RURAL MUSEUMS NETWORK

DIGGING DEEP

Report on the results of the Plough Survey, 2011

Part of the Museums Association's Effective Collections Programme

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DIGGING DEEP

A survey of Ploughs in Museums

Report for the Rural Museums Network and the Museums Association.

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A survey of Ploughs in Museums

1. Summary and Recommendations

The rural museums community once again responded with enthusiasm to the opportunity to share information about an aspect of their collections with colleagues. Although completing the Survey put an additional pressure on already busy staff and volunteers, several commented that it was a useful exercise and it encouraged them to look closely at their ploughs for the first time. The 80% response rate was very creditable, given the pressures that people are under. Without their willing participation, the project would have failed.

Data has been collected on 685 horse ploughs and 80 tractor ploughs primarily in the museums of RMN members. This includes information on the conservation status, storage and documentation of each object.

Following two seminars which included museum people, enthusiasts and private collectors, a detailed analysis of the makers represented has been undertaken to assess their relative importance.

All the information has been brought together into this Report, which will be circulated to all members.

Conclusions

1. Horse plough collections of UK importance exist at the National Museum of Rural Life, Scotland; the National History Museum, Wales; and the Museum of English Rural Life (MERL), University of Reading.
2. However, the MERL collections are not fully representative of the subject through time or across the whole of England. The Museum of East Anglian Life (Ransomes) and the Museum of Lincolnshire Life (Cooke, Edlington, Fenton, Hornsby) have collections that are both local to their area and represent the industrialised production of ploughs from the mid-19th century. Ransome ploughs in particular are found in every part of the country. These two regional collections therefore should be considered as a critical part of the 'distributed national collection'.
3. Howard of Bedford ploughs are also widespread but no one museum represents that company.
4. In Scotland, the strong collection at the Highland Folk Museum complements that in the National Museum of Rural Life.

5. Generally, the Survey has shown that there is less duplication than was expected at the start of the project. Many local museums have ploughs local to their area, often the only surviving example of a particular maker in this survey. There are good stories to be told here, based on the people involved and the work they did.

Recommendations

1. The wooden ploughs currently stored outside should receive immediate attention and be brought under cover. If not in a building, then at least some protection from the weather should be given **as a matter of urgency**.
2. All ploughs stored or displayed in the open should be examined to establish their condition and remedial action taken where necessary.
3. Standard factory made ploughs with no maker's name or good provenance should be considered first for disposal or rehoming, particularly if their condition is not good. These can be positively identified from the information in the Survey. Any museum considering the future of their collection should consult the database. There could be up to 100 such ploughs, but decisions need to be made on a case by case basis using all available information.
4. Consideration should be given to transferring the steam cultivator at the Museum of Lincolnshire Life, which is unseen and unused and is actively deteriorating, to the Museum of East Anglian Life where it could be refurbished and used with their ploughing engines.
5. Serious consideration should be given to the acquisition of a careful selection of ploughs from the second half of the 20th century.
6. Lincolnshire County Council should be encouraged and helped to improve the display and interpretation of its important plough collection at the Museum of Lincolnshire Life. This is currently a wasted asset and much of it is stored outside and is deteriorating .
7. Four Ransome ploughs are identified as 'rare' by Neil Syrett. The owners of these ploughs – Priest's House, Wimborne; Brook, Kent; Denny Abbey, Cambridgeshire; and the Museum of Lincolnshire Life – should be alerted to their importance and encouraged to highlight this in their displays.

2. Background to the Project

The Plough Survey, the first phase of which was undertaken between January and July 2011, is the fourth in a series of in-depth studies into surviving agricultural artefacts in the UK's rural museums, undertaken with the view to identifying a 'Distributed National Collection' within rural museums. Following recommendations in the Report *Sorting the Wheat from the Chaff* (Viner & Wilson, 2004), combine harvesters, tractors, dairying collections and wagons & carts have been surveyed to compile a database of museums' holdings in these subject areas and to assess the relative importance of the objects held. This has enabled individual museums to review their collections from a position of better knowledge not only of their own holdings, but of the holdings of similar museums around the country. A real strength has been the UK-wide nature of these surveys, and this has proved particularly important for the Plough Survey. This assessment process is especially relevant at the present time when review and rationalisation of collections is taking place in many museums.

The Plough Survey is being funded as part of the Museums Association's Effective Collections Programme.

3. The Process

A detailed questionnaire, a copy of which is included as Appendix 5, was devised and sent to 55 institutions in January 2011 with responses sought by 31 March. All are members of the RMN, apart from a small number of non-member museums known to have significant plough collections.

The timescale proved a challenge to most museums due to shortage of staff and lack of curatorial time. In fact whilst most were returned by the end of April, a response was received as late as July and a further additional local rural museum collection was added in September. RMN Committee felt it was more important to get as comprehensive a response as possible, rather than having a rigid cut-off date.

Six museums responded to say that they held no ploughs. Thirty-eight museums sent in a positive return and these are listed as Appendix Six. Some listed one plough only, others had considerable numbers. All the information submitted was compiled on to an Excel Spreadsheet and analysed under a number of headings.

This information was then considered at two Seminars, one held in Scotland (courtesy of National Museums of Scotland) in June and one held in Spalding, Lincolnshire (courtesy of Spalding Gentlemen's

Society). These Seminars included extremely knowledgeable private individuals to whom we are most grateful for their willing participation.

Following the Seminars, further analysis took place. Particularly problematic groups of ploughs were the subject of more detailed study and the results are shown in Appendices 2, 3 and 4. Significant thanks are due Bob Powell, Neil Syrett and Stuart Gibbard for these contributions. All the information has been brought together into the present Report.

4. The Results

There was an 80% response rate to the survey which is considered commendable, given the difficult circumstances some museums are currently in.

In summary, the survey asked for:

- Information on the type of plough
- Make, model and estimated date
- The materials it is made of
- Its condition
- How it is stored
- The state of documentation
- Its length and the length of the mould board

Not all respondents were able to answer every question but overall the returns provide valid information of the distribution of plough types in the UK's rural museums, from which it is possible to make a number of deductions and suggestions.

A total of 685 horse ploughs and 80 tractor ploughs were identified in the 38 museums who provided data. This number does not however include the collection of the National Museum of Science and Industry who were unable to complete the survey. They did send a copy of their Mimsy database but it has not been possible to incorporate this into the survey. They appear to have 13 full size horse ploughs & 8 tractor ploughs, plus steam tackle.
They have the earliest surviving plough, the Rotherham plough of 1720.

4.1 Horse Ploughs

The largest collections of horse ploughs are:

National Museums Scotland	103
National Museums Wales	70
Museum of Lincolnshire Life	44
Museum of English Rural Life	35
Rural Life Centre, Farnham	32
Museum of East Anglian Life	30

The two national collections are just that, and represent the variety and development of that most important of agricultural implements across their respective countries. The Museum of English Rural Life has a carefully collected selection of important ploughs but mainly from the South of England. The collections in Lincoln and Stowmarket represent the important agricultural engineering firms in those two regions as well as the importance of ploughing in the prime arable areas of the country. They represent the spread of the 'mass produced' plough from the middle of the 19th century, not just in the UK but across many parts of the world. The Tilford collection is more varied, representing local makers, makers from the south of England and the West Country.

Types of plough

The majority of the items recorded are standard wheeled ploughs but numbers of other types were recorded:

Pre-1850	45
Swing	117
Ridging	107
Turnwrest/one-way	33
Double furrow	26
Gallows	13
Subsoil/mole	7

The turnwrest and gallows ploughs are particularly interesting as these represent distinct regional types. For example there are no gallows ploughs outside East Anglia and Kent, apart from examples in the MERL collection.

Makers

Of the 685 ploughs in the survey, no make was given for 167. Some of these are early wooden ploughs and are of considerable historic significance. Others, though, from the information given, appear to be standard metal ploughs. If they have no distinguishing features and poor provenance, it is suggested these might be considered first in any rationalisation proposals.

135 different makers were represented in the 499 ploughs for which a maker was given. These have been considered carefully in the two seminars to assess their relative importance, and an analysis is given in Appendix One. The makers have been categorised under the following headings:

1	small local maker	99
2	regional maker	20
3	maker of national importance	8
4	non-UK makers	8
5	ploughs with no maker identified	169 individual items

Most of the local makers are represented by one plough only, appropriately in the museum nearest to its place of origin. More research remains to be done on most of the firms represented, but this is outside the scope of the Survey so in some cases only minimal information can be given. If museums already have additional data it would be extremely useful for this to be added to Appendix One to give as much information as possible, for future reference.

Numerically, the top six makes represented are:

Ransomes, Ipswich (in its various guises)	102
J Howard & Sons, Bedford	33
Oliver, USA	28
J Cooke & Sons, Lincoln	28
Hornsby/Ruston & Hornsby, Grantham	18
Geo. Sellar, Huntly	17
Total	**226 [33%)**

By far the most common make represented in the survey is the firm of Ransomes of Ipswich, through its various name changes, with 102 examples in the survey. But the firm had a long and distinguished history in plough manufacture, and produced different types to suit local need, so there is less duplication in the sample than might be expected.

The importance of Ransomes as a plough manufacturer cannot be overestimated and therefore it is not surprising to see many of their products surviving across the country. A detailed account of Ransomes and their ploughs is given at Appendix Two.

<u>The materials</u>

The survey asked a question about the materials the plough was made of. The responses were:

- 43% (275) are all iron and factory made
- 27% (170) are wholly or partially made of wood
- 20% (129) are all iron but made by blacksmith or small local foundry
- 41 responses did not answer this question

<u>Storage</u>

Although on the surface, ploughs might appear to be robust and not need protective storage, in fact they are subject to deterioration like any other objects. Wooden ploughs are much more susceptible to damage from poor storage conditions than metal ones.

It was therefore important to discover how the ploughs were kept, either on display or in store.

The answers were:

- Indoors, controlled environment 100
- Indoors, uncontrolled environment 249
- Undercover in open-sided shed 82
- Outside sheeted down/some protection 2
- In the open with no protection 148
- Question not answered 51

The Survey showed that 23% of the sample is 'stored' outside with no protection from the elements. 23 wholly or partly wooden ploughs were stored in open sided sheds, and 5 wooden ploughs are stored in the open with no protection at all and are therefore at immediate risk.

4.2 Steam ploughing tackle

In the middle years of the 19th century many companies and individuals experimented with ploughing using steam as the motive power. But it was not until Fowler of Leeds developed a workable system using two steam engines, one placed either side of the field, pulling a plough or a cultivator between them by means of a cable that steam ploughing became a viable proposition. Fowler became the main supplier of this system of cultivation. The complete tackle – two steam engines, plough, cultivator, living van and water cart – was expensive and was only acquired by the largest farms or contractors. It was also only suitable for use on relatively flat land with large fields. The Museum of Lincolnshire Life has a complete set of Fowler tackle, although neither of the two engines 'John' and 'Michael' is currently in working order. The Science Museum has a pair of Fowler ploughing engines, as do the industrial museums in Nottingham and Leeds, but otherwise surviving Fowler ploughing engines are in private hands and many of those are in working order.

The Museum of East Anglian Life has a unique pair of ploughing engines made by Burrells in Thetford, in 1879. These are extremely important survivors and are used but the museum has no implements to go with them.

The Long Shop Museum in Leiston, Suffolk has another unique item – a Garrett 'Suffolk Punch' steam engine of 1919, designed for direct ploughing, together with a Howard of Bedford 3 furrow plough that can be used with it.

The Museum of East Anglian Life has another set of cable ploughing engines but these are powered by diesel engines made by Walsh & Clark.

4.3 Tractor ploughs

There are 80 tractor ploughs in 17 museums. Ransomes again top the list of makers with 14 examples; Ferguson, who produced many ploughs for use with their iconic tractors, are represented by 11 examples. No maker was recorded for 13 of the ploughs.

31 of the tractor ploughs are dated between 1930 & 1950; 29 have no date given. Only 11 are dated after 1950 and of these 9 are at Kittochside.

MEAL has the newest plough, appropriately a Ransome from 1986 (25 years ago!) This survey once again highlights the almost complete lack of collecting during the second half of the 20th century, and its complete absence in the 21st century.

A full analysis of the tractor ploughs is given in Appendix Four, courtesy of Stuart Gibbard, an independent member of RMN from the preservation world. The magazine he edits, *Vintage Tractor and Countryside Heritage,* is an authoritative and interesting source of information for all things tractor-related. The Tractor Database is at Appendix 8.

APPENDIX ONE

Some notes on makers represented in the collections.

Analysis of makers

The ploughs represented in the Survey fall into 5 broad categories:

1 small local maker
2 regional maker
3 maker of national importance
4 foreign makers
5 ploughs with no maker identified

The category into which any particular maker fits is not rigid – I have made a judgement on the basis of available evidence, but there is much scope here for further research. In the short term information could be added from RMN members' own local records.

1. Small local makers

These makers are almost exclusively represented by one plough in the collection of the museum nearest to their place of production. This is as it should be. All of these are important. They would be enhanced by some background local history information from Directories and other sources. If museums do not already have this data, we should encourage this to be gathered, perhaps in partnership with the relevant local history society. This list has been compiled using data supplied through the Plough Survey forms. Any additions or corrections would be welcomed. The museum owning the plough is given in brackets.

1.1 A. Dawson, Kendal (Lakeland Life)

1.2 Andy Joghin (Manx)

1.3 Armfield & Co., Ringwood (Priest's House, Wimborne)

1.4 Bendall, Woodbridge (MEAL) MEAL has two ploughs by this maker, both thought to be pre-1850. The model details are SA & AY. 'AY' is a Ransomes model name. This plough may have been assembled using Ransome parts.

1.5 Boulting ? (Northleach)

1.6 C. S. Blythe, Rayne, Essex (Ramsey)

1.7 Caesar Brew (Manx)

1.8 Cameron, Bungay (Gressenhall) local firm taken over by Rumsby

1.9 Cannings, Finchdean (WDOAM has 3 examples)

1.10 Charlton, Hexham (Beamish)

1.11 Cole & Son, Chatteris (Denny Abbey & Ramsey)

1.12 G Cole, Ely (Gressenhall) Local company.

1.13 W J Coles, Bracknell (Tilford)

1.14 Cook (Tilford)

1.15 Corbett, Wellington, Shropshire (Acton Scott)

1.16 Jabez James Cornish, Walsingham (Gressenhall)

1.17 Cornish & Lloyds Ltd, Bury St Edmunds (MEAL has 2) These are rare and unusual

1.18 Cruickshank & Co. Ltd. (Shugborough)

1.19 Daniel Brew (Manx)

1.20 G Davis, Hampton (Avoncroft)

1.21 Deon (Tiverton)

1.22 Dickson & Burn, Guildford (Tilford)

1.23 Farmers Foundry, Great Ryburgh, Norfolk. (Gressenhall) St. Andrew's Works, established by Percival Everitt and William John Adams and traded as Everitt, Adams and Co. 1878 Everitt has a patent for a ploughing engine but the manufacture was taken over by Burrells. Were trading as Farmers Foundry by 1888.

1.24 Harris, Sleaford (MLL) William Robert Harris is listed as an implement maker in Sleaford, Lincs. from 1856 to 1889. Harris, Smith & Co. are then listed from 1893-1933.

1.25 Hayward & Sons, Tewkesbury (Avoncroft)

1.26 Hower (Manx)

1.27 Huddlestone (Denny Abbey)

1.28 E. G. Knight, Great Casterton [Rutland] Small engineering company, now making agricultural sprayers. The ploughs were made for local customers only. Ron Knight, E.G. Knight's grandson, is an expert on combine harvesters and he and his son Brian are well-known in the preservation world.

1.29 J. Hook, Weston Longueville, Norfolk (Gressenhall)

1.30 J. J. Kays (Manx)

1.31 Kearle, Bridgewater, Somerset (SRLM)

1.32 Lewin, Mcrown (Manx)

1.33 J S Low & Son, Blairgowrie. (Tilford) Local maker in Scotland. No information as to how this plough got to the south of England.

1.34 Lyng Bros., Saxthorpe, Norfolk. (Gressenhall)

1.35 Mark-Hillson & Son Ltd. (Shugborough)

1.36 Mason & Weyman, Guildford. (WDOAM)

1.37 Morley, Beeford (Murton)

1.38 Morton, Louth, Lincs. (MLL) Joseph Morton was operating in Louth from 1841, the firm became Morton & Son in 1889 and traded as Morton Son & Lock from 1913-1937.

1.39 C Rix, Dereham (Gressenhall)

1.40 Robin Bros, Loftus (Beck Isle)

1.41 Romney Marsh (Brook)

1.42 Savery, Thornbury (Thornbury)

1.43 J Shores & Co, Owston Ferry, North Lincs. (Normanby) Were operating between 1896-1913.

1.44 Smiths, Whitchurch (Acton Scott)

1.45 Stalkers, Penrith (Lakeland Life)

1.46 T Croft, Kendal (Lakeland Life)

1.47 Thomas Corbett, Shrewsbury (Acton Scott)

1.48 Troth & Hillson (Acton Scott)

1.49 M & G Turk, Newbury (MERL & Tilford)

1.50 W H B (Leicestershire)

1.51 G Wade (Chiltern)

1.52 Warrens, Malden (WDOAM)

1.53 William Troth, Norton Lindsey, near Warwick (MERL) Wood and cast iron, made in 1796(?)

1.54 Wood & Sons, Driffield (Murton) J. Wood & Sons are listed on the internet as agricultural engineers in Driffield, but there is no historical information, so not able to judge the size nor whether this is the same firm who made the plough.

1.55 Woods, Bilsdale (Beck Isle)

1. 56 J. C. & T. Yates, Doncaster (Normanby & Shugborough)

1.57 Youngs (MEAL & MERL)

Scottish makers

1.58 Barrowman, Saline, Queensferry. (NMS)A classy plough but small producer.

1.59 H. Boyle, Auchinleck. (NMS)

1.60 Bridges, Madiston (NMS)

1.61 A.Cameron, Tulliemet. [Highland Folk Museum] These were the 'Rolls Royce' of Scottish ploughs for match ploughing.

1.62 P. Campbell, Ballinluig (Atholl) Small local foundry.

1.63 Crann nan Gad, Western Isles (NMS)

1.64 J. Dunbar, Dipple Local blacksmith. (HFM)

1.65 Grant, Craigelachie (HFM, & Aberdeen)

1.66 Grant, Rothes (HFM)

1.67 D. Hally, Auchterader Blacksmith made but good for competition ploughing

1.68 Laing, Advie (HFM)

1.69 Neil McDonald, South Uist

1.70 J. McGlashan, Pitlochry (Atholl)

1.71 John Paterson, Harkinston (Aberdeen)

1.72 Robert Petrie, Marypark. (HFM) Small local foundry.

1.73 Jud Skinner, Dallininnor (NMS)

1.74 F. Smail, Lawton (NMS)

1.75 Chas Stewart & Lachlan MacRury, North Uist (NMS)

1.76 J Thompson, Cults, Aberdeen (Aberdeen)

Welsh makers

All these are in the collections of the National History Museum, St. Fagans. For further information see *A Directory of Agricultural Machinery & Implement makers in Wales,* by Elfyn Scourfield, copies available from Gareth Beech at St. Fagans.

1.77 D. L. Davies, Carmarthen

1.78 Edward Davies, Brookhouse, Denbigh. Iron founder.

1.79 Wynne Edwards,TheFoundry, Factory Street, Denbigh.
Ironfounder, engineer and machine maker.

1.80 D. Evans, Coedgleision, Llangybi. Blacksmith & ploughwright, c. 1900.

1.81 David Evans, Dyffryn, Rhydlewis. Farmer & plough designer. Designed Dyffryn plough about 1880.

1.82 W.L. Evans, Llanfihangel Creuddyn. Blacksmith & ploughwright.

1.83 J. Griffiths, Cwm Llanllnan

1.84 D Jones, Pant-y-Betws, Beulah, Newcastle Emlyn. Blacksmith & ploughwright. Later established Lion Works in Carmarthen, (D.O.Jones & Sons)

1.85 R. Jones, Haverfordwest

1.86 T. Jones & Son, Priory Foundry, Carmarthen. Made a range of agricultural implements and other items such as cheese presses. Acted as agents for English manufacturers.

1.87 Dan Lewis, Penllwynraca, Llannon, Llanelli. Developed a single furrow plough with improvement to design of mouldboards.

1.88 Ian Lucas, Cwmtenddwr, Powys

1.89 T. Morris Logan, Carmarthen

1.90 Meredith & Co., Kington. Ironmonger & ironfounder

1.91 Owen Lazarus Mellard & Co. , Denbigh

1.92 J.E. Nott & Co. Ltd, Brecon. Agricultural engineers. Exhibited machinery at Cardiff Show, 1901, also agents for English makers.

1.93 J.E.Pontselly, Carmarthen.

1.94 D. Roberts, Ty'n-y-cefn, Corwen. Wheelwright, c. 1850-60

1.95 W. Roberts, Ruddlyn

1.96 E Thomas, Denbigh

1.97 J & R Thomas, Llanrwst. Ironfounders.

1.98 Turner Bros., Cambrian Ironworks, Newtown. Agricultural implement makers.

1.99 Thomas H Williams, Brecon. Iron and brass founder.

2. Regional makers

These makers were larger companies who made a range of agricultural products and some of whom had a significant workforce – perhaps up to 100 people at their peak. They had good distribution in their local area and regionally, but did not penetrate markets at a national level. Some may only be represented by only one plough in this survey but other ploughs or different types of products are known in other locations. The decision to put some of these makers into the 'regional' rather than the 'national' category is not fixed and the author is open to arguments either way!

2.1 William Balls, Rothwell, Northants William Ball came from Ireland and founded his company, William Ball & Son Limited, in 1809. The firm made agricultural implements and soon won a reputation of some note. One of William Ball's ploughs, the 'Criterion' made in the early 20th Century is in Kettering's Manor House Museum; a further example is at the Chiltern Open Air Museum.
The firm continued (latterly as part of the Burgess Company) until the 1970s.

2.2 Begg; Begg & Bellam & Son Medium sized Scottish firm, semi – industrial. [NMS & HFM]

2.3 Blythe & Pawsey Ltd, Essex A small company still in existence as retailer. Two examples in Survey – Denny Abbey & WDOAM

2.4 H. Bushell, York Was an agricultural machinery manufacturer but no further information is available at present.

2.5 C Brown & Son, Leighton Buzzard A well known local maker who started as blacksmiths but became agents for larger companies. The firm still in existence. 1 example.

2.6 Cook, Yaxley, Peterborough Made a variety of machinery. Known for horse gear and elevators. Celery ploughs at Skegness & Ramsey are rare examples of specific plough type. 2 examples.

2.7 Davey Sleep & Co., Plymouth The company Davey Sleep was founded in the 1860s and became Davey Sleep and Co. Ltd. in 1895. They became renowned for their ploughs, and in particular for their balance ploughs which were very effective on hilly terrain. 8 ploughs in survey.

2.8 J B Edlington, Gainsborough The firm started in 1865 by two brothers from Bottesford near Scunthorpe. They concentrated on the lighter agricultural machinery such as reapers and mowers but

also built a range of ploughs. For more information see article by Susan Edlington, Tony Wall & Terry Maidens in *Ploughs, Chaff Cutters & Steam Engines,* SLHA, 2007. The firm is still in business and still has an Edlington in charge. 13 ploughs represented in the survey.

2.9 F Randell Ltd, North Walsham, Norfolk John Randell who was born in 1777 was both a carpenter and Ironmonger. His son James established the business proper in the 1820s and on his demise, the company was taken over by his wife Mary and the name changed to M Randell and Sons. The enterprise at this time had branches in North Walsham, Northrepps and Cromer and made such items sugar beet hoes, water carts and other horse drawn equipment. The Foundry and main manufacturing site was established in Bacton road North Walsham at the St Nicholas works between 1865-1870. Two Sons, Fredrick and Horace Randell continued the business under the name F&H Randell and company regularly showed their goods at numerous agricultural shows all over England. In the 1883 Kellys directory, the business is quoted as Fredrick & Horace Randell, wholesale, retail furnishing and general ironmongers. Bar, brass founders and agricultural implement makers. The company became F Randell and company in 1897. 1 example.

2.10 Fenton; Fenton & Townsend, Sleaford, Lincs. J. B. Fenton was operating as an implement maker at Great Hale near Sleaford from 1872. He moved the works to Sleaford in 1893. The firm became Fenton & Townsend Ltd in 1937. The firm is still in existence as a machinery dealer. Fenton is best known for his 'Little Wonder' plough.William Bentley Fenton was also an implement maker at Eagle near Lincoln, 1889-1922. 6 examples.

2.11 George Gray & Co., Uddingstone. Quite large producer. First to make iron version of Small's plough, the firm started late 18th century. (HFM)

2.12 Huxtable, Barnstaple, Devon Made mainly one-way ploughs suitable for conditions in the West Country. 4 examples.

2.13 Kell & Co. Gloucester Made a wide range of agricultural machinery. Firm still in business. 4 examples.

2.14 Kelso Foundry, Kelso [NMS]

2.15 Lloyds & Co, Letchworth Lloyd, Lawrence & Company as it was first known was founded by John Post Lawrence in 1878 as an

agency for the import and sale of American “Pennsylvania” mowing machines in the City of London. In 1913 John Lawrence decided that Letchworth would be an ideal new location for the company and so began the company’s long and deep association with the First Garden City.

Production of the first Letchworth-made “Pennsylvania” professional mowers started in early 1934 and this was followed by the development and manufacture of a range of other compatible equipment. The firm is still in business makling mowing machines particularly for lawn care. Their ‘Larkworthy’ and other ploughs were largely designed for the market gardener rather than the farmer. They are quite small and light weight. 9 examples.

2.16 Newlands, Linlithgow A medium sized firm, still in business.

2.17 E. H. Roberts, Deanshanger The business was founded in 1821 in Deanshanger by Richard Roberts. In 1843 the business was taken over by Richard's son, John, and then in 1857 by his grandson Edwin. Implements were often branded "Roberts - Stony Stratford", the name of the nearby local town. Over the years the company produced several hundred types of plough and the 1926 catalogue claimed that it had been making ploughs for over one hundred years and that they were unrivalled for efficiency, wearing service, durability and general excellence in design, construction and finish". Early Roberts ploughs would have been the wooden beam type with iron fittings, such as the "Dane Plow" which was still being produced in the first years of the twentieth century. The majority of the Roberts ploughs were produced under the "Mephisto" trade name. One and two horse, balance, gang and tractor drawn variations were made in the Brittania Works. A good range of Roberts’ products are on show the Milton Keynes Museum (not included in the survey) who can provide further information on the company. 3 ploughs in survey.

2.18 Taskers, Andover For 170 years, Taskers were a leading manufacturer of a wide range of agricultural implements and machinery, steam and stationary engines and road vehicles. In the early years of the 19th century Robert Tasker and his brother, William, began what was to become the Waterloo Ironworks near to Andover in Hampshire. In 1896 Henry Tasker handed over ownership of the firm to shareholders. Tasker & Sons became Tasker & Sons Ltd. The company went through various changes in management but survived until the early 1980s when the company finally went into liquidation. Hampshire Museums Service has a

good range of Tasker products, particularly steam engines for which they are perhaps best known. 1 example.

2.19 Twose, Tiverton Founded in 1830 Twose of Tiverton was originally a small blacksmith based in Halberton just 3 miles from where they are now, producing a small number of horse drawn agricultural products.
In the 1940s Twose moved to Tiverton, increasing production to help meet demand for cultivation equipment in the booming farming industry. Once established, Twose expanded their product range and started to produce hedgecutters, rollers, mowers, loader implements, ploughs and many other cultivation products. After 179 years in business Twose Of Tiverton is now a world leading agricultural company selling a wide range of agricultural equipment from; hedgecutters and rakes to rollers and flex wing mowers. They took over the Davey Sleep company. 3 examples.

2.20 Weyman & Johnson Ltd, Guildford (Tilford) The company went though several name changes, apparently being Weyman & Co in 1890 and Weyman & Hitchcock in 1892. The two ploughs at Tilford therefore must date before 1890. The company made stationary engines, brick & tile machinery and a variety of other products as well as farm implements. 2 examples.

3. Makers of National significance

These companies had national distribution of their products. They were often best know for their steam or oil engines but most made a wide range of implements to meet all the farmer's needs as well as street furniture and domestic items. They differ in scale. John Cooke & Sons of Lincoln concentrated on plough production, of which a significant number survive and which are still favoured by some for competition ploughing; and on wagons and carts. For Richard Hornsby of Grantham on the other hand, ploughs were only a small part of his output which included all types of steam engine for the world market, and the first viable internal combustion engine. But the quality of his products too is shown by the numbers that survive.

3.1 Bedford Plough and Engineering co**.,** Bedford**:** H P Saunderson founded his Saunderson Tractor and Implement Company in Elstow, Bedford in 1890, building some of the earliest tractors in the UK. The factory at Bedford continued in operation for many years making small stationary engines as well as agricultural machinery. It was sold in the mid 1930's and became known as

the Bedford Plough and Engineering co., the factory continuing to operate until the 1970s. 4 ploughs are represented in the Survey.

3.2 E. H. Bentall & Co., Maldon, Essex Bentall's are perhaps best known for their barn machinery and stationary engines but William Bentall, (1776-1836) who came from a long line of yeoman farmers, started building ploughs for himself and his neighbours. He opened a small foundry and smithy on land opposite his farmhouse and around 1795 decided to concentrate his efforts on this manufacturing business. He enlarged his foundry facilities and launched the Goldhanger plough on the farming community. In 1866 major new premises were built in Heybridge for the Bentall agricultural works. Edward Hammond Bentall, 1814-1898, succeeded his father at the head of the business in 1836. In 1839 he began to trade under the name of E.H.Bentall & Co Edward Bentall continued to further improve the plough until it gained three first prizes at the Royal Agricultural Society's show in Warwick in 1859. The word of its reputation spread and orders started coming in from all over the world.

Edmund Ernest Bentall started to take over the management of the business from his father, Edward, in 1889.
In 1946 E.H.Bentall & Co was recognised as a public company with the fourth generation, Charles Bentall, as Chairman.
In 1955, the year the firm celebrated it's 150th anniversary, Charles Edward Bentall died. In 1961 the company was taken over by the Acrow group of companies which went into receivership in 1984.
(from website *Its About Maldon,* 25.7.11)
Only two ploughs from this extensive output survive in the Survey sample, together with the 'Bigglestone' broad share plough now at Brook museum. This was a stubble cleaner, not really a plough.

3.3 John Cooke & Sons, Lincoln Between 1850 & 1920s Cookes were the largest plough makers in Lincolnshire, also making carts & wagons, with business throught the UK and overseas. John Cooke started as a wheelwright at Eagle, nr. Lincoln before 1841. He exhibited a plough at the RASE show in 1954. By 1861 he was trading in Lincoln specialising in 'Prize Ploughs'. For more information see article by Hugh Cooke in *Ploughs, Chaff Cutters & Steam Engines,* SLHA, 2007. 26 examples survive, 14 of which are in Lincolnshire. Turnwrest plough at CFM was common in Fens as they were useful for lifting bulbs. **The XLSS match plough at MLL is in its original paintwork and is extremely important**. 28 Cooke's ploughs are featured in this survey.

3.4 Richard Hornsby & Sons; Ruston & Hornsby post 1918, Grantham Major national company with wide range of products. Richard Hornsby started as a blacksmith in Grantham in 1810 but grew to be a major company of international significance. They merged with Rustons of Lincoln in 1918 but continued to make farm machinery at Grantham. Ploughs with just the Hornsby name are significant. The Hornsby Reversible plough at MERL is unusual. 6 of their ploughs are in the survey, together with 10 Ruston & Hornsbys made after the amalgamation in 1918.

3.5 J & F Howard, Bedford A major company with a wide range of products. Their ploughs are particularly wide spread. There are 23 examples in the survey.

3.6 Ransomes *See Appendix Two*

3.7 George Sellar, Huntly The 'Scottish Ransome'. Important maker producing wide variety of ploughs. MP6 is an important type.

3.8 J. Wallace & Son, Glasgow Made and sold a wide range of agricultural implements & machines.

4. Non-UK makers

4.1 Cockshutt, Canada *See Appendix Three*

4.2 Mellotte, Belgium These were introduced into the UK after WWI. Had an agency in Grantham?

4.3 Oliver, USA *See Appendix Three*

4.4 Parlin & Orendorf, USA. (NMS) Significant survivor, unusual import.

4.5 Phillip Pierce & Co., Wexford, Ireland. The Pierce factory was the largest factory in Ireland making agricultural machinery and ranked with many well known engineering firms in both England and Scotland. The name Pierce was synonymous with all that is best in the agricultural engineering trades in the late 1800s and early 1900s. In the year 1839, James Pierce, a native of Kilmore, a fishing village in the South Coast of County Wexford, Ireland set up his own business and laid the foundations of this large company. He was by trade a millwright but also possessed exceptional technical abilities and a modern outlook. Having been established in 1839 by James (1813-68), the Pierce Ironworks

Foundry was subsequently developed by the Pierce brothers Philip (1850-95), Martin (d. 1907) and John (d. 1926).

4.6 Syracuse, USA These ploughs were introduced into the UK between the wars.

4.7 I Viaud & Co., Barbezieux, France Agricultural machinery producer specialising ploughs. Works established in 1880 and was still in existence into the late 20th century.

4.8 Wiard, New York. Another unusual American import.

5. Ploughs with no maker listed

167 ploughs in the survey had no maker listed. Some of these are early wooden ploughs and some are highlighted below as of special significance. However, if these 'anonymous' ploughs have no special features or any special and important provenance, they could well be considered first for any rationalisation programme.

However, MERL has a very special collection of 20 ploughs representing different regional types mainly from the south of England and the West Country. This collection is certainly of national significance.

Denny Abbey has the church plough from Bassingbourn. It was kept in the church for many years and is an example of the connections between the farming year and the pattern of religious celebrations. Records exist from 1899 when even then it was then considered historically significant. Denny Abbey also has a plough that was used for Plough Sunday in Haddenham church. Church ploughs also exist in Norfolk, but is this an East Anglian phenomenon, or are their church ploughs in other parts of the country? This is an area that would benefit from further research. Ramsey Rural Museum has a wooden plough with a date of 1745.

Leicestershire has a very unusual all wooden mole plough which appears to be of early date and is one of only 7 Mole/subsoil ploughs recorded in the survey. It is currently in poor condition, and should be considered urgently for conservation.

Brook has two Kentish turnwrest ploughs which are regionally important. Gressenhall has a nationally important collection of its local type – the gallows plough. Somerset has a good example of a regional 'Somerset' plough.

Other 'anonymous' ploughs may have similarly significant origins but it is not possible to descern this from the survey returns.

6. Ae Forestry Plough collection.
The property of the Forestry Commission, held in Ae Forest, Dumfriesshire.

Note by Duncan Dornan

The 17 ploughs listed in the database as Ae Forest ploughs are a unique assemblage within the UK and provide a good cross section of the machines produced for ploughing land prior to tree planting. This technique was widely used from the 1940s through to the 1980s, however the system has now been abandoned primarily because it resulted in limited tree root development and instability. Despite this the ploughs are important as survivals of a period of intense technical development to meet extreme environmental challenges, additionally they represent the work of innovative engineers and often courageous operators.

The ploughs range from early Begg agricultural ploughs modified for forestry purposes through a range of examples from the two main manufacturers; Clark of Parkgate, Dumfries and Cuthbertson of Biggar, South Lanarkshire, alongside an example of the Finnish, LOKOMO competitor. The collection also contains a number of research and development prototypes produced by the commission in the 1970s.

This collection of ploughs, which were rare even when new, is a remarkable resource and worthy of national recognition as part of this review.

APPENDIX TWO

Ransomes ploughs

Neil Syrett, a practising horseman and private collector of ploughs.

RANSOMES Pre1844

This list is produced from parts lists and flyers. Catalogues did not appear until the 1850s; the nearest to these were the descriptive lists for the Royal Agricultural Society of England [RASE] meetings, but ploughs in these are only those on show at the meeting, and given County names, sometimes with a frame marking i.e. FF but rarely. It is possible that County were names were marked the frames. I have an example of a potato ridger marked NORTHUMBERLAND on the frame. Some flyers give numbers but this seems not to be for type as different flyers give different numbers for the same plough.

1835

LIGHT PLOUGHS (Single horse)
FF
RS
NN
U

STRONG PLOUGHS (Two horse)

A	AD
H	AL
R	LL
AC	NL
RL	RM

1842 PARTS

FRAMES
FF, FFG, U, AA, BB, T, TA, TL, Drag 1, Drag 2, 100, 106, 100/87, 103

The most common plough found from this period is AY which does not appear in any of my lists.

I also have an example of a wooden plough the only iron being the point and socket, knife coulter and attachment and hake not the quadrant. I believe it to be similar to the example at MERL except MERL's had a draughtbar. It is marked HW and does not appear in any list.

J R & A RANSOMES 1844

A revolution, this is the descriptive list for the 1844 Southampton meeting of the RASE. All the new ploughs shown had wrought iron beams and were described as "trussed", that is a single iron beam was split and passed both sides of the frame to give greater strength. Some of the ploughs also had a leverneck, as it would become known, to enable the share's pitch and lead to be adjusted in relation to the plough.

YC Very strong plough, up to six horses
YD Very strong plough, up to four horses
YE Light plough, up to two horses
YJ Light swing plough, two horse
YK Strong plough, up to four horses in line (DERBYSHIRE)
YL Improved RUTLAND LEVERNECK, two horse
YM Two horse
YN Strong plough, up to four horses (YORKSHIRE)
YO Strong plough
YP Plough for mixed soil
YG Turn rest swing plough (note spelling of Turnwrest)
WSR Improved Kent turn rest (WOOD) gallowsiron
RUTLAND marked NL (wood beam seen in earlier lists)
Light land plough marked FF (wood beam seen in earlier lists)
LOWCOCK'S PATENT plough (A reversible)

RANSOMES & MAY 1851

Almost a catalogue as we would know it, but many of the ploughs were still only described.

<u>IRON PLOUGHS</u>

YNW Extra strong plough (West Indies)
YCP Same but smaller (WI+SA+US)
YFS Same but smaller (NZ+Australia)
YJW Lighter in weight that YCP (WI)
YL See 1844
YL Same as YL but lighter
YE Same as YL but lighter and no leverneck (South Aust+US+Bengal)
YFL Up to four horses, open frame
YLN Same as YL but stronger, up to four horses (second handle now attached to beam at front)
YSH Kent plough (not turnwrest)

YRR Double furrow

WOOD PLOUGHS

BEDFORDSHIRE	AL	See pre1844
" "	LL	" "
LIGHTER PLOUGH	FF	" "
RUTLAND	NL	" "
Turn rest	WSR	See 1844

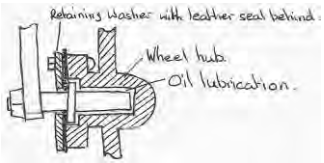
RANSOMES & SIMS 1857

YL See 1844. 20 types of mouldboard listed
YRC Same as YL but no leverneck
VR Light plough with leverneck
VRL Same as VR but lighter
VRS Same as VR but heavier, up to four horses
BFI Pony plough
BFO Same as BFI with wooden beam and handles
BFS Same as BFI but stronger
BFSD Two horse double furrow
VSD Three horse double furrow

RANSOMES, SIMS & HEAD 1869

In 1864 at the Newcastle meeting of the RASE, Ransomes introduced the "Newcastle" plough range with trussed beam but, unlike the Y range of 1844, the frame did not pass around the knife coulter only the frame. "Leicester" pattern wheels were introduced on the range but they may only have been an option as most "Newcastle's" seem to be found with standard wheels.

LEICESTER PATTERN, WHEEL HUB AND AXLE



BFS
BFI See 1857
BFO

RND Light land, two horse, recommended to replace YOH

RNE Light or mixed soil, up to three horses, recommended to replace YFL
RNF Mixed or heavy soil, up to four horses, recommended to replace YL
RNG Heavy soil, up to six horses
TC Strong plough, swing draught bar
SCW Scotch plough
YFR Large plough up to 18" furrow, up to three pairs oxen or four horses
LIN2 Wood beam + handles, Newcastle fittings
RET Export
RGT Export
Turnwrest (SKELTON Pattern)
SPTL Light land, two small horses
SPT Medium land, two large horses
SPTH Heavy land, four large horses
YFRM 3 furrow, up to eight horses or six pairs oxen
RNDD 2 furrow, three horses) RN
RNED 2 furrow, four horses) fittings

RANSOMES, SIMS & HEAD 1878

During the Ransomes, Sims & Head period the RH range of light horse ploughs appeared.

RHA Replaces BFI
RHB Replaces BFS
RHC halfway between RHB and RND
SPT See 1869
SPTH See 1869
RNDD6 Double furrow, Newcastle fittings
RNCD Double furrow, Newcastle fittings
RLCD Light double furrow, RL fittings
WOLD Wood beams + handles, RL fittings
WOED " " " RN fittings
RLM 3 furrow plough, RL fittings
WRNE Replaces LIN2 but will still be supplied if required
TC See 1869
SCW See 1869
RND See 1869
RNDH See 1869
RNE See 1869
RNF See 1869
RNG See 1869

RANSOMES, SIMS & JEFFERIES 1885

RND See 1869
RNDH " "
RNE " "
RNF " "
RHA See 1878
RHB " "
RHC " "
RHD Same size as RND
WRNE2 Replaces WRNE
ECP Wood beam + handles (ESSEX swing type)
RCP Wood beam + handles (OLIVER type)
IRCP Iron RCP
SCP Deep digger plough
SPTH See 1869
RNCD)
RNDD6) See
RLCD) 1878
WOLD)
EXMH 3 furrow
SEED 4 furrow

RANSOMES, SIMS & JEFFERIES 1898

Ransomes introduced a simplified range of Newcastle's, the SOLIDS. They had no leverneck and the beams were not trussed.

RND Solid
RNE Solid
RNF Solid
RND)
RNDH) See 1869. GDN and IRCP type bodies can be supplied to fit any Newcastle plough
RNE)
RNF)
WRNE2 See 1885
RHA)
RHB) See 1878
RHC)
RHD See 1885
SHP Smallholding plough, pony or small horse
TCP) Digging
TCPH) type
WTCP Wooden beam + handles

LCP Larger digging plough than TCP
WLCP Wooden beam + handles
IDCP Similar to the TCP
IRCP SOLID, heavier than IDCP
GDN Deep digger plough
TCPB) Balance ploughs 518lbs
TCPBL) with TCP bodies 406lbs
RNPB Balance with Kent bodies
ILDT "ONE WAY"
LCPD Double furrow, LCP bodies

RNDD6)
RNCD) 1878
WOLD)
YYLD Double furrow, YL fittings
WRNCD) Double furrow, wood beam 392lbs
WRNCDH) + handles, Newcastle fittings 420lbs
DBDLS Light double furrow
SDLM 4 furrow
EXMH See 1885
DRMH heavier 3 furrow than EXMH
SGFM 3 furrow, ride on YL bodies

RANSOMES, SIMS & JEFFERIES 1914

The turn of the century saw the updating of the main Newcastle range given the same single beam as the SOLIDS. The YL also reappears in the catalogue which asks the question was it available before but it's sale not encouraged and the listing a climbdown due to demand?

RND4
RNDH4
RNE4
RNF4
RND SOLID) See
RNDH SOLID) 1898
RNE SOLID)
YL
YFLW-YL
SHP 1898
RHA) See
RHB) 1878
RHC)
RHD 1885

<u>BALANCE PLOUGHS</u>
LLB
RLB
EDB
1DCB
HCB
KCB
KCBL
LKB
DKB Double furrow balance
ILDT See 1898

<u>DOUBLE FURROW PLOUGHS</u>
RBYD) Newcastle

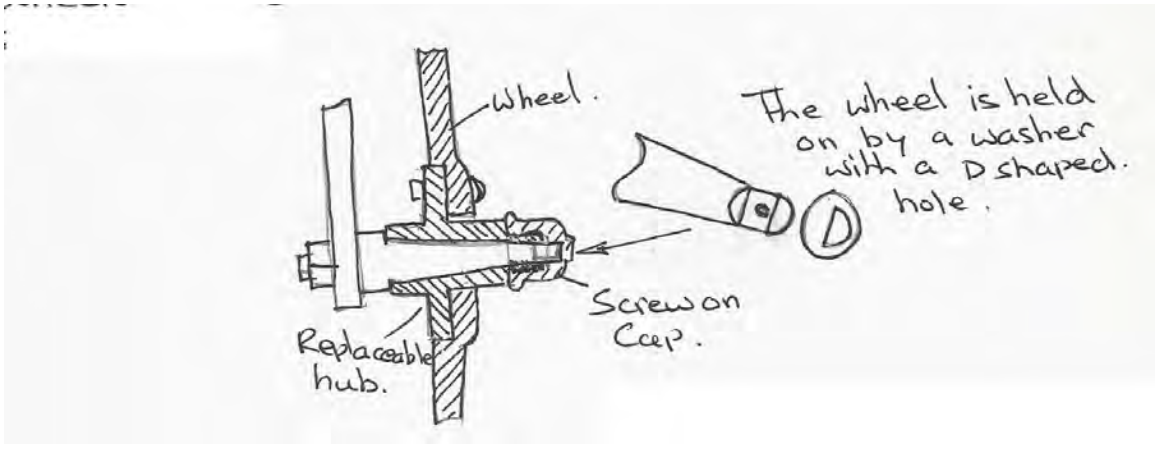
TCP) 1898
TCPH)
IRCP 1898
IRDCP)
IRDCPL) Digging
ICP) Ploughs
ICPL)
IDCP 1898
GDN 1898
WTCP) 1898
WLCP)
IBP) Bar
IRBP) Point
IRBPL) Ploughs
TCPB
TCPBL

RCYD) bodies
RBYD2 Same as RBYD but with lifting wheels
YLDA 3 versions: 1) Bowl wheel
2) Lifting wheels
YL Bodies 3) Double levers
YLDAL Lighter version with the same 3 variations
SHPD SHP Digger bodies
SHPD-RHA RHA bodies
EXMH See 1885
EXMI Same as above but with lea bodies

RANSOMES, SIMS & JEFFERIES 1930

No sign of the Depression having an effect on the range produced. The Newcastles changed to the 7 series, the main change in the quadrant for the hake. This was now cast and bolted to the beam, some of the other types also had this change, i.e. TCP, LCP and IRDCP.

In 1921 wheels also changed on almost every plough, the wheels were given replaceable hubs with left- and right-handed screw on caps.



RND7
RNDH7
RNE7
RNF7

RND SOLID)
RNDH SOLID) See 1898
RNE SOLID)
No.136 for Yorkshire
No.136 SOLID No leverneck
No.137 Newcastle fittings
CLAKUT For
BEDFORDSHIRE
HERTFORDSHIRE
HUNTINGDONSHIRE
YL
YFL-L listed in 1914 as YFLW-L this meant the frame was wrought iron now meaning cast iron frame. Many Ransome ploughs were available with both.

FRUTRA Moveable handles to allow ploughing between trees
RHA2
RHB) 1878
RHC)
RHD 1885
RSHP RSH2 with SHP body
SHP) 1898
SHP-RHA)
TCP) 1898
TCPH)
WTCP2
LCP
LCPS
LCPH2
WLCP2
ICP2
ICP
IRDCPL
IRDCP3
GDN
SCPS
IRCP7

BANTAM Newcastle fittings
BANTAMAJOR YL fittings
BANTAM DIGGER IRDCP fittings
BANTAM SENIOR
RNBPL 1914 234lbs
RNBP 1914 256lbs
RNBPH 300lbs
RAYD3
RBYD 1914 Can be fitted with TCP
RCYD 1914 RBYD-TCP
BBYD2 1914
YLDA 1914
YLDAL 1914
RNAD double furrow
Kutkleen YL bodies double furrow
Cotswold " " " "
(Same as Cockshut Kangaroo from Canada)
SHPD3
SHPD3-RHA
EXMH 3 furrow
EXMH 4 furrow

BT) light
CTI) turnwrests
EXO two horse turnwrest
ILDT 1898
SCPB)
TCPB)
TCPB2)
TCPBL)
TCPB-RND) Balance
TCPBL-RND) Ploughs
IDCPB)
LLB)
RLB)
EDB)
DUCH7)

RANSOMES 1951

This list is produced from a spare parts catalogue for horse ploughs and as such shows the last ploughs available.

IRDCP3) 1950
IRDCPL)
IRDCPH4M
YL
YLDA
BANTAM SENIOR 1930
BANTAM SCOTCH Seems to be BANTAM DIGGER 1930
GUDEKUT) BARPOINTS
GUDEKUT S)
GUIDTOP
RNBP – 1914
RNBPH – 1930
RNBPL – 1914
RNBPL 2HW BARPOINT
GALLOWAY BARPOINT
TCP) 1898
TCPH)
GDN 1898
RND 7)
RNDH7) 1930
RNE7)
RNF7)
RND SOLID
RNE SOLID)
RNDH SOLID) 1898

I have not seen a solid plough with a malleable cast head as the 7s but I do not understand why the change was not made.

SHP 1898
SHP-RHA 1914
RHAL 1930
RHB)
RHC) 1878
RHD)

Comment
How rare different models are is difficult to evaluate as many can be regional, making what may seem common in one location quite rare nationally. Pre-1900 will tend to be rarer (they are more likely to be worn out). Pre-1850 are rarer still, but we have to be aware that non-Ransomes manufacturers, i.e. NORFOLK foundries, continued to make wooden beamed and handled ploughs well into the 20th Century. Ploughs post-1945 are also not common as the market had disappeared, but those that do turn up are often unworn and possibly had never been sold.

The best way to decide what may be rarer is to include some private collection lists if possible, with that in mind this is a list of Ransomes ploughs I have with an indication of condition and age.

1. Complete, Useable. 2. Largely complete. 3. Incomplete.

AY Pre1850	2	RND Solid 1898-	1
Bantam 1930-	2	RND4 1914-20	2
Bantam Digger 1930-	2	RND4 (Short Beam)	2
Cotswold 2F 1930-	2	RNDH7 1921-	2
EDB 1914-	2	RNE4 1914-1920	1
Kutkleen 1930-	2	RNF 1864-1900	1
ILDT2 1930-	2	RHA (Draught Rud) 1878-	1
IRDCP3 1930-	2	RHA (Hake) 1878-	2
NGC Not listed Gallows	2	RHB 1878-	2
YL Pre1920	1	RHC 1878-	1
YL Post1921	1	RHD 1878-	2
YFL-YL 1914-	1	SHP-RHA 1898-	1
YLDA (Lift) 1914-	2	TCP 1898-1920	1
YLDA (Bowl) 1914-	1	TCP 1921-	3
YLLD Not listed 2F	1	TCPH 1921-	2
RBYD 1914-	2	LCP 1898-	1
RND 1869-1900	1	LCPH2 1898-	1
RNHD 1869-1900	2	WLCP 1898-	2
		HN Pre1850	2

Some Museum holdings

MEAL	AY Pre1850	
	AY Competition260? Pre1850	
	ELITE? YLDA 1920-	
	KCB 1900-1920	
	RHA2 1930-	
	RNE7 1920-	
	SHP 1890-	
	GALLOWS Poss NGC? 1930-	
	2 x YLDA 1920-	
MURTON	2 x BANTAM 1930-	
ACTON SCOTT	ILDT 1895-1940	
	RBYD 1910-1940	
	RNBPL 1910-	
	RND7 1920-	
PRIEST HOUSE	BFI 1855-1875	**rare**
BROOK	DKB 1900-1914	**rare**
DENNY ABBEY	GDN 1895-1940	
	CLAKUT 1945	
	VRL2 1855-1865	**rare**
SHUGBOROUGH	LCP2 1930-1940	
HARTLEBURY	RHA2 1930-	
TILFORD	RHA2 1930-	
	RNDH4 1900-1920	
CHILTERN	RNE SOLID 1890-	
BEAMISH	RNE4 1900-1920	
LINCOLN	2RNE7 1920-	
	WRNE2 1880-1900	**rare**
GRESSENHALL	YL) WORKING	
	YLDA) PLOUGHS?	

APPENDIX THREE

'Oliver' and 'Cockshutt' Plows in Scotland

Bob Powell

Up to the end of the 1800s, most Scottish 'ploomen' were mainly used to either blacksmith or small industrially manufactured general purpose, especially long-turn 'oat seed furrow', ploughs that turned a mostly unbroken or continuous furrow. The end result was furrows condusive for sowing especially grain by both manual and implement broadcasting. This was to change.

By the early 1890s, John Wallace of Glasgow introduced a range of Oliver 'plows' from America. The plows, models such as the #10, #40, #110 were suitable for one horse on a croft to a 'pair' on a farm. These ploughs were much shorter than those traditionally used in Scotland and significantly had a shorter, steeper 'chill' or digger mouldboard where the resultant furrow produced was often wider, deeper and significantly broken rather than continuous. The latter was, following harrowing, more appropriate, for example, for sowing by direct drilling.

Again, in 1894 Alexander Jack of Maybole, Ayrshire introduced the 'Dux', the 'New Canadian Plow' manufactured by Cockshutt, Ontario, Canada. Like the 'Oliver' the 'Dux' with it's wooden handles was lighter than most of the Scottish ploughs and again, like the 'Oliver' being mainly a wheel-less 'swing plough' appealed to the Scottish ploughmen. The 'Dux', a more general purpose / semi-digger plough whose development in Canada had been influenced by Scottish ploughs either imported into Canada by Scottish immigrants or made by immigrant Scottish blacksmiths, tended to be longer than the 'Oliver' and that too added to its popularity in Scotland. The 'Dux' was manufactured both as a single furrow plough for a pair of horses and as a double-furrow for a three-horse team.

Both ploughs, the 'Oliver' and the 'Dux' had a significant effect on Scottish farming. Tending towards the traditional appearance and style of Scottish ploughs and ploughing, they were widely adopted in large numbers, hence their appearance in the RMN plough survey. Equally too their adoption in Scotland coincided with the development of implements, machinery or practices that suited their 'general purpose' or 'broken' work. There were other effects too. Firstly, on the subsequent move by Scottish and other UK plough manufacturers to produce their own 'chill' ploughs such as Sellar's of Huntly 'MP' models. Secondly, at the numerous ploughing matches, the need to introduce classes for the new ploughs that as the 1900s proceeded were superceding the traditional long turn 'oat seed furrow' classes.

Both Wallace and Jack were respectively promoting and selling 'Oliver' and 'Dux' ploughs into the 1930s. Of course, by then, the horse and the practices associated were well on the wane.

This note is written to indicate the significance of North American 'plows' appearing in the RMN survey. The subject matter comprises an ongoing study by the writer that is intended to be published in 2012.

APPENDIX FOUR

Tractor Ploughs in the Distributed National Collection

An analysis by Stuart Gibbard, independent member of RMN and tractor historian

1. History

The first tractor ploughs were no more than an improvement of the multi-furrow animal ploughs developed for teams of horses or oxen. The ploughs were strengthened for tractor work and a seat was provided for the operator to ride. The tractor replaced the draught animal and hauled the implement by a length of chain or wire. The operator seated on the plough controlled the implement using a series of levers, which regulated the depth and furrow-width; lifted the plough in and out of work, and steered it as it moved along the furrow.

These early designs were known as 'riding' or 'steerage' ploughs and usually had two or three furrows, although a greater number of furrows were offered for export ('colonial' ploughs) or for tilting in stubble ('stubble' plough or 'riffler'). 'Riding' ploughs were manufactured in Britain by Ransomes, Hornsby, J & F Howard, Bentall, Saunderson and others. The Cockshutt 'riding' plough was imported from Canada by R A Lister, while in the USA a similar type of plough was known as a 'sulky'. The most widely used 'riding' plough was the Ransomes RYLT (Ransomes Yorkshire Light Trailed).

These riding ploughs were outdated by the arrival of the Fordson tractor at the end of the First World War. The Fordson could be supplied with a two-furrow Oliver self-lift plough from the USA. This outfit, which was attached to the tractor by a drawbar with the controls within easy reach of the driver, gave one-man operation and was simple to control in the small British fields.

In 1919, Ransomes responded with the RSLD (Ransomes Self-Lift Double), which became a benchmark for the new era of trailed tractor ploughs, which incorporated a self-lift arrangement (usually a ratchet mechanism on the land wheel). Several different British manufacturers offered similar trailed ploughs, and others were supplied from North America. Ransomes remained the most popular make and its models included the Motrac (2-3 furrow), Multitrac (3-4 furrow), Quintrac (4-5 furrow) and Hexatrac (5-6 furrow). For ploughing on certain soils where more depth and strength was required, Ransomes offered the Duotrac (2 furrow), Jumbotrac (2-3 furrow) and Unitrac (single furrow).

The arrival of the mounted plough is often attributed to Harry Ferguson, but this is a fallacy. Neither did Ferguson invent linkage or the hydraulic lift. What Ferguson did was to combine a mounted plough with a *converging* three-point linkage. The converging linkage kept the plough straight in the furrow while transmitting the forces acting on the implement to add weight to the tractor's rear wheels to aid traction and at the same time pushing down on the front axle to keep the tractor stable. Ferguson used a hydraulic lift to raise the plough in and out of work, while incorporating a system of hydraulic draft-control (via top-link sensing) to give automatic depth control.

Ferguson's various manufacturing partnerships with David Brown (Ferguson-Brown 1936-39), Ford in the USA (Ford-Ferguson 1939-47) and the Standard Motor Company at Coventry (Ferguson TE-20 1946-56) resulted in various types of mounted Ferguson plough. The archetypal Ferguson implement is the two-furrow mounted plough for the TE-20 tractor.

Other manufacturers used various arrangements to overcome Ferguson patents on the converging three-point linkage and hydraulic draft-control. David Brown used parallel linkage with a diagonal link or Z-bar fitted to its early mounted ploughs to keep them straight in the furrow. Most manufacturers, including Ransomes, simply fitted a depth wheel to their mounted ploughs to control the depth of ploughing.

There were many designs of reversible ploughs with the early trailed models, such as the Belgian Melotte, being based on the turnover horse plough. Davey Sleep developed a balance plough for tractors while other manufacturers (Allis-Chalmers and David Brown) experimented with ploughs fitted with left- and right-hand bodies that could be raised or lowered separately. Semi-mounted designs (Norfolk Bonnel) and ploughs fitted with a fore-carriage (Bomford-Hosier and Crawford) or tool-carrier (Doe) were something of a halfway house between the trailed and mounted reversible plough.

The mounted reversible plough, as typified by the Ransomes TS82 of 1960, eventually became the norm for wheeled tractors. Such designs, whereby the plough frame revolved to bring the opposite set of bodies into work, incorporated some type of mechanical or hydraulic turnover arrangement.

Modern trends have seen ploughs become larger; incorporating a greater number of furrows to meet the capacity of high-horsepower tractors. Dowdeswell was the first British manufacturer to meet the demands of big tractors, but today's requirements are usually met by imported implements. As ploughs became larger and longer, the solid beam gave way to articulated designs for greater manoeuvrability.

Another trend was the 'push-pull' concept with a plough mounted fore and aft, which was favoured by some manufacturers (Ransomes and Dowdeswell) in the 1980s. Other concepts, such as the Massey Ferguson 270 'Diamond' plough, Opico 'Square' plough and slatted mouldboards, have come and gone, although the 'push-pull' plough is poised for a comeback.

2. Survey

For tractor ploughs, unlike horse ploughs, a true analysis of the survey is impossible because, while the makes are listed, the models and/or types of plough are unclear. Any analysis is therefore inconclusive and any recommendations made are of uncertain value. It does however, give an overview of the makes and distribution of tractor ploughs in the Distributed National Collection, providing topics for discussion and highlighting areas where further research and/or study is required. Large numbers of ploughs, particularly the more common models, have been preserved by the private sector, but there are gaps, which perhaps need to be identified.

3. Analysis

(Note: references are made to the ploughs as numbered on the database)
Most types of Ferguson plough (2, 5, 12, 13, 15, 19, 22, 61, 66, 70) are commonplace. However, the two-furrow mounted Ferguson plough is a seminal item that arguably has a place in any interpretive display. Early Ferguson ploughs from the Ferguson-Brown era are historically important, as are any ploughs that emanate from Harry Ferguson's early experiments. The Massey Ferguson ridger (69) is probably of little significance.

Most models of Ransomes ploughs (20, 27, 29, 31, 32, 51, 53, 54, 55, 56, 57, 58, 59, 62, 64, 68, 72, 73) are also commonplace. However, one would hope to see an RYLT and an early RSLD (20?, 32, 64) represented in the Distributed National Collection. The plough listed at 54 (YLDA is a body) could be an RYLT or RSLD. The TS54 Robin (31) is interesting in that it is Ransomes's interpretation of the Ferguson plough, and the TS42 (27?, 72) was made for the Ransomes MG crawler. The TSR300 (55) *could* be a 'push-pull' plough. I have been unable to identify: 29, 51, 56, 57, 58 and 59; 73 appears to be a cultivator.

David Brown ploughs (23, 24) are very common unless they happen to be a trailed, early mounted (with the diagonal link) or early reversible type. The ploughs manufactured by Newlands (3), Sellar (16,17), Begg (18, 36, 37), Jones (63) and Talbot (65) have local interest. Ploughs housed at Kittochside (33-50) include implements specific to the forestry industry that hold particular interest to the region's historical and geographical makeup. The Ledmore plough (26) was also connected with forestry and was designed for 'lining out' (planting) saplings.

Ploughs imported from North America include Oliver (8), Massey-Harris (25, 30) and Cockshutt (71). The Allis-Chalmers (67) may not actually be a plough. None are scarce, although the Oliver would be of historical interest if it was one of the models supplied with the Fordson Model F (MOM) tractor during the First World War. The Cockshutt would also be of interest if it was an early 'riding' plough.

The Trusty ploughs (14, 52 – Tractors (London) Ltd was the Trusty manufacturer) are made specifically for the Trusty pedestrian-controlled tractor. Neither the plough nor the tractor is of any particular historical significance.

4. Conclusion

The distribution of the ploughs is as one would expect with most of the major and a selection of regional makes represented. Few seem to be of any great historical significance, and there is scope for better representation of the development of the tractor plough. Conventional trailed and mounted ploughs seem to be well represented, as are specialist forestry ploughs. However, there seems to be few (if any) reversible ploughs or any attempt to preserve tractor ploughs from the 1950s onwards. What the survey cannot reveal is if any of the ploughs have any intrinsic history or particular provenance (owned by a local family of importance to the area, for example) attached to them.

5. Recommendations

There are probably several tractor ploughs taking up space in museums that are duplicated elsewhere, are of little historical significance or are well represented in significant number in the private sector. However, more information or a closer

inspection would be required before any recommendation could be made for disposal. There are also wide areas not represented in the National Collection, some of which I have identified and detailed below.

6. Not Represented

6A 'Riding Ploughs'

There is no conclusive evidence in the survey of the existence of any early tractor 'riding' ploughs in the National Collection. There may be some hidden among the listings, but it would be a shame if none are represented.

6B Reversible Ploughs

Most types of reversible ploughs are represented in the private sector, including Ransomes, Crawford and Doe. Not seen (or known) in the private sector are examples of the Bomford-Hosier and Norfolk Bonnel.

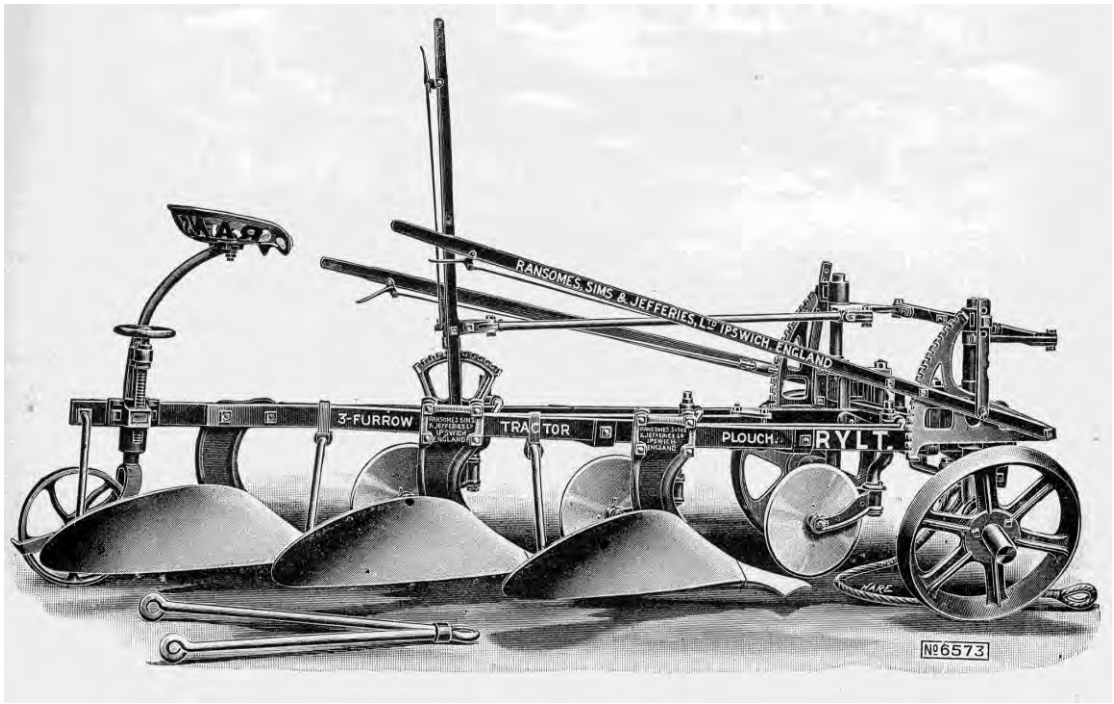
6C Unconventional Ploughs

The Distributed National Collection offers an opportunity to preserve unconventional types of ploughs that have been ignored by the private sector but are of great technical interest. These include the Wilmot Turnall, Fisher Humphries Deepacre and the SKH (Salopian Kenneth Hudson) disc plough.

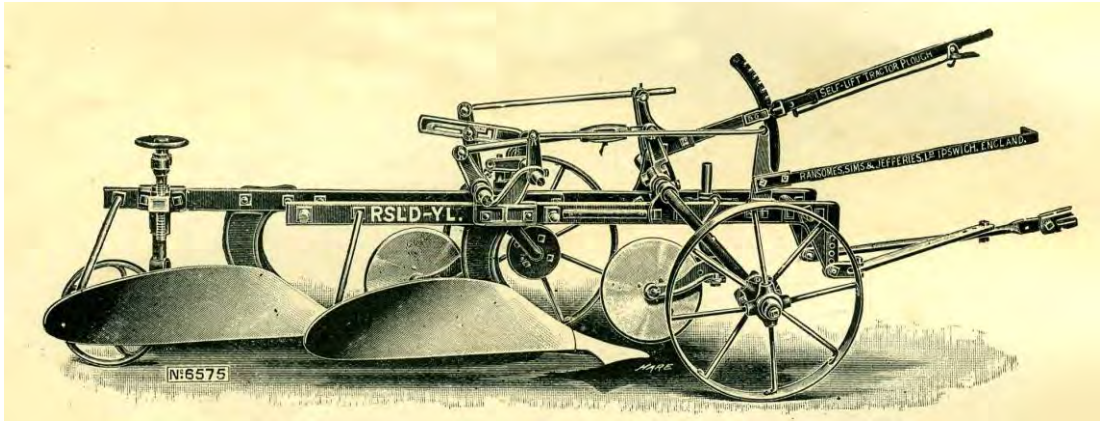
6D Modern Ploughs

Modern trends not represented in the Distributed National Collection include any Dowdeswell ploughs (the Dowdeswell DP1 would be of most historic interest), a 'push-pull' plough (unless represented at MEAL), the Massey Ferguson 270 'Diamond' plough or the Opico 'Square' plough.

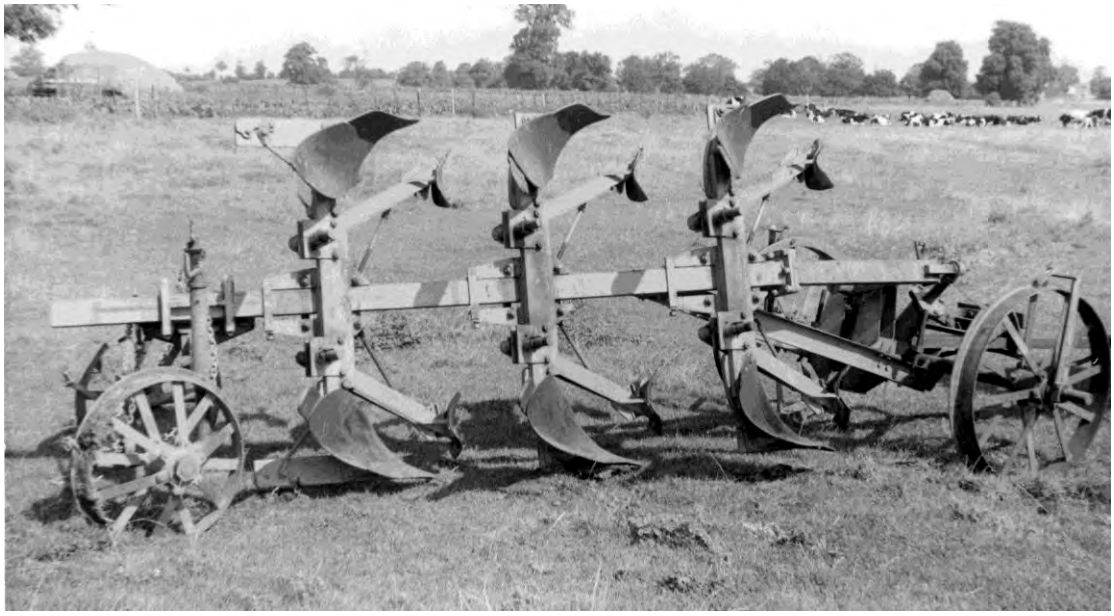
7. Images



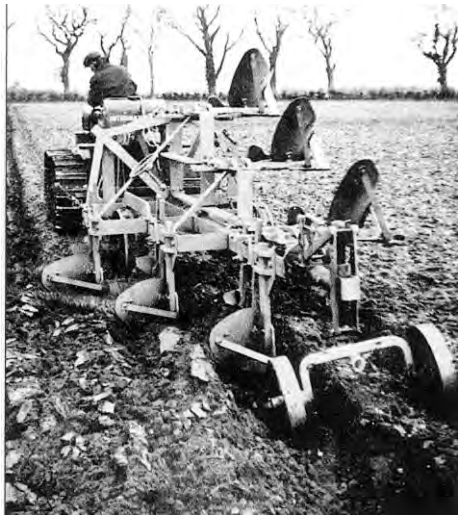
Ransomes RYLT 'Riding' Plough



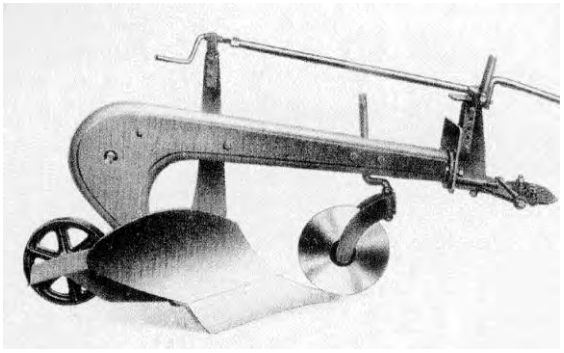
Ransomes RSLD 'Trailed' Plough – 1919



Bomford-Hosier Reversible Plough



Norfolk Bonnel Plough



Wilmot Turnall Plough

Fisher Humphries Deepacre

SKH Disc Plough

Dowdeswell DP1

Ransomes TSR300 Series ‘Push-Pull’ Plough

Massey Ferguson 270 Diamond Plough

APPENDIX FIVE

RURAL MUSEUMS NETWORK

DIGGING DEEP
A survey of ploughs in museums

Jim Elliott, champion ploughman, of Beamish, with his team at the British National Ploughing Championships, Grange-de-Lings, Lincoln, October 2010.

A project funded by the Museums Association's Effective Collections Programme

Please return this survey by 28 FEBRUARY 2011 to:

Mrs Catherine Wilson
Penates, 5 Station Road, Reepham, Lincoln, LN3 4DN
Tel: 01522 754020 e-mail: penates@o2.co.uk

THE SURVEY

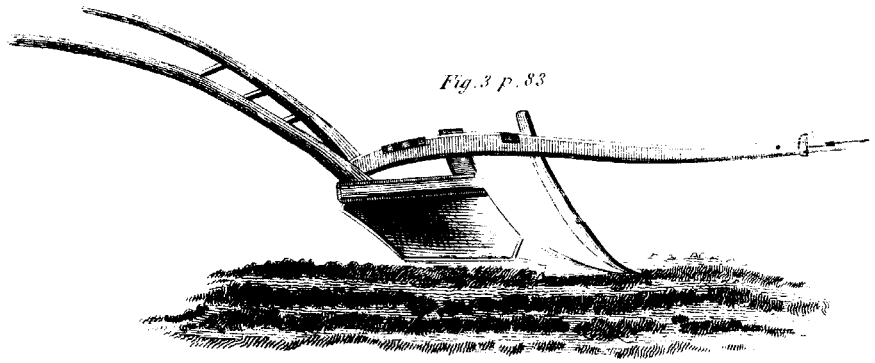
The aim of this survey is to gather information on the number and type of ploughs preserved in the UK's rural museums. Participants include those museums in membership of the Rural Museums Network and other notable collections brought to the attention of the RMN committee. This is a qualitative as well as a quantitative assessment to establish the location of significant individual objects and collections of national or regional importance; to assess the total numbers of these objects and whether there is substantial duplication; to gain an idea of their condition and possible conservation needs. In order to be meaningful we need the survey to be as complete as possible and therefore hope that all of you will be able to complete the questionnaire. If anyone has particular problems and/or would like support with this please do contact the organiser.

Background and definitions

This survey is restricted to implements of wood or iron which are designed to turn the soil in furrows and require the motive power of an animal, steam engine or tractor to pull them. The main focus is on horse-drawn ploughs as they are numerically the largest surviving group but tractor and steam operated implements are also included. Hand plough, breast plough or man ploughs are excluded, not because they are not important, but to keep the volume of information to a manageable level, and because it is the larger items that create more of a storage and display problem. Also excluded are cultivators, harrows, skerries, rolls or other implements used as part of the cultivation process.

The initial survey undertaken by RMN in 2003/4 (*Sorting the Wheat from the Chaff,* Viner & Wilson, 2004) indicated that there were in the region of 1000 horse ploughs in member museums' collections, and that many of these were stored outside in conditions leading to deterioration. However, no further details were gathered at that time. Now many more museums are looking to rationalise their collections and improve the conditions in which those that remain are stored. The results of this survey should enable museums considering disposal to do so on the basis of knowledge, not only of their own collections but also of national holdings; and will enable them to identify any ploughs which are of particular significance both locally and nationally.

Some information has been taken from *Farm Tools Through the Ages* by Michael Partridge published in 1973, which is an invaluable reference source. The drawings used in this Survey are from catalogues held by MERL, kindly sourced by Jonathan Brown. If the subject of ploughing is new to you, please acquire a copy of Roy Brigden's Shire Album *Ploughs and Ploughing* which explains the basics very clearly.



Type 1. Pre-industrial plough. A swing plough from the North Riding of Yorkshire, with wooden beam. [35/1134]

To try to ensure consistency of answers the following Range statements are given for guidance. Please use the relevant number in the appropriate column when completing the questions.

Column 2. Types of plough

1 pre-1850
2 Swing
3 Wheeled - digging type (with short, steeply curved mould board)
4 Wheeled – lea type (with longer, gently curved mould board)
5 Double furrow
6 Turnwrest or one way
7 Ridging
8 Gallows
9 Subsoil/mole
10 Other

Column 5. Materials

1 Largely wooden construction; metal share and coulter
2 Largely wooden construction; metal share, coulter and iron or wood sheathed with metal mouldboard
3 Wooden beam, rest metal construction; or composite beam (wood & metal)
4 All iron plough, made by blacksmith or local small foundry
5 All iron plough, factory made
6 Competition plough

Column 6. Conservation

1 Complete, good original condition, or well restored to original condition
2 Complete, good condition, repainted but not to original specification
3 Reasonable condition but needs some attention
4 Fair condition, rusty, small parts (eg share, wooden handles) missing or broken
5 Poor condition, incomplete, significant parts missing or broken
6 Part of working collection

Column 7. Storage

1 Stored/displayed indoors in controlled environment
2 Stored/displayed in doors but in uncontrolled environment
3 Stored/displayed undercover in open-sided shed
4 Stored/displayed outside but sheeted down/ with some protection
5 Stored/displayed in the open with no protection

Column 8. Documentation

1 Fully documented with good provenance and known history of use within collecting policy area
2 Fully documented with good provenance
3 Documented but without full provenance
4 Documentation uncertain/incomplete
5 No documentation record traced

Please complete sections 2 & 5-8 of the questionnaire with reference to these Range Statements. List every plough in the collection separately.

QUESTION ONE - HORSE PLOUGHS

In view of the large number of these, we need a considerable amount of detail in order to be able to make judgements on relative importance, so please LOOK at your collection; don't just answer from your documentation records which may well not give sufficient detail – this is an opportunity for you to improve your documentation as well (see guidance notes below)! It is assumed that the vast majority of surviving ploughs will date from the mid-19th to the early 20th century. Please make a special note of any you think may date from before 1850. Please also highlight any you believe to be a regional type specific to your area.

1. Ref. No.	2. Type of plough *(see* list)	3. Make, model, estimated date *(please look carefully for any name/number; they may not be obvious).*	4. Acc. Number	5. Materials	6. Condition.	7. Storage	8. Documentation	9. Overall length *(centimetres)*	10. Length of mould board
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

Please use further sheets, in the same format, if you need to

QUESTION TWO - STEAM PLOUGHS AND TACKLE

Under this heading, please include ploughing engines and ALL tackle. Use the same range statements for columns 6-8 as for horse ploughs.

1. Ref. No.	2. Type	3. Make &model	4. Date	5. Acc. No.	6. Condition	7. Storage	8. Documentation
1							
2							
3							
4							
5							

QUESTION THREE - TRACTOR PLOUGHS

Please include any horse ploughs converted for tractor use under this heading. Use the same range statements for columns 6-8.

Tractor plough types

1. Single furrow
1. Double furrow trailed
2. Double furrow hydraulic
3. Three furrow trailed
4. Three furrow hydraulic
5. Other

1. Ref. No	2. Type	3. Make & model	4. Date	5. Acc. No.	5. Condition	6. Storage	7. Documentation
1							
2							
3							
4							

5							

QUESTION FOUR – RELATED TRACTORS

Please note here if you have matching tractors for these ploughs – e.g. the Ferguson 'system'. Do NOT list all tractors, only the relevant ones.

1. Ref. No.	2. Tractor make and model	3. Date	4.Acc. No.	5. Condition	6. Storage	7. Documentation

QUESTION FIVE

Please estimate the percentage of the collection which is: a) on display _____%
b) stored _____%

QUESTION SIX – OTHER INFORMATION

Please note here any other information you think is relevant, including your own assessment of items of particular importance.

Guidance notes

There are of course dozens of different ploughs for different purposes and soil types. The firm of Ransomes of Ipswich alone was making 86 different types by 1840! The list of types in this survey is therefore a simplification but gives guidance of the *main* types that are likely to be in your collections. If you have items that apparently do not fit these categories please use the 'other' category and describe as fully as possible.

Ploughs often suffer from poor documentation. Many original records just say 'plough' and, because they have often been kept outside, some of them may well have no visible accession number or label, making proper identification difficult. It may not even be clear whether or not they have been accessioned. This survey should be seen as your opportunity to get to grips with your ploughs once and for all.

Unless there is a drawing or some measurements on the primary record you really have nothing to go on. One approach is to record the actual ploughs that you have in front of you (or can find tucked away in odd corners), in as much detail as possible – type, material, colours, size (overall length including hake is the most important; width across stilts; height; length of mouldboard), any makers name or mark/number; condition - then try to relate as many as possible to the records you have. The ones you cannot resolve can either be identified for part of a 'use' collection; for disposal; or can be (re)accessioned if of sufficient interest to keep. This is not ideal but is a practical way forward. This will require time, but is something that could be delegated to suitable volunteers, and it is a necessary first step to any rationalisation. Even if you have no plans for rationalisation good documentation is necessary for good interpretation.

If you have a large collection and no suitable volunteers, do please consider local farmers and/or the local preservation society who may well be willing to help at least with identification. If all else fails, contact the organiser of this survey as it may be possible to arrange some help.

Please help by completing the Survey as fully as you can; the results will be analysed and a report will be written for the RMN and for the MA.

Your contact details:

Name of person completing the survey_____

Name of Museum_____

Contact details: e-mail: _____

Telephone_____

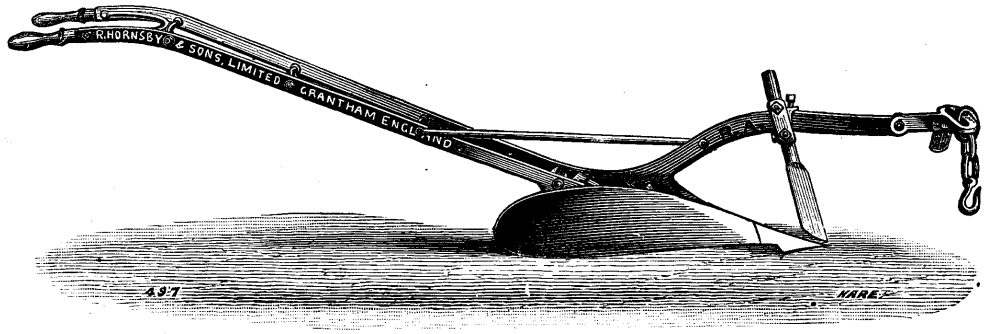
Address_____

_____

_____

postcode_____

THANK YOU FOR YOUR TIME

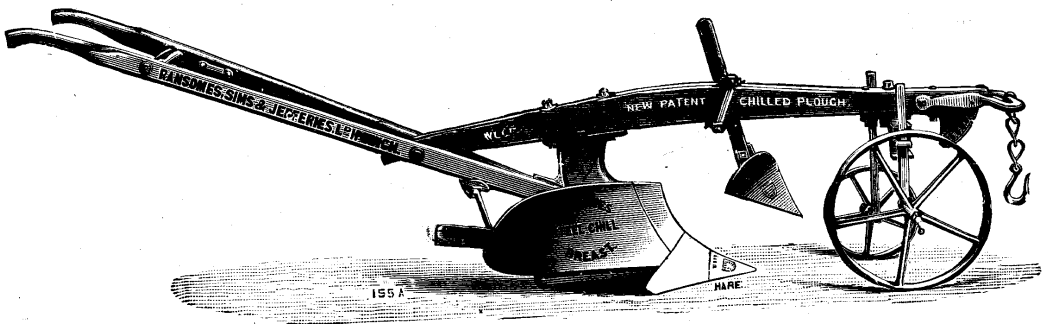


HORNSBY'S SWING PLOUGH, MARKED RA. See page 25.

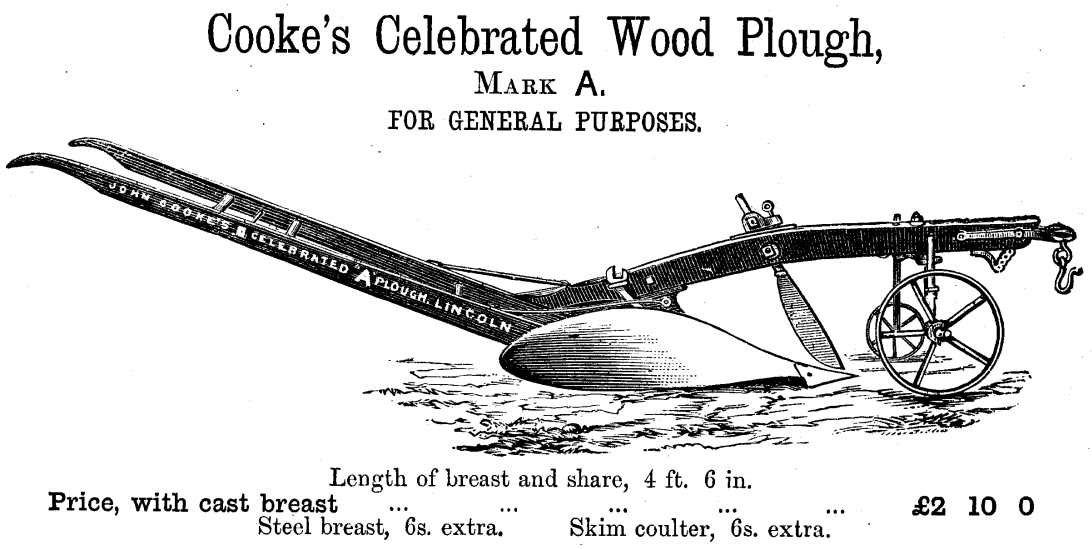
Type 2. Swing plough. A plough with no fore wheels. A swing plough was usually shorter in the beam than the wheeled versions. They were popular in the first half of the nineteenth century, but by its end, most ploughs were wheeled ploughs. This example is from a Hornsby catalogue. [TR RPD P2/A4p48a]

WOOD BEAM "STEEL CHILL" DIGGING PLOUGHS.

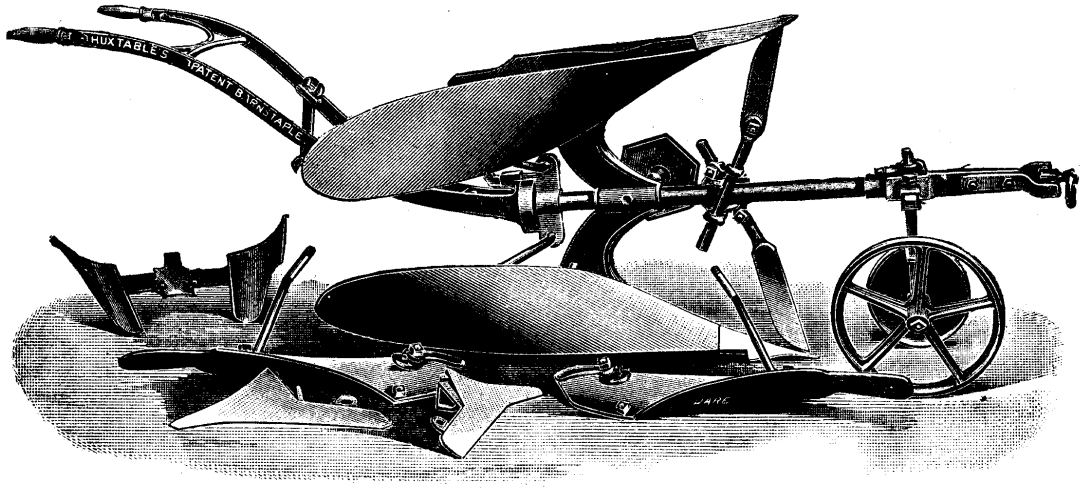
W.L.C.P. & W.T.C.P.



Type 3. Wooden-framed digging plough. A design of American origin, which had some vogue in the late nineteenth and early twentieth centuries. This is a version by Ransomes. [TR RAN PN7246 p68b]

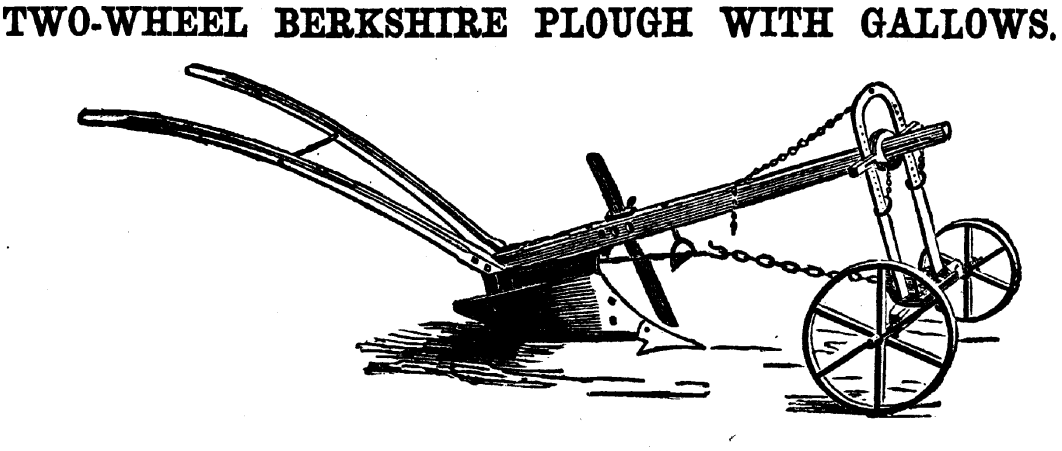


Type 4. Wooden plough. By the 1850s the leading plough manufacturers were concentrating on ploughs of iron construction. But ploughs with wooden beam still had a place. This is Cooke's Mark A plough. [TR SCM P2/B274p15

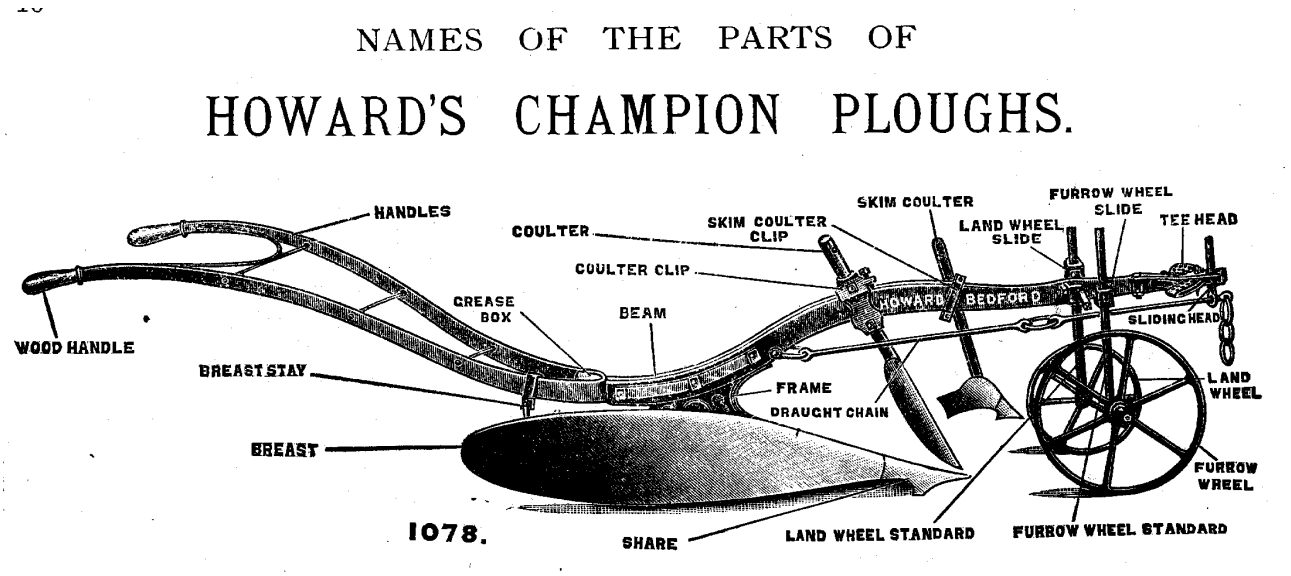


Type 6. One-way plough. One-way ploughs create a field with all furrows turned the same way rather than the ridge and furrow of standard ploughs. Also known as turnwrest and turnover ploughs. This is a one-way plough by Huxtable in which the body is turned over the beam. Another design was the balance (or butterfly) plough, in which the plough is upended like a seesaw to travel in the reverse direction. [TR MRL P2/B81p3]

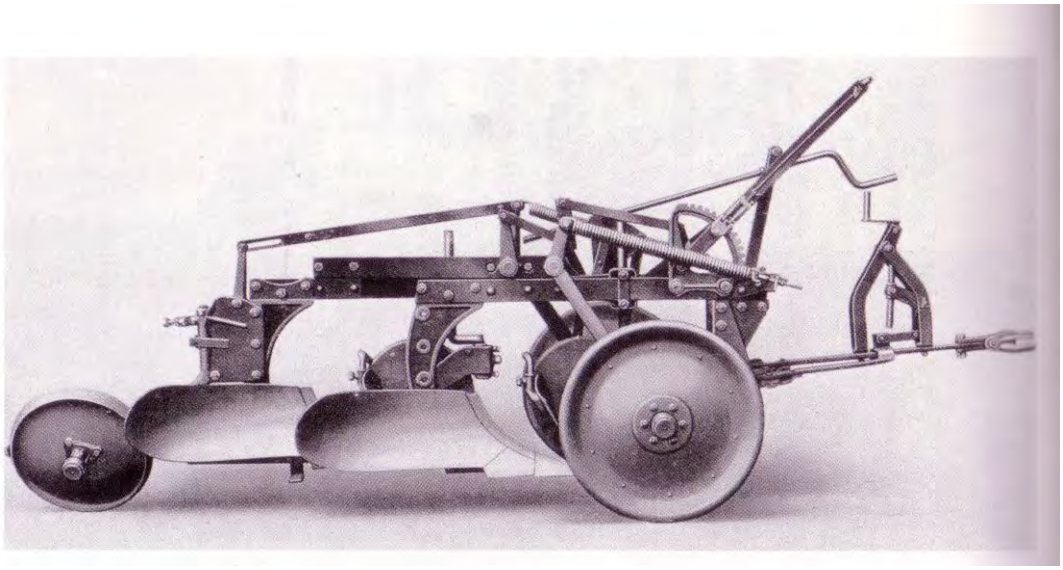
Type 7. A ridging plough, with mouldboard on each side of the beam for earthing up potatoes. A Ransome example. [TR RAN PN7246 p71b]



Type 8. Gallows plough. A type used mainly on light soils in the southern counties. This is one illustrated in the catalogues of Barrett, Exall & Andrewes of Reading. [RI8]



The main parts of a horse plough, illustrated in Howards' parts catalogue. [TR RAN P2/B19p10]



Double furrow trailed tractor plough, manufactured by the Ford Motor Company for the Fordson E27N Major (*from:* Brian Bell, *Fifty Years of Farm Machinery,* 1996)

APPENDIX SIX

List of museums completing the survey

Sincere thanks are due to all the individuals named for taking the time to respond to this survey. Their input is very much appreciated.

1	Veronica Hartwich	Aberdeenshire Farming Museum
2	Nigel Nixon	Acton Scott
3	John Cameron	Atholl Country Life
4	D Nash	Avoncroft
5	Seb Littlewood	Beamish
6	Roger Dowson	Beck Isle, Pickering
7	Sue Shave	Chiltern Open Air Museum
8	Sara Basquill	Church Farm, Skegness
9	Debbie Allen	Dales Countryside Museum
10	Adam Macro	Denny Abbey, Cambridgeshire
11	Sally Ackroyd	Gressenhall, Norfolk
12	Bob Powell	Highland Folk Museum
13	Fred Hartley	Leicestershire
14	Stephen Mael	Long Shop, Leiston, Suffolk
15	Matthew Richardson	Isle of Man
16	Lisa Harris	Museum of East Anglian Life
17	Ollie Douglas	Museum of English Rural Life
18	Sara Basquill	Museum of Lincolnshire Life
19	Duncan Dornan	National Museum of Country Life, Scotland
20	Jennifer Dunne	Normanby Park, Scunthorpe
21	James Arnold	Museum of Lakeland Life
22	Georgina Hiscock	Northleach/Cirencester
23	James	Wimborne, Dorset
24	Curator	Ramsey Rural Museum, Cambridgeshire
25	Alexa Barrow	Rural Life Centre, Tilford, Farnham, Surrey
26	Lorraine Cornwell	Rutland County Museum, Oakham
27	David Walker	Somerset Rural Life Museum, Glastonbury
28	Gareth Beech	National History Museum, St Fagans, Cardiff
29	Chris Copp	Shugborough Estate, Staffordshire
30	Pippa Griffith	Tiverton, Devon
31	Brian Wimsett	Brook Museum, Kent
32	David Rounce, Curatorial Assistant	Yorkshire Farming Museum,Murton, Yorks
33	Sandi Shallcross	Thornbury
34	John Evans	Usk Museum
35	Ruth Howard	Vale & Downland Museum, Wantage
36	Julian Bell	Weald & Downland Open Air Museum
37	Robin Hill/Anita Blythe, Collns officer	Hartlebury Castle Museum, Worcestershire
38	Peter Turvey	Science Museum, Wroughton