an interest in UK standard gauge steam The photographs include not only locomotives but also trains in some very interesting settings which adds to the enjoyment of a well researched offering Recommended Next one please Ffestiniog Railway Magazine The Last Days of British Steam Malcolm Clegg, 2020-11-06 A treasury of photos capturing the end of an era in transportation history the final decade of steam locomotives in Britain Malcolm Clegg has been taking railway pictures since the early 1960s and also enjoys access to collections taken by friends who were recording the steam railway scene during this period In this book he covers a wide variety of classes of locomotives that were withdrawn during the last decade of steam traction examples of some of which are now preserved This book is a record of his and other peoples journeys during the last decade of steam in the 1960s with photographs and informative captions looking at steam traction in a wide variety of geographical locations around the British Railways network **Great Eastern**

Railway Magazine London and North Eastern Railway,1918 The Locomotives of Robert Riddles Colin Boocock,2023-11-09 The Locomotives of Robert Riddles guides the reader in the quest to understand how Robert Riddles career on the LMS and in war service shaped his knowledge and character and led to him becoming the obvious choice for leading the locomotive engineering function within the newly formed Railway Executive The book outlines the substantial impact Riddles had on the design and supply of locomotives that were to support the Allied military campaigns in the second world war including useful analysis of the types of locomotives specifically designed for that work The bulk of the book outlines the decision making processes that led to the twelve designs of standard steam locomotives that were intended to be the future stop gap before electrification and the political and practical reasons for successive policy changes that led to their unexpectedly short lives Those events include the 1955 Modernization Plan with its emphasis on dieselization and the subsequent railway rationalizations that reduced the need not only for new steam locomotives but also made relatively new diesels redundant Each BR standard locomotive type is described in its own chapter The performance of each class is given its rightful emphasis The book is comprehensively illustrated with largely unpublished pictures that cover a wide range of locations and locomotive duties

Delve into the emotional tapestry woven by Crafted by in Experience **The Gwr Mixed Traffic 4 6 0 Classes**. This ebook, available for download in a PDF format (Download in PDF: *), is more than just words on a page; itis a journey of connection and profound emotion. Immerse yourself in narratives that tug at your heartstrings. Download now to experience the pulse of each page and let your emotions run wild.

https://archive.kdd.org/results/publication/index.jsp/The Festive Decorations The Miniature Series.pdf

Table of Contents The Gwr Mixed Traffic 4 6 0 Classes

- 1. Understanding the eBook The Gwr Mixed Traffic 4 6 0 Classes
 - The Rise of Digital Reading The Gwr Mixed Traffic 4 6 0 Classes
 - Advantages of eBooks Over Traditional Books
- 2. Identifying The Gwr Mixed Traffic 4 6 0 Classes
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
- 3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an The Gwr Mixed Traffic 4 6 0 Classes
 - User-Friendly Interface
- 4. Exploring eBook Recommendations from The Gwr Mixed Traffic 4 6 0 Classes
 - Personalized Recommendations
 - The Gwr Mixed Traffic 4 6 0 Classes User Reviews and Ratings
 - The Gwr Mixed Traffic 4 6 0 Classes and Bestseller Lists
- 5. Accessing The Gwr Mixed Traffic 4 6 0 Classes Free and Paid eBooks
 - The Gwr Mixed Traffic 4 6 0 Classes Public Domain eBooks
 - The Gwr Mixed Traffic 4 6 0 Classes eBook Subscription Services
 - The Gwr Mixed Traffic 4 6 0 Classes Budget-Friendly Options

- 6. Navigating The Gwr Mixed Traffic 4 6 0 Classes eBook Formats
 - o ePub, PDF, MOBI, and More
 - The Gwr Mixed Traffic 4 6 0 Classes Compatibility with Devices
 - The Gwr Mixed Traffic 4 6 0 Classes Enhanced eBook Features
- 7. Enhancing Your Reading Experience
 - o Adjustable Fonts and Text Sizes of The Gwr Mixed Traffic 4 6 0 Classes
 - Highlighting and Note-Taking The Gwr Mixed Traffic 4 6 0 Classes
 - Interactive Elements The Gwr Mixed Traffic 4 6 0 Classes
- 8. Staying Engaged with The Gwr Mixed Traffic 4 6 0 Classes
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers The Gwr Mixed Traffic 4 6 0 Classes
- 9. Balancing eBooks and Physical Books The Gwr Mixed Traffic 4 6 0 Classes
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection The Gwr Mixed Traffic 4 6 0 Classes
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine The Gwr Mixed Traffic 4 6 0 Classes
 - Setting Reading Goals The Gwr Mixed Traffic 4 6 0 Classes
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of The Gwr Mixed Traffic 4 6 0 Classes
 - Fact-Checking eBook Content of The Gwr Mixed Traffic 4 6 0 Classes
 - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
 - Utilizing eBooks for Skill Development
 - Exploring Educational eBooks
- 14. Embracing eBook Trends
 - Integration of Multimedia Elements

• Interactive and Gamified eBooks

The Gwr Mixed Traffic 4 6 0 Classes Introduction

In todays digital age, the availability of The Gwr Mixed Traffic 4 6 0 Classes books and manuals for download has revolutionized the way we access information. Gone are the days of physically flipping through pages and carrying heavy textbooks or manuals. With just a few clicks, we can now access a wealth of knowledge from the comfort of our own homes or on the go. This article will explore the advantages of The Gwr Mixed Traffic 4 6 0 Classes books and manuals for download, along with some popular platforms that offer these resources. One of the significant advantages of The Gwr Mixed Traffic 4 6 0 Classes books and manuals for download is the cost-saving aspect. Traditional books and manuals can be costly, especially if you need to purchase several of them for educational or professional purposes. By accessing The Gwr Mixed Traffic 4 6 0 Classes versions, you eliminate the need to spend money on physical copies. This not only saves you money but also reduces the environmental impact associated with book production and transportation. Furthermore, The Gwr Mixed Traffic 4 6 0 Classes books and manuals for download are incredibly convenient. With just a computer or smartphone and an internet connection, you can access a vast library of resources on any subject imaginable. Whether youre a student looking for textbooks, a professional seeking industry-specific manuals, or someone interested in self-improvement, these digital resources provide an efficient and accessible means of acquiring knowledge. Moreover, PDF books and manuals offer a range of benefits compared to other digital formats. PDF files are designed to retain their formatting regardless of the device used to open them. This ensures that the content appears exactly as intended by the author, with no loss of formatting or missing graphics. Additionally, PDF files can be easily annotated, bookmarked, and searched for specific terms, making them highly practical for studying or referencing. When it comes to accessing The Gwr Mixed Traffic 4 6 0 Classes books and manuals, several platforms offer an extensive collection of resources. One such platform is Project Gutenberg, a nonprofit organization that provides over 60,000 free eBooks. These books are primarily in the public domain, meaning they can be freely distributed and downloaded. Project Gutenberg offers a wide range of classic literature, making it an excellent resource for literature enthusiasts. Another popular platform for The Gwr Mixed Traffic 4 6 0 Classes books and manuals is Open Library. Open Library is an initiative of the Internet Archive, a non-profit organization dedicated to digitizing cultural artifacts and making them accessible to the public. Open Library hosts millions of books, including both public domain works and contemporary titles. It also allows users to borrow digital copies of certain books for a limited period, similar to a library lending system. Additionally, many universities and educational institutions have their own digital libraries that provide free access to PDF books and manuals. These libraries often offer academic texts, research papers, and technical manuals, making them invaluable resources for students and researchers. Some notable examples include MIT OpenCourseWare,

which offers free access to course materials from the Massachusetts Institute of Technology, and the Digital Public Library of America, which provides a vast collection of digitized books and historical documents. In conclusion, The Gwr Mixed Traffic 4 6 0 Classes books and manuals for download have transformed the way we access information. They provide a cost-effective and convenient means of acquiring knowledge, offering the ability to access a vast library of resources at our fingertips. With platforms like Project Gutenberg, Open Library, and various digital libraries offered by educational institutions, we have access to an ever-expanding collection of books and manuals. Whether for educational, professional, or personal purposes, these digital resources serve as valuable tools for continuous learning and self-improvement. So why not take advantage of the vast world of The Gwr Mixed Traffic 4 6 0 Classes books and manuals for download and embark on your journey of knowledge?

FAQs About The Gwr Mixed Traffic 4 6 0 Classes Books

- 1. Where can I buy The Gwr Mixed Traffic 4 6 0 Classes books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
- 2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
- 3. How do I choose a The Gwr Mixed Traffic 4 6 0 Classes book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
- 4. How do I take care of The Gwr Mixed Traffic 4 6 0 Classes books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
- 5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing. Book Swaps: Community book exchanges or online platforms where people exchange books.
- 6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets: You can create your own spreadsheet to track books read, ratings, and other details.

- 7. What are The Gwr Mixed Traffic 4 6 0 Classes audiobooks, and where can I find them? Audiobooks: Audio recordings of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.
- 8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media or recommend them to friends.
- 9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.
- 10. Can I read The Gwr Mixed Traffic 4 6 0 Classes books for free? Public Domain Books: Many classic books are available for free as theyre in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

Find The Gwr Mixed Traffic 4 6 0 Classes:

the festive decorations the miniature series

the family circle of 429 great giftstomake all year around for just 10 cents symbol to 10

the firm complete aerobic weight training

the fateful choice japans advance into southeast asia 1939-1941

the first forest rangers protectors of the wilderness

the fishing here is great

the final witness the last gentile trilogy 3

the fine 35mm portrait

the fire of hanthol

the female pelvis anatomy exercises

the first part of hieronimo and the spanish tragedy.

the family jewels and other stories five star first edition mystery series

the fighting kentuckian vhs tape 1999 waggner george wayne john ralston

the first decade of the twentieth century the burgess shale of modern technology

the first breath of freedom

The Gwr Mixed Traffic 4 6 0 Classes:

Exemplars Exemplar 1: Topic 8: An analysis and evaluation of the business and financial performance of an organisation over a three year period. Exemplars Many of the key themes from the ACCA syllabus - particularly financial reporting. performance measurement and business analysis - have been discussed in this ... OXFORD BROOKES BUSINESS SCHOOL cloudfront.net Feb 19, 2018 — Business School, Oxford Brookes University. MESSAGE FROM THE VICE-CHANCELLOR. Oxford Brookes University and by extension Oxford. Brookes ... THE FACULTY OF BUSINESS - cloudfront.net with recent examples on green reporting, business ethics, stakeholder ... OXFORD BROOKES UNIVERSITY FACULTY OF BUSINESS. 10. 2.1.3. STUDENT ENGAGEMENT IN ... OXFORD BROOKES BUSINESS SCHOOL OUR PART-TIME COURSES ALSO INCLUDE: The Oxford Brookes Global MBA - Open to international students. MA/Postgraduate Diploma in Human Resource Management. MA ... OXFORD BROOKES BUSINESS SCHOOL This gives you first-class learning spaces close to university facilities, student halls and the city centre. QUALITY OF OUR COURSES. The high standard of our ... Oxford Brookes University (Oxford Brookes) Oxford Brookes students can get immediate homework help and access over 24900+ documents, study resources, practice tests, essays, notes and more. MARKETING 4001 - Oxford Brookes Access study documents, get answers to your study questions, and connect with real tutors for MARKETING 4001 at Oxford Brookes. 220156560.pdf by R Sharpe · Cited by 219 — This paper describes the implementation of an e-learning strategy at a single higher education institution in terms of the levers used to promote effective ... The Developing Human: Clinically Oriented... by ... The Developing Human: Clinically Oriented Embryology with Student Consult Online Access, 9th Edition. 9th Edition. ISBN-13: 978-1437720020, ISBN-10 ... Clinically Oriented Embryology, 9e - 1st Edition Written by some of the world's most famous anatomists, it presents week-by-week and stage-by-stage views of how fetal organs and systems develop, why and when ... The Developing Human: Clinically Oriented Embryology Edition: 9th Edition. ... Synopsis: The Developing Human: Clinically Oriented Embryology, by Drs. Keith L. Moore, T.V.N. Persaud, and Mark G. Torchia, delivers ... The Developing Human: Clinically Oriented Embryology ... The Developing Human · Clinically Oriented Embryology with Student Consult Online Access, 9th Edition; Published by Saunders, 2011; Shipping: US\$ 3.99. Within ... Developing Human: Clinically Oriented Embryology 9th ... Developing Human: Clinically Oriented Embryology 9th Edition is written by Keith L. Moore, T.V.N. Persaud, Mark G. Torchia and published by W.B. Saunders ... The Developing Human: Clinically Oriented Embryology Edition, 9, illustrated, reprint; Publisher, Saunders/Elsevier, 2013; ISBN, 1437720021, 9781437720020; Length, 540 pages ; Subjects. Medical. > Embryology. The Developing Human - 9780323611541 - Elsevier Health Extensively revised to incorporate recent research and current clinical practice, The Developing Human: Clinically Oriented Embryology, 11th Edition, covers ... The developing human: clinically oriented embryology Edition: 9th ed View all formats and editions. Publisher: Saunders/Elsevier, Philadelphia, PA, 2013. Physical Description: 1 online resource (xix, 540 pages) ... The

Developing Human | Get Textbooks The Developing Human(9th Edition) Clinically Oriented Embryology with Student Consult Online Access, by Keith L. Moore, Mark G. Torchia, Moore Persaud, Et ... The Developing Human Clinically Oriented Embryology by ... The Developing Human Clinically Oriented Embryology by Keith L. Moore, T. V. N. Persaud, Mark G. Torchia [Saunders, 2011] (Paperback) 9th Edition. Keith L. Moore. Sample Questions Pharmacy Technician Qualifying Examination - Part I (MCQ) Sample Questions. The sample questions that follow are NOT intended or designed to be a sample ... OSPE Sample Stations Each task or station is designed to test candidates' abilities to handle various scenarios as they would in a pharmacy practice setting. There are different ... PEBC Technician Qualifying Exam Free Sample Questions PharmPower offers free sample PEBC-style questions and answers for the Technician Qualifying Exam. Get full access to our comprehensive multiple choice ... Sample Station # 7 - ospe - PEBC PHARMACY ... Assess the situation and proceed as you would in practice. Note: The pharmacist has already counselled the client on the medication ... Technician OSPE [PEBC] practice station case ... - YouTube PTCB Practice Test [Free] | 5+ Exams & Answers Jun 24, 2023 — Pass your Pharmacy Tech exam with our free PTCB practice test. Actual questions and answers - updated for 2023! No registration required. Technician OSPE Case #1: Flu - YouTube Sample Questions Sample Questions. Click here to review a sample of Jurisprudence, Ethics and Professionalism examination questions from various sections of the exam. MSQ /OSPE Flashcards Study with Quizlet and memorize flashcards containing terms like Pharmacy Technician, accuracy, pharmanet, verbal, law and more. OSPE Pharmacy Technician | PEBC Technician Exam OSPE Pharmacy Technician is a set of stations designed to test the practical skills of candidates. The core competencies of pharmacy technician practice remain ...